Filed by:
Kri Pelletier, Property Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3804 - kpelletier@sbasite.com

July 23, 2109

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
398 Pomfret Street, Pomfret, CT 06258
Latitude: 41.890094
Longitude: -71.955008
T-Mobile Site #: CT11525A_L600

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 147-foot level of the existing 168-foot Monopole Tower at 398 Pomfret Street, Pomfret, CT. The 168-foot tower is owned by SBA Properties, LLC. The property is owned by Pomfret School, Inc. T-Mobile now intends to replace three (3) existing antennas with three (3) new 600/700MHz antennas. The new antennas would be installed at the 147-foot level of the tower.

Planned Modifications:

TOWER

Remove:

- (3) 1-5/8" coax

Remove and Replace:

- (3) Commscope LNX-6515DS-VTM – Panel (Remove) / (3) RFS APXVAARR24_43-U-NA20 – Panel 600/700 MHz (Replace)
- (3) Ericsson KRY 112 144/1 TMA's (Remove) / (3) Ericsson KRY 112 489/2 TMA's (Replace)

Install New:

- (3) Ericsson Radio 4449 B71+B12 RRU's
- (3) 1-5/8" fiber

Existing Equipment to Remain (including Entitlements):

- (3) RFS APXV18-206516S-C-A20 – Panel 1900 MHz
- (3) Allen Telecom FE15501P77/75 TMA's
- (3) Kathrein 782 11056 Bias Ts
- (1) Low profile platform with reinforcement kit (Site Pro PRK-1245)
- (9) 1-5/8" coax

GROUND

Install New:

- Equipment inside existing 6201 cabinet

This facility was approved pending bond, by the Town's Board of Selectmen on December 6, 1999. On December 20, 1999, a donation to the Town's recreation land was accepted in lieu of surety bond and the application for a telecommunications tower was given final approval. There were no post construction stipulations set. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Pomfret's First Selectman, Maureen Nicholson, and Zoning Officer, Ryan Brais, as well as to the property owner. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modification will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modification will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-referenced telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kri Pelletier
Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3804 + T / 508.366.2610 + F
kpelletier@sbasite.com

Attachments

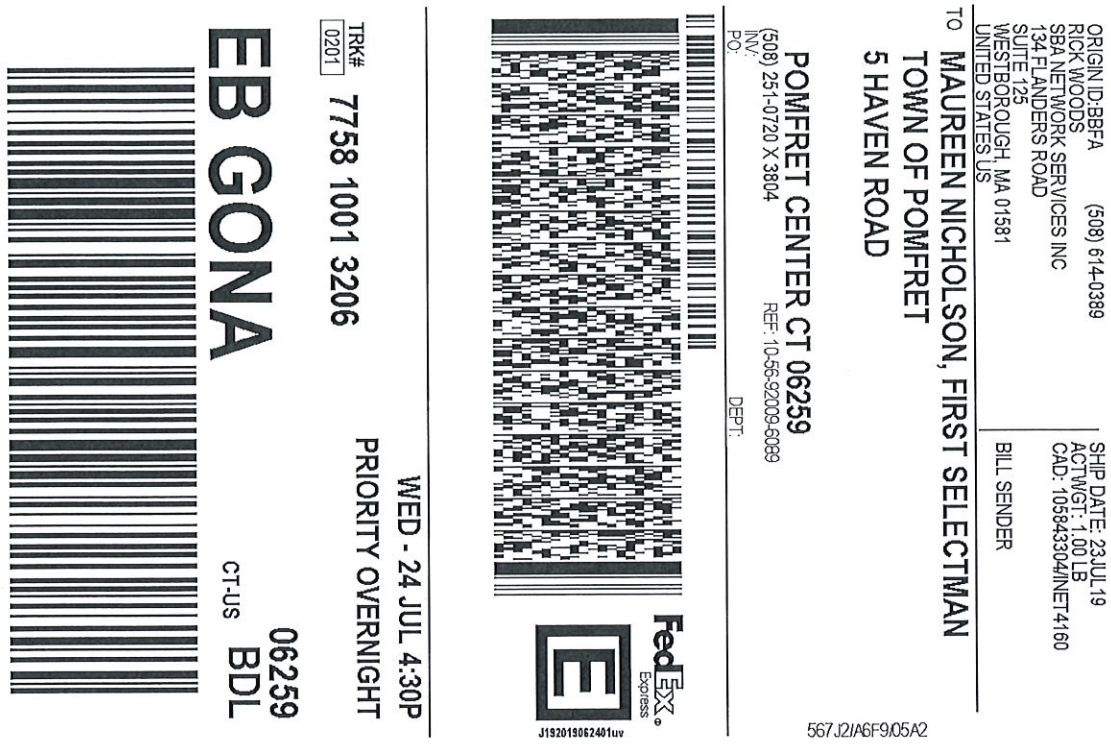
cc: Maureen A. Nicholson, First Selectman / with attachments
Town of Pomfret, 5 Haven Rd., Pomfret Center, CT 06259
Ryan Brais, Zoning Officer / with attachments
Town of Pomfret, 5 Haven Rd., Pomfret Center, CT 06259
Pomfret School, Inc. – Property Owner
298 Pomfret St., Pomfret Center, CT 06259

EXHIBIT LIST

Exhibit 1	Check Copy	
Exhibit 2	Notification Receipts	
Exhibit 3	Property Card	
Exhibit 4	Property Map	
Exhibit 5	Original Zoning Approval	Town of Pomfret 11/15/99
Exhibit 6	Construction Drawings	B&T Group dated 7/18/19
Exhibit 7	Structural Analysis	TES dated 7/5/19
Exhibit 8	Mount Analysis	TES dated 7/23/19
Exhibit 9	EME Report	Transcom dated 6/17/19

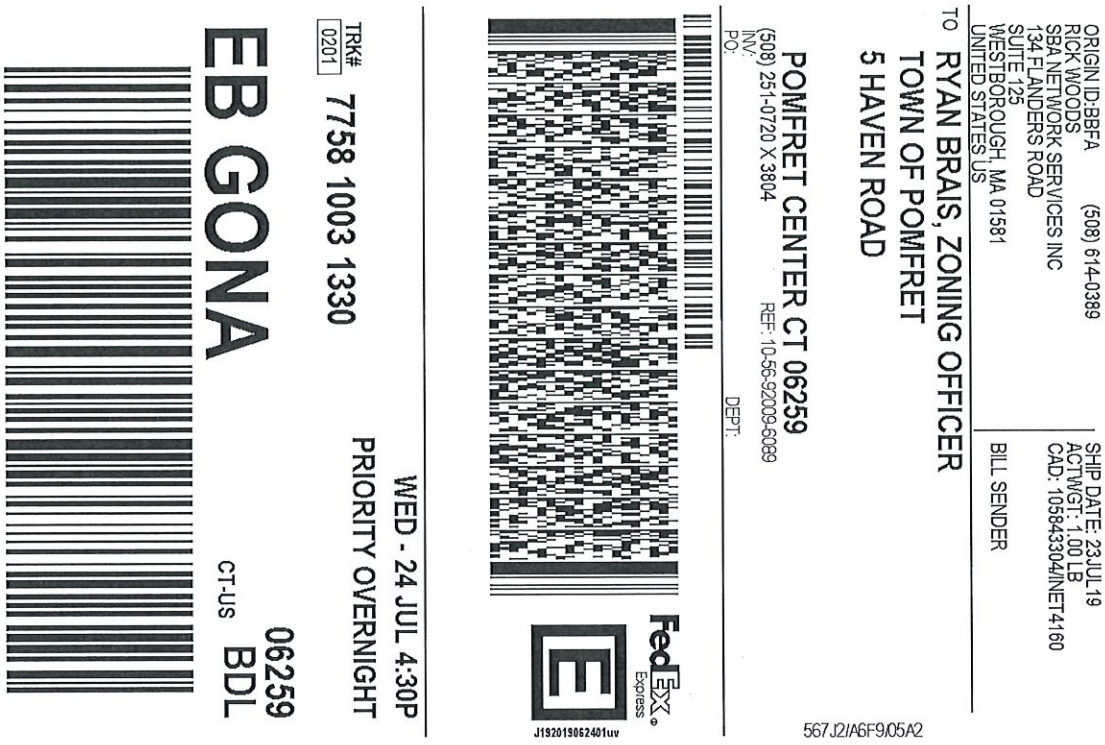
EXHIBIT 1

EXHIBIT 2



After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



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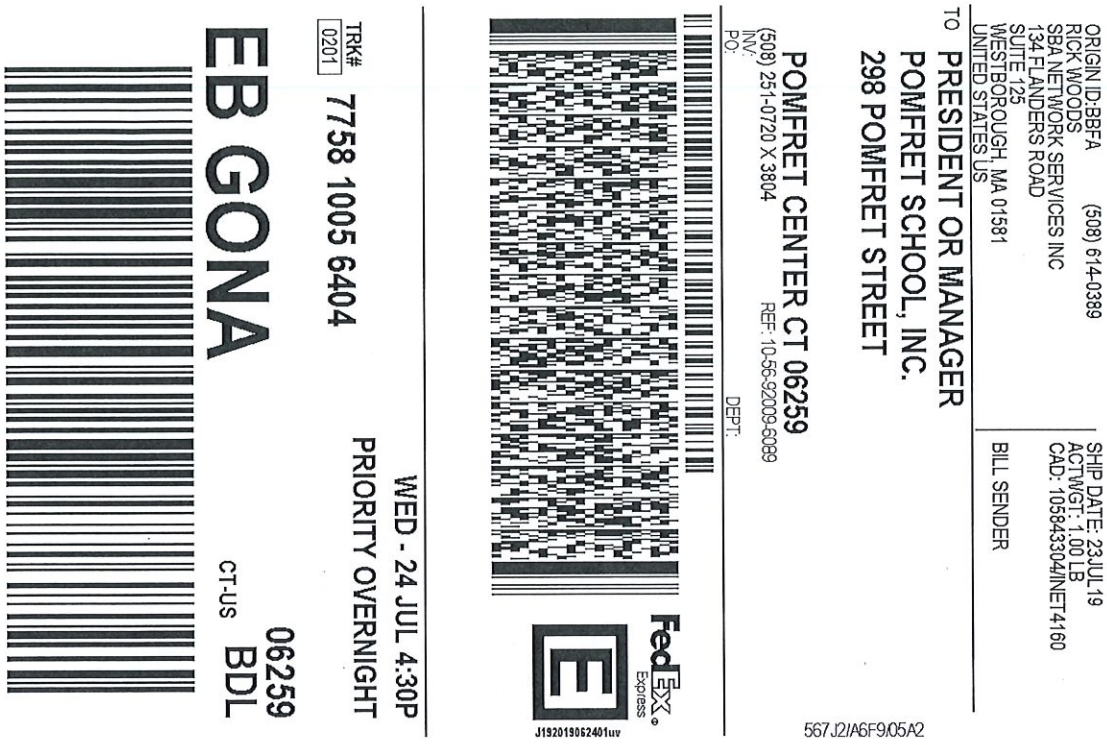

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EXHIBIT 3

398 POMFRET ST

Location	398 POMFRET ST	**Mblu**	14/ A/ 008.00/ /
Acct#	P0185900	**Owner**	POMFRET SCHOOL INC
Assessment	$24,101,000	**Appraisal**	$34,429,500
PID	584	**Building Count**	23

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$33,138,000	$1,291,500	$34,429,500

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$23,196,900	$904,100	$24,101,000

Owner of Record

Owner POMFRET SCHOOL INC
Co-Owner

Sale Price $0
Certificate
Book & Page 0030/0047
Sale Date 11/21/1928

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
POMFRET SCHOOL INC	$0		0030/0047	11/21/1928

Building Information

Building 1 : Section 1

Year Built: 1870
Living Area: 7,591
Replacement Cost
Less Depreciation: $564,900

Building Attributes	
Field	**Description**
STYLE	Office Bldg
MODEL	Comm/Ind

Stories:	2.5
Occupancy	6
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904C
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	0

Building Photo

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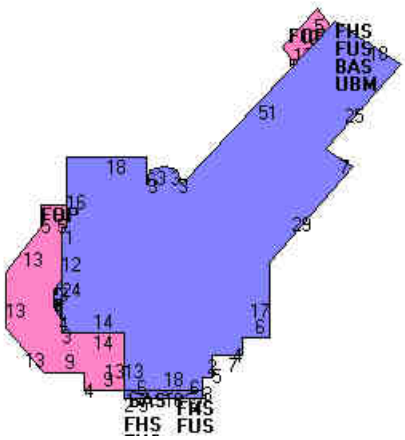
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
FUS	Finished Upper Story	3,041	3,041
BAS	First Floor	3,036	3,036
FHS	Finished Half Story	3,028	1,514
FOP	Open Porch	595	0
UBM	Unfin Bsmt	3,014	0
		12,714	7,591

Building 2 : Section 1

Year Built: 1955
Living Area: 24,484
Replacement Cost Less Depreciation: $3,879,800

Building Attributes : Bldg 2 of 23	
Field	**Description**
STYLE	School/College

MODEL	Ind/Comm
Stories:	1.75
Occupancy	1
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plywood Panel
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	14
% Comn Wall	0

Building Photo

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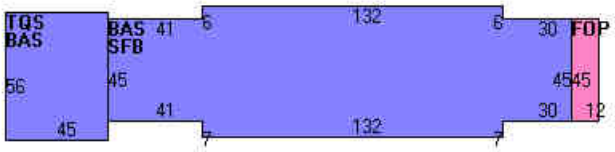
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	13,371	13,371
SFB	Finished Raised Bsmt	10,851	9,223
TQS	Three Quarter Story	2,520	1,890
FOP	Open Porch	540	0
		27,282	24,484

Building 3 : Section 1

Year Built: 1969
Living Area: 6,924
Replacement Cost
Less Depreciation: $1,280,000

Building Attributes : Bldg 3 of 23	
Field	**Description**
STYLE	Library
MODEL	Comm/Ind

Stories:	1
Occupancy	1
Exterior Wall 1	Pre-cast Concr
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904C
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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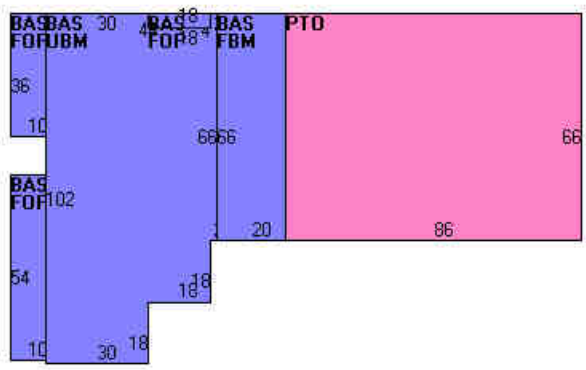
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	6,924	6,924
FBM	Finished Basement	1,320	0
FOP	Open Porch	972	0
PTO	Patio	5,676	0
UBM	Unfin Bsmt	4,632	0
		19,524	6,924

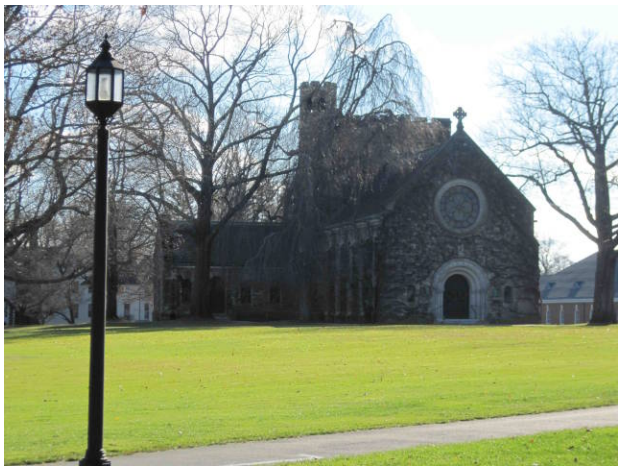
Building 4 : Section 1

Year Built: 1907
Living Area: 4,480
Replacement Cost
Less Depreciation: $856,100

Building Attributes : Bldg 4 of 23	
Field	**Description**
STYLE	Churches

MODEL	Ind/Comm
Stories:	1
Occupancy	1
Exterior Wall 1	Stone/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Cust Wd Panel
Interior Floor 1	Marble
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	20
% Comn Wall	0

Building Photo



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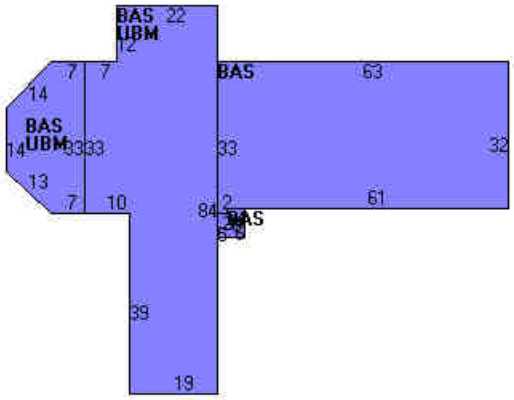
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,480	4,480
UBM	Unfin Bsmt	2,428	0
		6,908	4,480

Building 5 : Section 1

Year Built: 1958
Living Area: 10,211
Replacement Cost
Less Depreciation: $1,463,500

Building Attributes : Bldg 5 of 23	
Field	**Description**
STYLE	School/College
MODEL	Ind/Comm
Stories:	2
Occupancy	1

Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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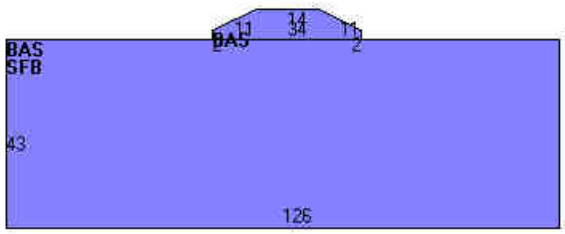
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	5,606	5,606
SFB	Finished Raised Bsmt	5,418	4,605
		11,024	10,211

Building 6 : Section 1

Year Built: 1900
Living Area: 8,303
Replacement Cost
Less Depreciation: $941,800

Building Attributes : Bldg 6 of 23	
Field	**Description**
STYLE	Aud/Gym
MODEL	Ind/Comm
Stories:	1
Occupancy	1

Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Plastered
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	14
% Comn Wall	0

Building Photo

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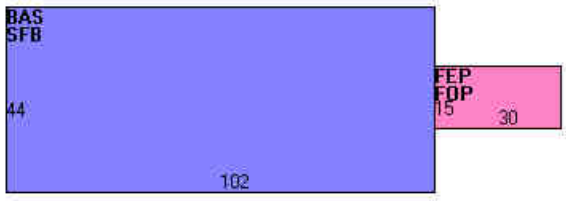
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,488	4,488
SFB	Finished Raised Bsmt	4,488	3,815
FEP	Finished Enclosed Porch	450	0
FOP	Open Porch	450	0
		9,876	8,303

Building 7 : Section 1

Year Built: 1900
Living Area: 17,523
Replacement Cost
Less Depreciation: $3,067,000

Building Attributes : Bldg 7 of 23	
Field	**Description**
STYLE	School/College
MODEL	Ind/Comm

Stories:	2.75
Occupancy	1
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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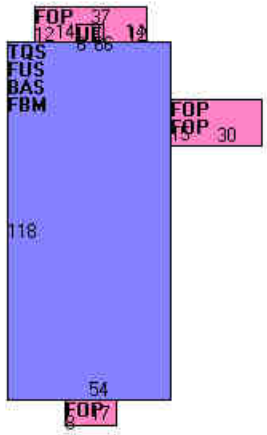
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	6,372	6,372
FUS	Finished Upper Story	6,372	6,372
TQS	Three Quarter Story	6,372	4,779
FBM	Finished Basement	6,372	0
FOP	Open Porch	1,426	0
UEP	Unfin Enclosed Porch	54	0
		26,968	17,523

Building 8 : Section 1

Year Built: 1900
Living Area: 11,834
Replacement Cost
Less Depreciation: $1,117,200

Building Attributes : Bldg 8 of 23	
Field	**Description**

STYLE	Dormitory
MODEL	Ind/Comm
Stories:	2
Occupancy	29
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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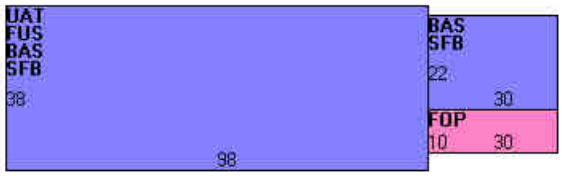
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,384	4,384
SFB	Finished Raised Bsmt	4,384	3,726
FUS	Finished Upper Story	3,724	3,724
FOP	Open Porch	300	0
UAT	Unfinished Attic	3,724	0
		16,516	11,834

Building 9 : Section 1

Year Built: 1900
Living Area: 13,853
Replacement Cost
Less Depreciation: $1,325,200

Building Attributes : Bldg 9 of 23	
Field	**Description**
STYLE	Dormitory

MODEL	Ind/Comm
Stories:	2
Occupancy	40
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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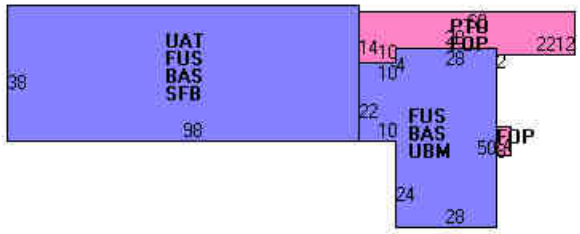
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	5,344	5,344
FUS	Finished Upper Story	5,344	5,344
SFB	Finished Raised Bsmt	3,724	3,165
FOP	Open Porch	716	0
PTO	Patio	684	0
UAT	Unfinished Attic	3,724	0
UBM	Unfin Bsmt	1,620	0
		21,156	13,853

Building 10 : Section 1

Year Built: 1900
Living Area: 13,853
Replacement Cost Less Depreciation: $1,325,200

Building Attributes : Bldg 10 of 23

Field	Description
STYLE	Dormitory
MODEL	Ind/Comm
Stories:	2
Occupancy	40
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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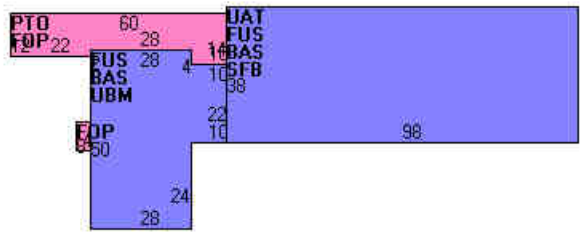
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	5,344	5,344
FUS	Finished Upper Story	5,344	5,344
SFB	Finished Raised Bsmt	3,724	3,165
FOP	Open Porch	716	0
PTO	Patio	684	0
UAT	Unfinished Attic	3,724	0
UBM	Unfin Bsmt	1,620	0
		21,156	13,853

Building 11 : Section 1

Year Built: 1900
Living Area: 11,834
Replacement Cost Less Depreciation: $1,117,200

Building Attributes : Bldg 11 of 23

Field	Description
STYLE	Dormitory
MODEL	Ind/Comm
Stories:	2
Occupancy	34
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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Building Layout

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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,384	4,384
SFB	Finished Raised Bsmt	4,384	3,726
FUS	Finished Upper Story	3,724	3,724
FOP	Open Porch	300	0
UAT	Unfinished Attic	3,724	0
		16,516	11,834

Building 12 : Section 1

Year Built: 1971
Living Area: 6,508
Replacement Cost
Less Depreciation: $832,400

Building Attributes : Bldg 12 of 23	
Field	**Description**
STYLE	Dormitory

MODEL	Ind/Comm
Stories:	1.75
Occupancy	11
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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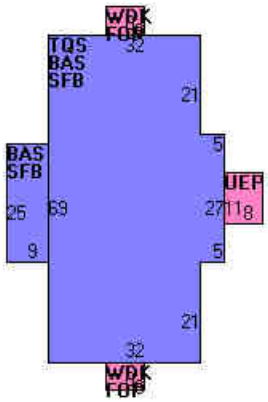
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	2,568	2,568
SFB	Finished Raised Bsmt	2,568	2,183
TQS	Three Quarter Story	2,343	1,757
FOP	Open Porch	96	0
UEP	Unfin Enclosed Porch	88	0
WDK	Deck	96	0
		7,759	6,508

Building 13 : Section 1

Year Built: 1920
Living Area: 72,166
Replacement Cost
Less Depreciation: $6,962,100

Building Attributes : Bldg 13 of 23	
Field	**Description**

STYLE	Aud/Gym
MODEL	Ind/Comm
Stories:	3
Occupancy	1
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Hardwood
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	18
% Comn Wall	0

Building Photo

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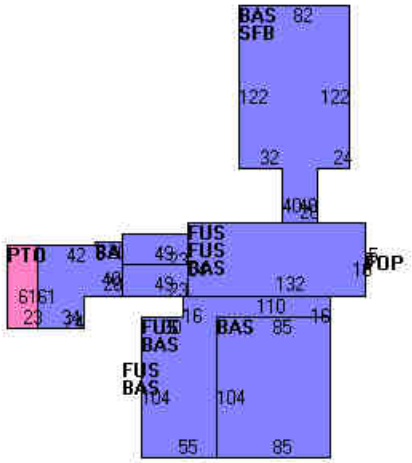
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	39,916	39,916
FUS	Finished Upper Story	22,863	22,863
SFB	Finished Raised Bsmt	11,044	9,387
FOP	Open Porch	50	0
PTO	Patio	1,403	0
		75,276	72,166

Building 14 : Section 1

Year Built: 1994
Living Area: 19,061
Replacement Cost Less Depreciation: $3,973,500

Building Attributes : Bldg 14 of 23	
Field	**Description**
STYLE	School/College

MODEL	Ind/Comm
Stories:	2
Occupancy	1
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	Drywall/Sheet
Interior Floor 1	Carpet
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Steam
AC Type	Central
Bldg Use	STATE EDUC MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	901L
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	0

Building Photo

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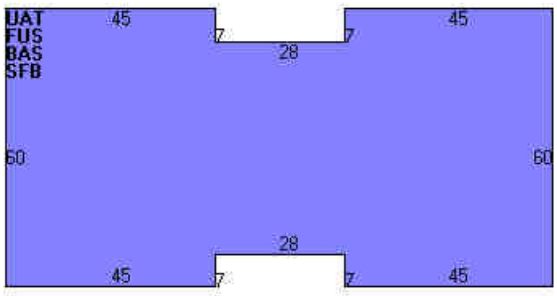
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	6,688	6,688
FUS	Finished Upper Story	6,688	6,688
SFB	Finished Raised Bsmt	6,688	5,685
UAT	Unfinished Attic	6,688	0
		26,752	19,061

Building 15 : Section 1

Year Built: 1965
Living Area: 32,502
Replacement Cost
Less Depreciation: $1,753,200

Building Attributes : Bldg 15 of 23	
Field	**Description**
STYLE	Skating Arena
MODEL	Ind/Comm

Stories:	1
Occupancy	1
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	16
% Comn Wall	0

Building Photo

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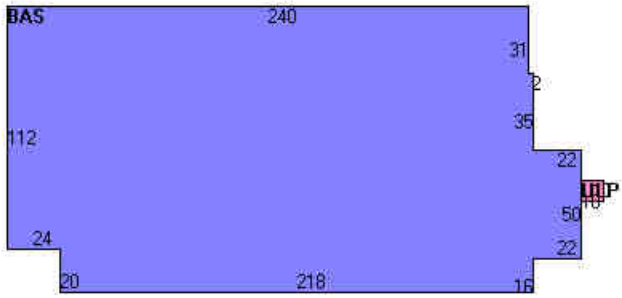
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	32,502	32,502
ULP	Loading Platform	100	0
		32,602	32,502

Building 16 : Section 1

Year Built: 1975
Living Area: 1,652
Replacement Cost
Less Depreciation: $115,700

Building Attributes : Bldg 16 of 23	
Field	**Description**
Style	Cape
Model	Residential
Stories:	1 1/2 Stories
Occupancy	1

Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	Hardwood
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	4 Bedrooms
Full Baths:	2
Half Baths:	0
Xtra Fixtrs:	
Total Rooms:	8
Extra Kitchens	
Whirlpool	
Fireplace	
Xtra Opening	
Blocked FPL	
Gas Fireplace	

Building Photo

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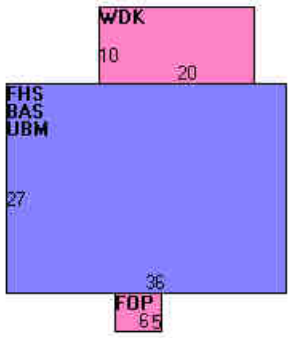
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	972	972
FHS	Finished Half Story	972	680
FOP	Open Porch	30	0
UBM	Unfin Bsmt	972	0
WDK	Deck	200	0
		3,146	1,652

Building 17 : Section 1

Year Built: 1900
Living Area: 1,403
Replacement Cost
Less Depreciation: $86,400

Building Attributes : Bldg 17 of 23	
Field	**Description**
Style	Cape

Model	Residential
Stories:	1.5
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Full Baths:	2
Half Baths:	0
Xtra Fixtrs:	
Total Rooms:	7
Extra Kitchens	
Whirlpool	
Fireplace	1
Xtra Opening	
Blocked FPL	
Gas Fireplace	

Building Photo

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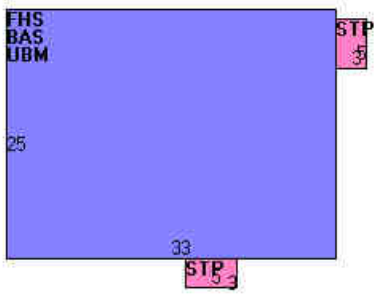
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	825	825
FHS	Finished Half Story	825	578
STP	Stoop	30	0
UBM	Unfin Bsmt	825	0
		2,505	1,403

Building 18 : Section 1

Year Built: 1900
Living Area: 2,245
Replacement Cost
Less Depreciation: $131,300

Building Attributes : Bldg 18 of 23	
Field	**Description**
Style	Conventional
Model	Residential

Stories:	1 3/4 Stories
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	Plaster
Interior Flr 1	Carpet
Interior Flr 2	Hardwood
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	5 Bedrooms
Full Baths:	2
Half Baths:	1
Xtra Fixtrs:	
Total Rooms:	9
Extra Kitchens	
Whirlpool	
Fireplace	1
Xtra Opening	1
Blocked FPL	
Gas Fireplace	

Building Photo

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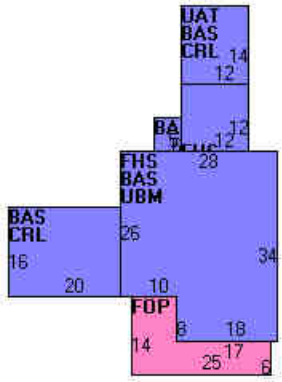
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,534	1,534
FHS	Finished Half Story	1,016	711
CRL	Crawl Space	632	0
FOP	Open Porch	214	0
UAT	Unfinished Attic	168	0
UBM	Unfin Bsmt	872	0
		4,436	2,245

Building 19 : Section 1

Year Built: 1900
Living Area: 1,225
Replacement Cost
Less Depreciation: $77,700

Building Attributes : Bldg 19 of 23	
Field	**Description**

Style	Ranch
Model	Residential
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Wood on Sheath
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Full Baths:	1
Half Baths:	1
Xtra Fixtrs:	
Total Rooms:	5 Rooms
Extra Kitchens	
Whirlpool	
Fireplace	
Xtra Opening	
Blocked FPL	
Gas Fireplace	

Building Photo

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Building Layout

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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,225	1,225
FCP	Carport	216	0
UST	Unfinished Storage	84	0
WDK	Deck	192	0
		1,717	1,225

Building 20 : Section 1

Year Built: 1900
Living Area: 2,352
Replacement Cost
Less Depreciation: $140,300

Building Attributes : Bldg 20 of 23	
Field	**Description**
Style	Conventional
Model	Residential

Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	Plaster
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Full Baths:	2
Half Baths:	1
Xtra Fixtrs:	
Total Rooms:	8
Extra Kitchens	
Whirlpool	
Fireplace	2
Xtra Opening	
Blocked FPL	
Gas Fireplace	

Building Photo

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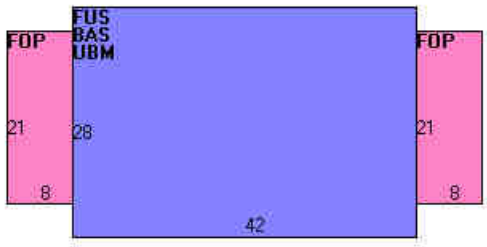
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,176	1,176
FUS	Finished Upper Story	1,176	1,176
FOP	Open Porch	336	0
UBM	Unfin Bsmt	1,176	0
		3,864	2,352

Building 21 : Section 1

Year Built: 2002
Living Area: 2,611
Replacement Cost
Less Depreciation: $192,500

Building Attributes : Bldg 21 of 23	
Field	**Description**
Style	Cape
Model	Residential

Stories:	1 1/2 Stories
Occupancy	1
Exterior Wall 1	Cedar or Redwd
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Full Baths:	2
Half Baths:	1
Xtra Fixtrs:	1
Total Rooms:	8 Rooms
Extra Kitchens	
Whirlpool	
Fireplace	1
Xtra Opening	1
Blocked FPL	
Gas Fireplace	

Building Photo

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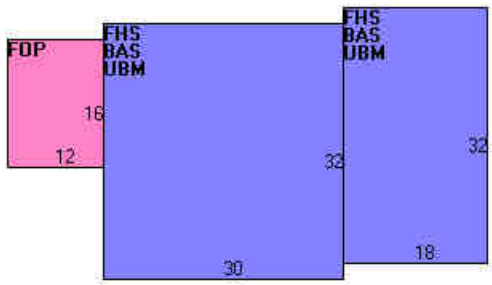
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,536	1,536
FHS	Finished Half Story	1,536	1,075
FOP	Open Porch	192	0
UBM	Unfin Bsmt	1,536	0
		4,800	2,611

Building 22 : Section 1

Year Built: 2002
Living Area: 6,900
Replacement Cost
Less Depreciation: $624,600

Building Attributes : Bldg 22 of 23	
Field	**Description**
STYLE	Garage/Office
MODEL	Ind/Comm

Stories:	1
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Wood Truss
Roof Cover	Corrug Asb
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	Central
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	904I
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	0

Building Photo

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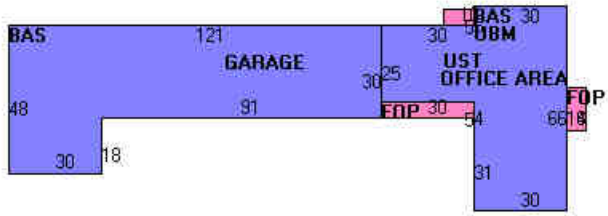
Building Layout



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Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	6,900	6,900
FOP	Open Porch	234	0
UBM	Unfin Bsmt	2,730	0
UST	Unfinished Storage	50	0
		9,914	6,900

Building 23 : Section 1

Year Built: 2008
Living Area: 2,040
Replacement Cost
Less Depreciation: $506,900

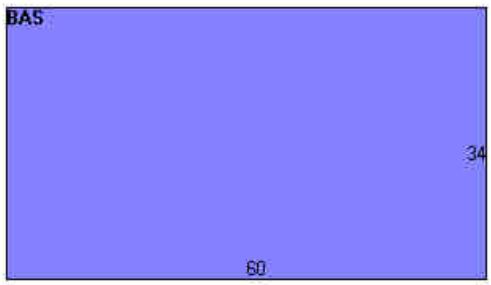
Building Attributes : Bldg 23 of 23	
Field	**Description**
STYLE	Clubs/Lodges
MODEL	Comm/Ind

Stories:	1
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Wood Laminate
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	Central
Bldg Use	PVT SCHOOL MDL-96
Total Rooms	2
Total Bedrms	0
Total Baths	2
1st Floor Use:	
Heat/AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	

Building Photo

(http://images.vgsi.com/photos/PomfretCTPhotos//default.jpg)

Building Layout



(http://images.vgsi.com/photos/PomfretCTPhotos//Sketches/584

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,040	2,040
		2,040	2,040

Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
A/C	AIR CONDITIONING	2670 S.F.	$5,000	22
ELV1	ELEVATOR	3 STOPS	$83,700	14
FPL3	2ST COMM FPL	1 UNITS	$1,700	9
MEZ2	FINISHED	228 S.F.	$1,900	4
MEZ2	FINISHED	660 S.F.	$4,900	6
SPR1	SPRINKLERS-WET	16516 S.F.	$8,200	8
SPR1	SPRINKLERS-WET	16516 S.F.	$8,200	11

SPR1	SPRINKLERS-WET	21156 S.F.	$10,500	10
SPR2	WET/CONCEALED	7759 S.F.	$6,700	12
FPL3	2ST COMM FPL	1 UNITS	$1,700	10
MEZ2	FINISHED	3848 S.F.	$33,700	3
SPR1	SPRINKLERS-WET	21156 S.F.	$10,500	9
SPR2	WET/CONCEALED	26752 S.F.	$27,400	14
A/C	AIR CONDITIONING	1320 S.F.	$1,900	3
FPL3	2ST COMM FPL	3 UNITS	$4,900	1
A/C	AIR CONDITIONING	12000 S.F.	$14,900	13
FPO	COMM FPL - XTRA OP	1 UNITS	$500	1
ELV1	ELEVATOR	5 STOPS	$93,000	13
SPR1	SPRINKLERS-WET	12714 S.F.	$5,900	1
SPR2	WET/CONCEALED	75276 S.F.	$51,300	13
MEZ2	FINISHED	1680 S.F.	$12,500	13

Land

Land Use

Use Code 904C
Description PVT SCHOOL MDL-94
Zone PSR
Neighborhood 800
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 141.24
Frontage 0
Depth 0
Assessed Value $904,100
Appraised Value $1,291,500

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FGR1	Garage - Ave			2636 S.F.	$34,300	13
PAT2	Patio - Good			6768 S.F.	$27,100	3
PAV1	PAVING-ASPHALT			120000 S.F.	$54,000	1
TEN	Tennis Court			4 UNITS	$56,000	15
BRN5	2S Barn			2880 S.F.	$40,300	22
PAT1	Patio - Ave			400 S.F.	$1,000	12
SHD1	Shed			360 S.F.	$2,500	13
TNK2	3000-10000 GAL			1000 GALS	$400	15
BRN8	Pole Barn			1440 S.F.	$10,800	22
SHD1	Shed			192 S.F.	$1,300	13
SHD1	Shed			96 S.F.	$700	15
SHD2	Shed - Good			96 S.F.	$900	13
COM	COMM BLDG			920 UNITS	$92,000	3
SHD2	Shed - Good			375 S.F.	$6,800	1

SHD2	Shed - Good			375 S.F.	$6,800	1
SHD2	Shed - Good			375 S.F.	$6,800	1
TNK1	TANK-UNDERGRND			120000 GALS	$66,000	13
SHD2	Shed - Good			375 S.F.	$6,800	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$32,631,100	$1,291,500	$33,922,600
2017	$32,631,100	$1,291,500	$33,922,600
2016	$32,631,100	$1,291,500	$33,922,600

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$22,842,100	$904,100	$23,746,200
2017	$22,842,100	$904,100	$23,746,200
2016	$22,842,100	$904,100	$23,746,200

EXHIBIT 4

Google Maps 398 Pomfret St

Map data ©2019 100 ft

398 Pomfret St

Pomfret Center, CT 06259

Directions Save Nearby Send to your phone Share

V2MQ+M6 Pomfret, Connecticut

Photos

At this location

Eastern Connecticut Volleyball Club
Club · 398 Pomfret St

Pomfret School
4.7 ★★★★½ (7)
Private school · 398 Pomfret St

EXHIBIT 5

TOWN OF POMFRET
BOARD OF SELECTMEN'S MINUTES
MEETING OF DECEMBER 6, 1999

Present: David Patenaude, First Selectman, Thomas Pahl and Charles Balch, Selectmen. Others Present: Robert Ikonen, Ford Fay, and Esther McNany and Maureen Chmielecki of SBA, Inc.

Dave Patenaude opened the meeting at 7:01 P.M. The minutes of the previous meeting of November 15, 1999 were duly approved.

Citizen Participation: Robert Ikonen informed the Selectmen of Pomfret's plans to participate in the "Israel Putnam March". The Democratic Town Committee has volunteered to help with food preparation. There will be one rest stop in Pomfret at the Old Town House. The "march" is scheduled for April 28-30, 2000. There may be a craft fair and Sally Rogers may sing or Donna Dufresne may perform her Dorcas Higginbotham impersonation. The Boy Scouts plan on having a honor guard, and hopefully, the local VFW may get involved. Discussion followed regarding road security.

Communications: None

Current Business

1. Road Issues:

A. Kearney Fork Speed Humps. Dave reported that he had talked to both the State Police and our insurance company about this issue. Both of which were not crazy about the idea. The police mentioned that they could post a cruiser there to help with the speed problems and was concerned about the signs. Dave has asked the State DOT to do a traffic survey. Chuck mentioned that a few citizens in the area have complained that some cars go through the Kearney Rd. and Kearney Fork intersection without stopping.

B. Wrights Crossing Road Bridge-Guardrails. Dave read a letter from WMC Engineering regarding the guardrails. The letter states that extending the rails would cause a hardship to the neighbor and on the other side of the road to the Wyndham Land Trust. Also that the inspection results state that the guardrails are to specification. Discussion followed and Tom Pahl said he would talk to Don Aubrey, Town Engineer.

2. Wolf Den Springs, LLC. Letters regarding the wetland disturbances have been received from the Army Corps of Engineers and from Don Aubrey, Town Engineer. Dave reported that he is writing to request a joint meeting with the Army Corps and the Board of Selectmen, Inland Wetlands Commission, James Rabbitt, Donald Aubrey, and the applicant, Stephen Perrone. Discussion followed. Tom had concerns regarding working out issues sited with Mr. Perrone. He felt the Selectmen should take the recommendations of Don Aubrey seriously and act on them in systemactic way.

3. SBA, Inc. Application for Wireless Telecommunications Structure-Tyrone Road.

Esther McNany of SBA, Inc. submitted the application packet. SBA, Inc. will be using the existing entrance of the Morissettes to get to the site. They have received a declaratory ruling from the Wetlands Commission that a wetlands permit is not required and have received site plan approval from the NEDDH. The tower will be on Pomfret

School property, should have minimal visual impact, and is to extend coverage along Route 44. The tower will be the same height as the existing SNET tower and. Ms. McNany stated that all requirements of the Town Ordinance have been complied with. Discussion followed on the expected cell tower users, whether the use of existing buildings and/or structures were considered. Tom asked what other areas are not covered and will there be other towers. Ms. McNany said there is a need along Route 97 and there may possibily be two more towers. The next tower may be on Easter Hill.

Dave asked about the bond requirement and how this was handled with a $10,000 in lieu of contribution with the last tower SBA did. Discussion followed on this issue and the 65 day timeline for approval. The application fee of $1,000 has been paid. The Selectmen requested the amount of $15,000 that could be paid in lieu of the security bond. SBA, Inc. is to return back to the next meeting with an answer to this request.

New Business

1. Billboards-Moratorium. Dave asked the Selectmen for support to declare a six month moratorium on billboards. He reported that we have (recently) received three applications for these in Town. and that he would like to bring an ordinance to Town Meeting regarding this. Discussion followed. Tom made motion for a moratorium to construct billboards for six months that began December 1, 1999. Dave seconded the motion. Motion was approved with two in favor and Chuck Balch abstaining due to a conflict of interest.

Other Business:

Tom reported that he attended the Tobacco Needs Assessment in NE CT meeting. He said there was a poor turn out and felt bad for Bob Brex, who sponsored this. Grant money is available to Towns for materials to educate kids on tobacco awareness.

Chuck reported that both a copy of the letter to John LaConche and a proposal letter was submitted at the NELTA board of trustee meeting. Mr. LaConche felt the proposal has a good chance and it will go officially before the board in January. Chuck also reported that the Recreation Committee recommends that the Board of Selectmen go ahead with the soccer field(s) at the Murdock property. Also an extension until mid year 2001 has been received on the DEP recreation grant. The Committee also wishes that the Selectmen take a positive step to use the Murdock property for the grant monies. Discussion followed. Discussion took place on other possible land for recreation. Chuck would like to make inquiries regarding the Modica land with the Recreation Committee.

Discussion took place regarding the Open Space Land Trust Ordinance. The ordinance has been give to the Selectmen for action to take to Town Meeting.

Approve Schedule of Meetings Year 2000. Motion was duly passed to approve the schedule of meetings for 2000 as presented.

Tax Refunds/Abatements: None

Gun Permits: None

Approval to Pay Bills: Manual checks #6076-6086 dated 11/17-11/30/99 for $48,510.37 and checks #6087-6089 dated 12/1/99 for $883.76; checks #17950-17952 dated 11/17 for $897.96; and bill checks dated 12/6/99 for $65,388.44. Motion was duly passed to approve the bills as presented.

Adjournment: Motion was duly approved and the meeting adjourned at 8:40 P.M.

Respectfully submitted, Cheryl A. Grist, Clerk

TOWN OF POMFRET
BOARD OF SELECTMEN'S MINUTES
MEETING OF DECEMBER 20, 1999

Present: David Patenaude, First Selectman, Charles Balch and Thomas Pahl, Selectmen. Others Present: Esther McNany of SBA, Inc. and Henry Woodbridge.

David Patenaude opened the meeting at 8:07 A.M. The minutes of the previous meeting of December 6, 1999 were duly approved with one correction under Other Business from "Also an extension from the year 2000" to "2001".

Citizen Participation: None

Communications: None

Current Business

1. **Road Issues**-None at this time.

2. **SBA, Inc. Application for Wireless Telecommunications Structure-Tyrone Road.** Esther McNany of SBA, Inc. presented the Board of Selectmen with a check in the amount the $15,000 as a donation for recreation land in lieu of the surety bond. The check was accepted by the Selectmen. Motion was made by Tom Pahl to approve the application, Chuck Balch seconded and discussion followed. Dave Patenaude mentioned that a pilot called to say the tower is in the direct line with the Woodstock Airport strip. Esther McNany said that since this is a small, private airport FAA did not require them to take this into consideration. Ms. McNany said the cell tower is below the height that would require lighting. The Selectmen felt all was in order. Motion was voted and approved unanimously.

3. **Recreation Site Committee-Report.** Chuck Balch reported that the Committee would like the Selectmen to take whatever steps necessary so they can begin to take steps to use the Murdock property for a soccer field and senior baseball field. Chuck made a motion to begin development at the Murdock property for recreation purposes. Tom seconded and discussion followed. Chuck said they would like first to make a practice field for soccer and a senior league baseball field. He was not sure on the specifics or exact plans of how and where. Dave reminded him that to do this would include the entrance off Route 101 issue and the fact that we are still taking gravel from this area. Tom felt the Selectmen need a proposal of exactly what the Committee plans on doing and who will handle what needs to be done. Discussion also followed on: 1) the recreation grant and the money to match this; 2) the issue of investing the money for a short term answer to immediate needs; 3) what about the gravel issue; 4) and who will be overseeing the construction etc. Tom Pahl felt the Selectmen would need to check with the State DOT regarding the entrance off Route 101.

There was much discussion on what authority the Recreation Site Committee has or doesn't have and would a new committee need to be appointed or should the Selectmen handle this. Discussion followed on whether the Selectmen should act on the Committee's recommendation and/or find another piece of property better suited. Chuck said the Committee felt, in order to meet the present needs and to use the recreation grant and not lose it, this was the best answer a this time. Chuck amended the motion that the Board of Selectmen accept the recommendation of the Site Committee that we develop recreation in two locations and that one location be the Murdock property. Tom seconded the motion and more discussion followed. Tom felt that they should still keep exploring other pieces of land. He said he would be willing to help on the Committee. He said he would be

TOWN ON POMFRET
APPLICATION FOR WIRELESS TELECOMMUNICATION STRUCTURES

Permit Number:
Date Submitted: 10/29/99 /ccg
Received by:
(Section 2.3.1) Fee: $1000.00 Pd 10/29/99 CK#05363

(Procedures for this application are explained in the Wireless Telecommunication ordinance)

APPLICANT TO FILL OUT THIS SECTION - Please print

Applicant's Name SBA, Inc. **Phone** (860) 439 - 0150
Address 125 Shaw St, New London CT 06320 **Fax #** (860) 439 - 0159

Co-Applicant's Name _____ **Phone** _____
Address _____ **Fax #** _____

If there is an agent for the applicant, please fill in name below:
Name Esther McNany **Phone** (860) 439 - 0150
Address SAME AS APPLICANT **Fax #** (860) 439 - 0159

LOCATION OF TOWER

Owner of the land Pomfret School Inc. Phone (860) 963 - 5208
Address 398 Pomfret St, Pomfret, CT 06258
Street Name Pomfret St. Map 19 Block C Lot 001 (Get from Assessor's office)
Nearest roads/intersections: Tyrone Rd.

PROPOSED ACTIVITY: (check those that apply)

☐ Commercial ☐ Industrial ☑ Other-specify Wireless Telecommunication Facility
☐ New Construction ☐ Addition ☐ Alteration

Please provide the following information with this application:

a. Site Plan Ingredients (section 3.2) Five (5) copies of site plan - 24" x 36" at a scale of 1" = 40' prepared by a professional land surveyor licensed in the State of Connecticut.
b. Name of Connecticut Registration Number of Land Surveyor and Professional Engineer. All final plans must have original signatures on maps.
c. Soil Erosion and Sediment Control Plan (section 3.3) a map of 1" = 50'
d. Name of Soil Scientist David H. Lord
e. Architectural Plans (see section 4.1.2)
f. Fees: $1,000.00. Please note: If the cost to process and review the application exceeds the initial fee of $1000.00, the applicant shall pay all associated costs incurred by the Commision and/or the Town prior to the issuance of a permit. (Section 2.3).

The undersigned hereby acknowledges that this application, to the best of his/her knowledge, conforms to the Wireless Telecommunications Regulations Ordinance of the Town of Pomfret and that approval of the plan is contingent upon compliance with all requirements of said ordinance. The undersigned hereby authorizes the Pomfret Board of Selectmen, or its agent, to enter upon the property for the purpose of inspection and enforcement of said regulations.The undersigned warrants and guarantees that all of the improvements as shown on the final approved site plan map will be installed in a good and workmanlike manner, and individually and severally guarantee to provide all necessary funds with respect thereto.

Signed _____ Dated 10/20/99
(Applicant)

Signed Pomfret School, Inc. _____, Bus Mgr Dated 10-28-99
(Property Owner)

Note: Before site plan approval is granted, the applicant shall file a surety with the Board of Selectmen payable to the Treasurer of the Town of Pomfret and in a form satisfactory to the Town Counsel and in an amount approved by the Board of Selectmen as sufficient to guarantee completion of those items specified by the Board of Selectmen and in conformity with the provisions of these Regulations or any amendments thereto in force at the time of filing. Such surety shall be held by the Town Clerk who shall not be authorized by the Board of Selectmen to release such bond until written certification has been received from the Building Official that all of the requirements of these Regulations have been fully satisfied.

A public hearing ☐ was or ☒ was not held on this application. (Section 3.1.1)
Applicant has compiled with all requirements of the Ordinance ☐ yes. ☒ no. In no, explain, In Lieu of A Surety Bond the Town Accepted A Payment of $15,000.

Signed _____ Date 1-10-99
First Selectmen or Commission Chairman

wireapp.wpd

EXHIBIT 6

SITE NAME: CT525/SBA POMFRET #2

398 POMFRET STREET
POMFRET, CT 06258

SITE NUMBER: CT11525A

SITE CONFIG: 67D04G

PROJECT NOTES

GENERAL NOTES:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T–MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC, ROUTINE MAINTENANCE AND THEREFORE, DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T–MOBILE NORTHEAST LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL STRUCTURAL NOTES:

TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE–BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

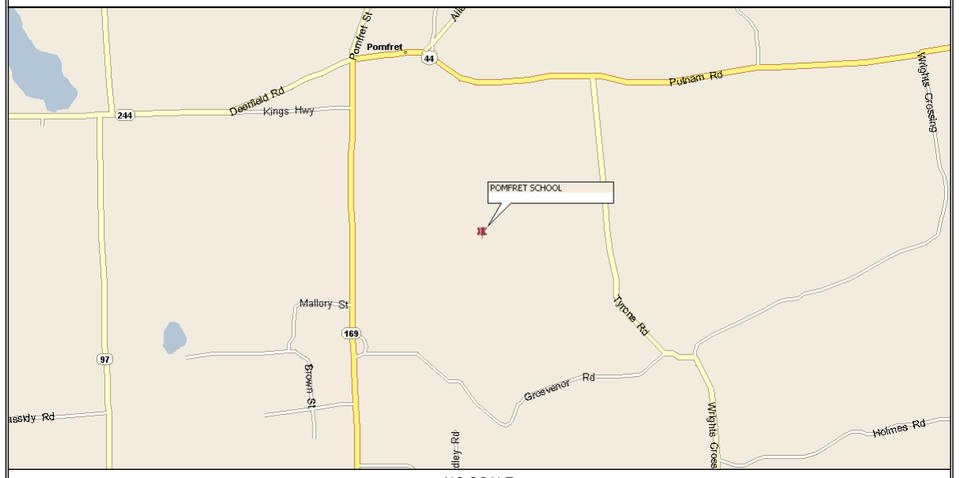
ENGINEER OF RECORD HAS MADE A VISUAL ASSESSMENT ONLY AND HAS DETERMINED THAT THE EXISTING ANTENNA MOUNT SHALL BE REPLACED OR MODIFIED TO ACCOMMODATE ANY ADDITIONAL EQUIPMENT LOAD. STRUCTURAL DESIGNS AND DETAILS AS SHOWN HEREIN FOR STRUCTURAL MODIFICATIONS OF THE EXISTING ANTENNA MOUNT ARE PRELIMINARY ONLY AND FINAL CONSTRUCTION DETAILS ARE SUBJECT TO CHANGE PENDING THE COMPLETION OF AN ANTENNA MOUNT STRUCTURAL ASSESSMENT.

B+T GROUP ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTIONS ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES.

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS	LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS NOT PERMITTED	DIPLEXERS:	UNRESTRICTED
SECTOR B:	ACCESS NOT PERMITTED	RADIO CABINETS:	UNRESTRICTED
SECTOR C:	ACCESS NOT PERMITTED	PPC DISCONNECT:	UNRESTRICTED
RRH:	ACCESS NOT PERMITTED	MAIN CIRCUIT D/C:	UNRESTRICTED
TMA:	ACCESS NOT PERMITTED	NIU/T DEMARC:	UNRESTRICTED
GPS/LMU:	CAUTION: OSHA APPROVED PORTABLE 6' STEP–LADDER REQUIRED	OTHER/SPECIAL:	NONE

LOCATION MAP



NO SCALE

PROJECT INFORMATION

SCOPE OF WORK:	UNMANNED TELECOMMUNICATIONS FACILITY T–MOBILE EQUIPMENT MODERNIZATION
ZONING JURISDICTION: (TOWN OF POMFRET)	BASED ON INFORMATION PROVIDED BY T–MOBILE, REGULATORY COMPLIANCE AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409 AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW AND LIMITED/PARTIAL ZONING PRE–EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW OR ADMINISTRATIVE REVIEW).
SITE ADDRESS:	398 POMFRET STREET POMFRET, CT 06258
LATITUDE: LONGITUDE:	41.8903° N 71.9550° W
JURISDICTION:	NATIONAL, STATE & LOCAL CODES & ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
TOWER OWNER:	SBA PROPERTIES, LLC
SBA SITE ID:	CT02217–S
SBA SITE NAME:	POMFRET SCHOOL
SBA REGIONAL SITE MANAGER:	STEPHEN ROTH (860) 539–4920 sroth@sbasite.com

APPROVALS

TITLE	SIGNATURE	DATE
PROJECT MANAGER:		
CONSTRUCTION:		
RF ENGINEERING:		
ZONING/SITE ACQ.:		
OPERATIONS:		
TOWER OWNER:		

ACCEPTANCE DOES NOT CONSTITUTE APPROVAL OF DESIGN, CALCULATIONS, ANALYSIS, TEST METHODS OF MATERIALS DEVELOPED OR SELECTED BY THE SUBCONTRACTOR AND DOES NOT RELIEVE SUBCONTRACTOR FROM FULL COMPLIANCE WITH CONTRACTUAL OBLIGATIONS.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T–1	TITLE SHEET	1
GN–1	GENERAL NOTES	1
C–1	COMPOUND AND ELEVATION PLAN	1
C–2	EXISTING AND PROPOSED ANTENNA PLANS	1
C–3	DETAILS	1
RF–1	RFDS DIAGRAMS	1
E–1	GROUNDING DETAILS AND NOTES	1

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B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581

CT11525A

CT525/SBA POMFRET #2

398 POMFRET STREET
POMFRET, CT 06258

PROJECT NO:	136016.002.01
CHECKED BY:	FWP

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	6/24/19	STH	FOR REVIEW
1	7/18/19	JJD	FOR REVIEW

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
7/18/19

SHEET NUMBER:	REVISION:
T-1	1

GROUNDING NOTES:

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI OR NFPA) LIGHTING PROTECTION CODE AND GENERAL COMPLIANCE WITH TELECORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATION OR ADVERSE FINDING TO THE CONTRACTOR FOR RESOLUTION.

2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GE'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 & 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BUS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.

6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

7. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDED FITTINGS OR BY BINDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20' OR MORE OF 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BAR TINNED COPPER GROUND WIRE, PER NEC 250.50.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   - CONTRACTOR: SBA COMMUNICATIONS CORP.
   - SUBCONTRACTOR: GENERAL CONTRACTOR (CONSTRUCTION)
   - OWNER: T-MOBILE

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALL AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY, SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS NOTED OTHERWISE, PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WETHER SHALL BE HOT DIPPED GALVANIZED. TOUCH-UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH UMTS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE SITES."

17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW, USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

19. SINCE THE CELL SITE IS ACTIVE, AL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION, EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT IF ANY DANGEROUS EXPOSURE LEVELS.

20. APPLICABLE BUILDING CODES:
    SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
    - BUILDING CODE: IBC 2015
    - ELECTRICAL CODE: NEC 2017

    SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

    AMERICAN CONCRETE INSTITUTE (ACI) 318;
    BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.

    AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

    MANUAL OF STEEL CONSTRUCTION; ASD, FOURTEENTH EDITION

    TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G;
    STRUCTURAL STANDARDS FOR STEEL

    ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES;
    REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHOD OF CONSTRUCTION OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	GC	GENERAL CONTRACTOR	REF.	REFERENCE
AWG	AMERICAN WIRE GAUGE	MAX.	MAXIMUM	REQ.	REQUIRED
BCW	BARE COPPER WIRE	MGB	MASTER GROUND BAR	RF	RADIO FREQUENCY
BTS	BASE TRANSCEIVER STATION	MIN.	MINIMUM	T.B.D.	TO BE DETERMINED
(E)	EXISTING	(N)	PROPOSED	T.B.R.	TO BE REMOVED
EG	EQUIPMENT GROUND	N.T.S.	NOT TO SCALE	T.B.R.R.	TO BE REMOVED AND REPLACED
EGR	EQUIPMENT GROUND RING	RE:	REFERENCE	(TYP)	TYPICAL

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WESTBOROUGH, MA 01581

CT11525A

CT525/SBA POMFRET #2

398 POMFRET STREET
POMFRET, CT 06258

PROJECT NO:	**136016.002.01**
CHECKED BY:	**FWP**

ISSUED FOR:

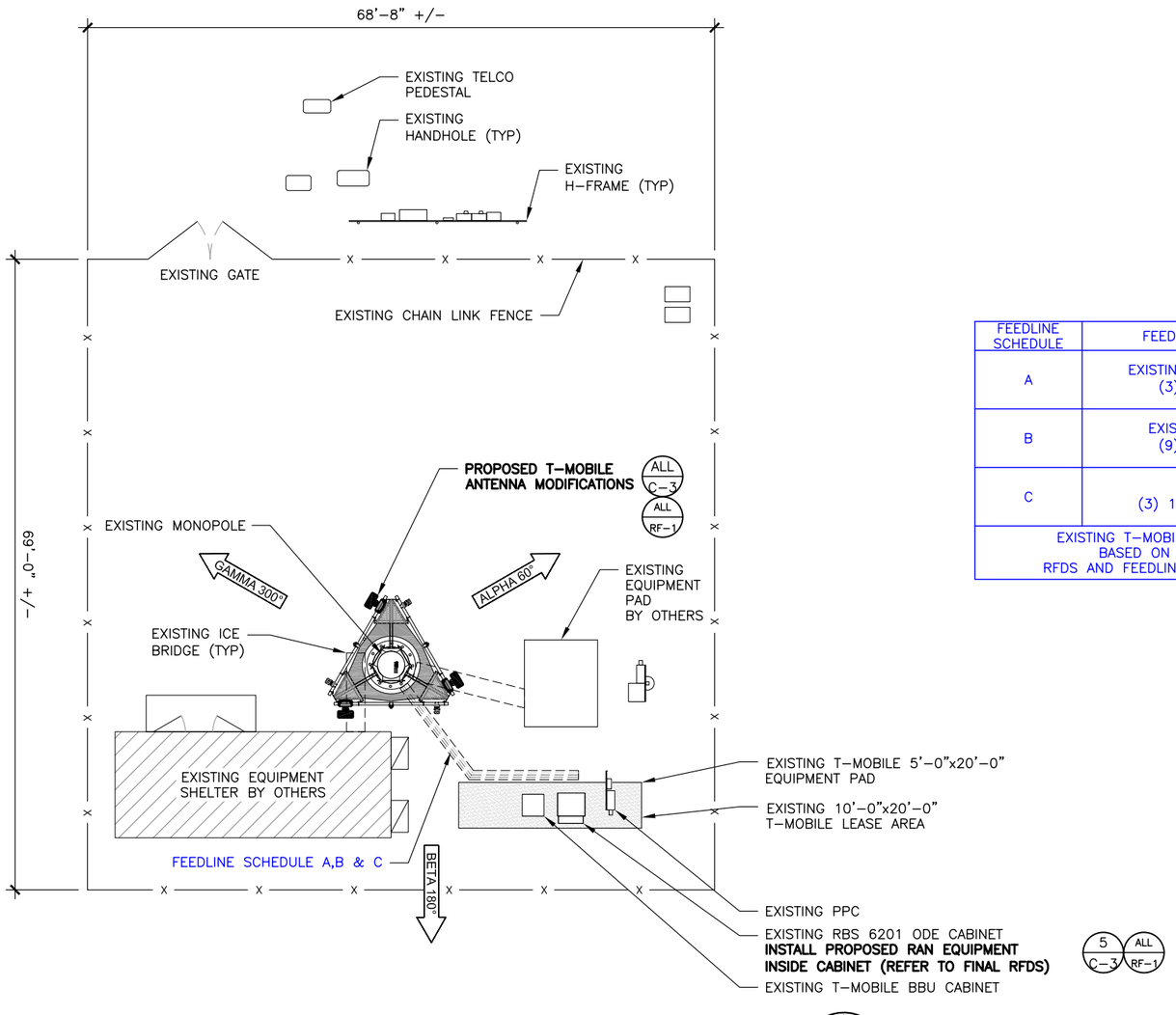
REV	DATE	DRWN	DESCRIPTION
0	6/24/19	STH	FOR REVIEW
1	7/18/19	JJD	FOR REVIEW

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

SHEET NUMBER:	REVISION:
GN-1	1

SPECIAL PRE-CONSTRUCTION WORK NOTE:

GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.



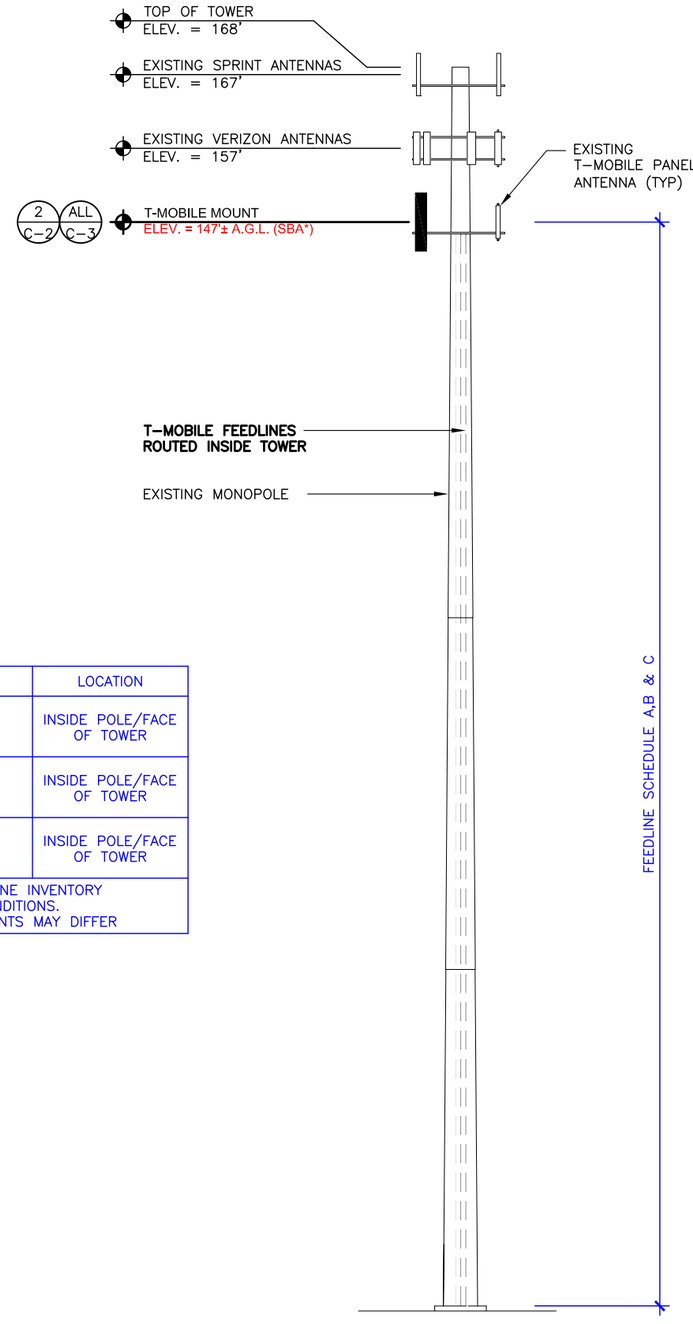
1 OVERALL SITE PLAN

SCALE: 0' 8' 16' 32' 48'

11x17 SCALE: 1/16"=1'-0"
22x34 SCALE: 1/8"=1'-0"

N

FEEDLINE SCHEDULE	FEEDLINE DESCRIPTION	LOCATION
A	EXISTING TO BE REMOVED: (3) 1 5/8" COAX	INSIDE POLE/FACE OF TOWER
B	EXISTING TO REMAIN: (9) 1 5/8" COAX	INSIDE POLE/FACE OF TOWER
C	PROPOSED: (3) 1-5/8" HCS FIBER	INSIDE POLE/FACE OF TOWER
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER		



2 ELEVATION DETAIL

SCALE: N.T.S.

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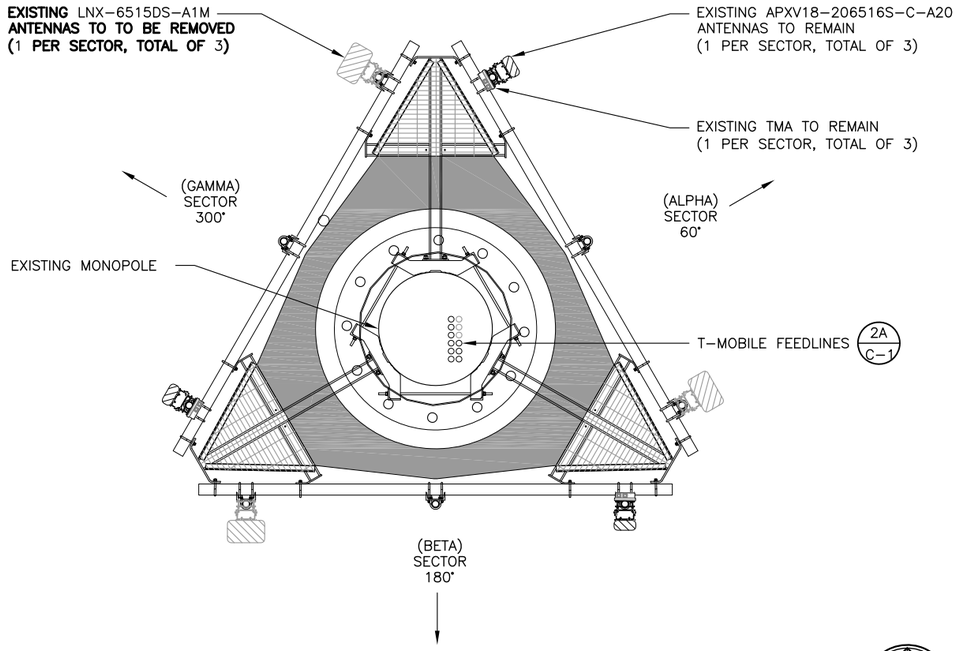
STATE OF CONNECTICUT
31627
LICENSED PROFESSIONAL ENGINEER
7/18/19

SHEET NUMBER:	REVISION:
C-1	1

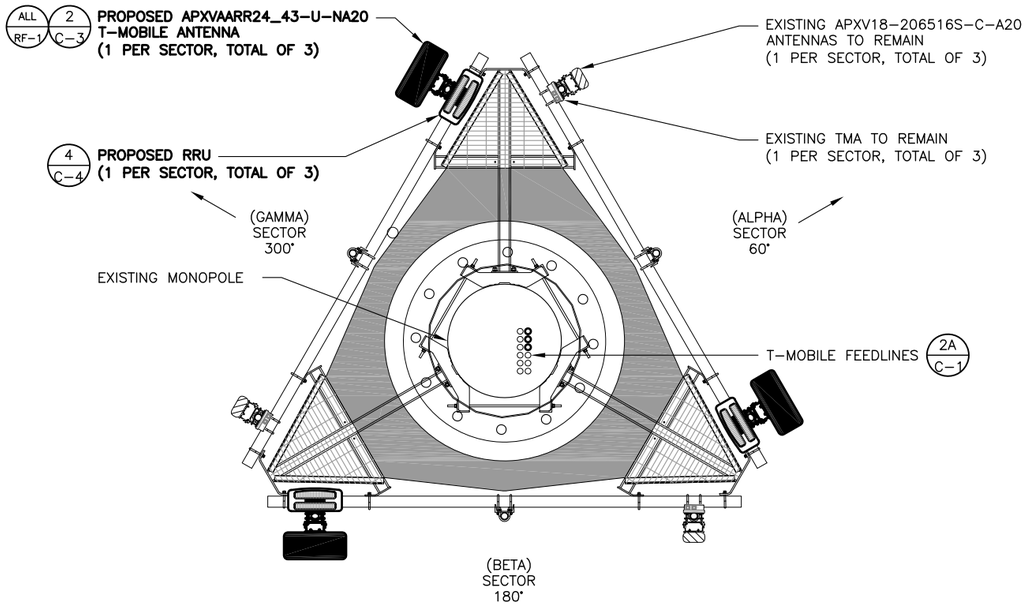


1 EXISTING ANTENNA PLAN

SCALE: 0' 1' 2' 4' 10'

11x17 SCALE: 1/4"=1'-0"
22x34 SCALE: 1/2"=1'-0"

N



2 PROPOSED ANTENNA PLAN

SCALE: 0' 1' 2' 3' 4' 5'

11x17 SCALE: 1/2"=1'-0"
22x34 SCALE: 1"=1'-0"

N

NOTE:
AT TIME OF CONSTRUCTION, CONTRACTOR TO VERIFY AZIMUTHS OF EXISTING ANTENNAS. IF DIFFERENT FROM RFDS, PLEASE NOTIFY THE RF ENGINEER AND CONSTRUCTION MANAGER WITH ACTUAL AZIMUTH TO ENSURE T-MOBILE'S DATABASE IS ACCURATE AND UP-TO-DATE.

SPECIAL PRE-CONSTRUCTION WORK NOTE:

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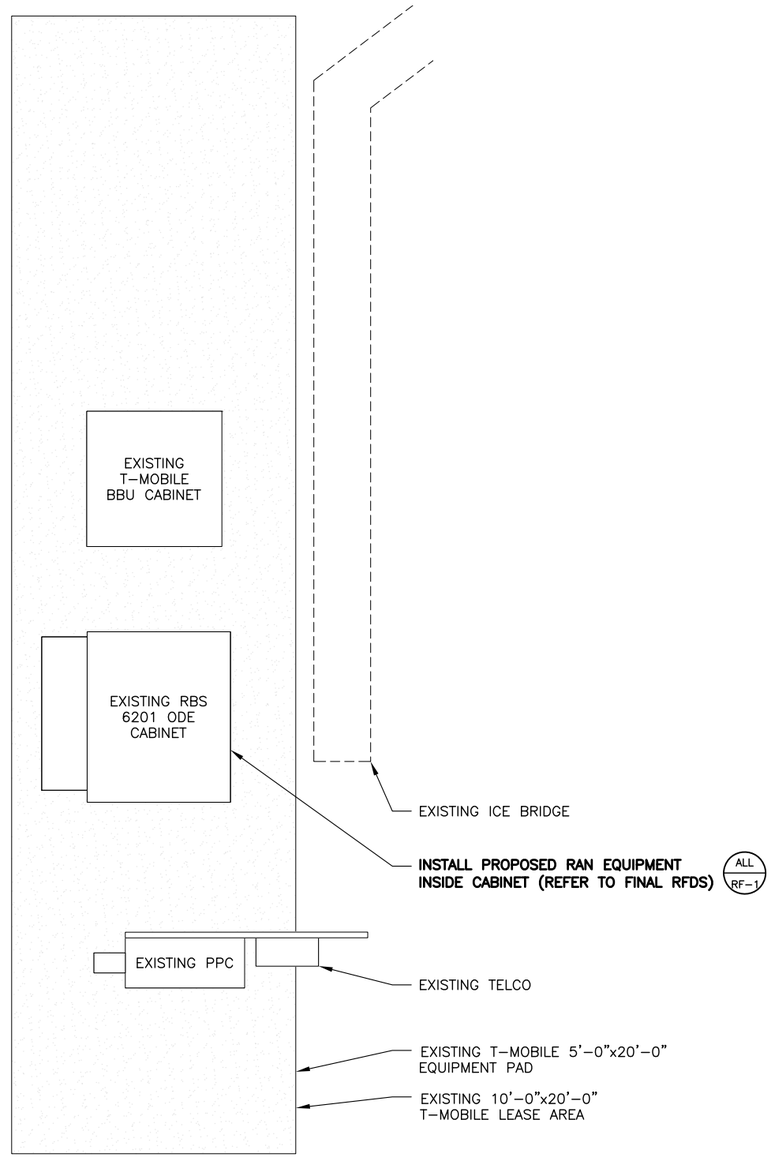

3 EXISTING & PROPOSED EQUIPMENT PLAN

SCALE: 0' 1' 2' 4' 8'

11x17 SCALE: 3/8"=1'-0"
22x34 SCALE: 3/4"=1'-0"

N

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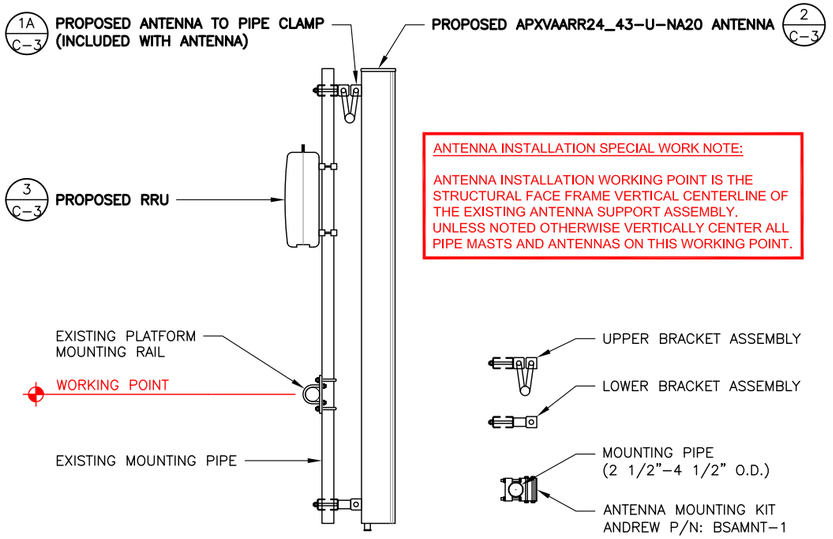
7/18/19

SHEET NUMBER: C-2

REVISION: 1



ANTENNA INSTALLATION SPECIAL WORK NOTE:

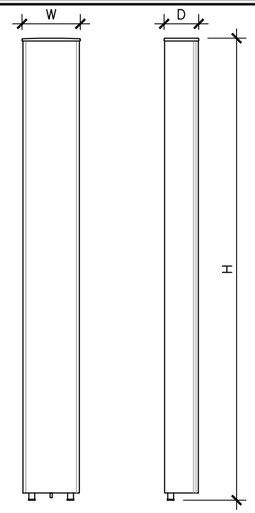
ANTENNA INSTALLATION WORKING POINT IS THE STRUCTURAL FACE FRAME VERTICAL CENTERLINE OF THE EXISTING ANTENNA SUPPORT ASSEMBLY. UNLESS NOTED OTHERWISE VERTICALLY CENTER ALL PIPE MASTS AND ANTENNAS ON THIS WORKING POINT.

1 PROPOSED L7/L6 ANTENNA & RRU MOUNTING DETAIL

SCALE: N.T.S.

1A L7/L6 ANTENNA MOUNTING BRACKET

SCALE: N.T.S.



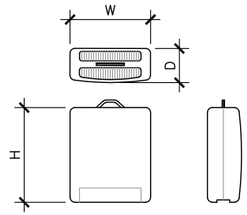
L7/L6 ANTENNA SPECS	
MANUFACTURER	RFS
MODEL #	APXVAARR24_43-U-NA20
WIDTH	24"
DEPTH	8.7"
HEIGHT	95.9"
WEIGHT	128 LBS

2 L7/L6 ANTENNA DETAIL

SCALE: N.T.S.

SPECIAL PRE-CONSTRUCTION WORK NOTE:

GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.



RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4449 B71+B12
WIDTH	13.18"
DEPTH	9.25"
HEIGHT	15"
WEIGHT	74 LBS

3 REMOTE RADIO UNIT (RRU)

SCALE: N.T.S.

FINAL ANTENNA SCHEDULE

SECTOR	TECH	ANTENNA MODEL	AZIMUTH	RAD CENTER	M-TILT	E-TILT	RADIOS	CABLE TYPE	CABLE LENGTH
ALPHA	L19/G19	APXV18-206516S-C-A20	60°	147'	0°	2°	-	(2) 1 5/8" COAX	180'
	L7/L6	**APXVAARR24_43-U-NA20**	**60°**	**147'**	**0°**	**2°/2°**	**(1) 4449 B71+B12**	**(1) 1-5/8" HCS FIBER**	**180'**
	-	-	-	-	-	-	-	-	-
BETA	L19/G19	APXV18-206516S-C-A20	180°	147'	0°	2°	-	(2) 1 5/8" COAX	180'
	L7/L6	**APXVAARR24_43-U-NA20**	**180°**	**147'**	**0°**	**2°/2°**	**(1) 4449 B71+B12**	**(1) 1-5/8" HCS FIBER**	**180'**
	-	-	-	-	-	-	-	-	-
GAMMA	L19/G19	APXV18-206516S-C-A20	300°	147'	0°	2°	-	(2) 1 5/8" COAX	180'
	L7/L6	**APXVAARR24_43-U-NA20**	**300°**	**147'**	**0°**	**2°/2°**	**(1) 4449 B71+B12**	**(1) 1-5/8" HCS FIBER**	**180'**
	-	-	-	-	-	-	-	-	-

4 FINAL ANTENNA SCHEDULE

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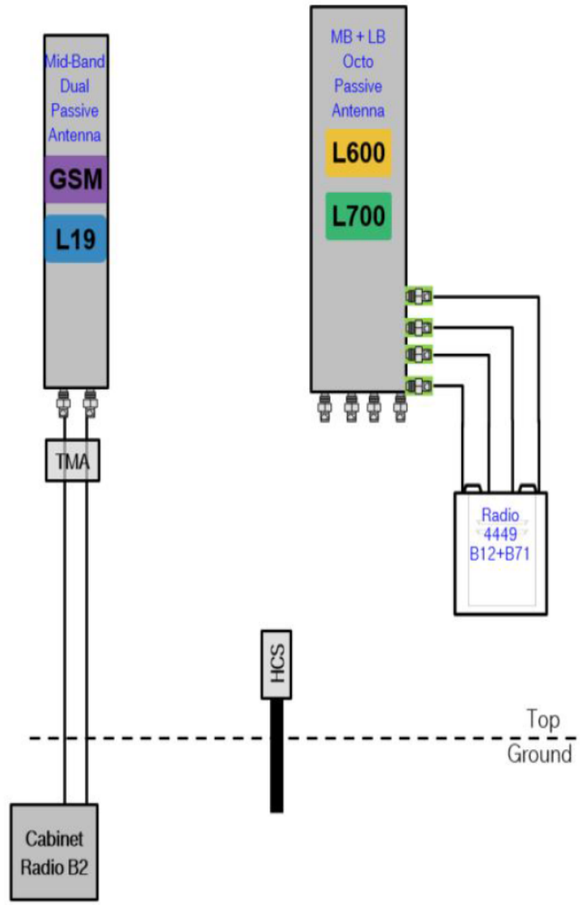

RF DESIGN GENERAL NOTE:

1. RF DESIGN BASED ON RFDS DATED 4/26/19 , GENERAL CONTRACTOR/TOWER CREW SHALL VERIFY THAT THE LATEST RFDS AND RAN WIRING DIAGRAM IS USED FOR EQUIPMENT INSTALLATION.
2. PRIOR TO INSTALLATION OF TOWER TOP EQUIPMENT, GENERAL CONTRACTOR/TOWER CREW SHALL VERIFY AZIMUTHS OF EXISTING ANTENNAS. DISCREPANCIES AND ACTUAL AZIMUTHS SHALL BE REPORTED IMMEDIATELY TO RF ENGINEER AND T-MOBILE CONSTRUCTION MANAGER.

RFDS FOOTNOTES:

1. INFORMATION IN BOLD RED TEXT IS PROVIDED BY A&E AND HIGHLIGHTS IMPORTANT DISCREPANCIES BETWEEN RFDS AND ACTUAL FIELD MEASUREMENTS OR SBA-PROVIDED RECORD INFORMATION.

* SBA-PROVIDED ANTENNA RAD AGL BASED ON COLOCATION APPLICATION AND STRUCTURAL ANALYSIS AND SHALL SUPERCEDE ANY CONFLICTING RFDS ANTENNA RAD AGL.

** HYBRID TRUNK FEEDLINE LENGTHS AS PROVIDED BY A&E BASED ON SCALED DIMENSIONS FROM RBS TO ANTENNA/RRU CONNECTIONS PLUS 20' FOR (2) 10' COILS EACH AT TOP AND BOTTOM TERMINATIONS. T-MOBILE CONSTRUCTION MANAGER SHALL CONFIRM ALL EQUIPMENT SCHEDULES, PART NUMBERS AND FEEDLINE/JUMPER LENGTHS BEFORE PREPARING A BILL OF MATERIALS.

5/8/2019 CT11525A_L600_2.1_draft_2019-05-08

RAN Template:	A&L Template:	Power System Template:
67D04G	67D04G_1DP+1OP	Custom

CT11525A_L600_2.1_draft

Section 1 - Site Information

Site ID: CT11525A	Site Name: CT525/SBA Pomfret #2	Latitude: 41.8903110000
Status: Draft	Site Class: Monopole	Long/lude: -71.9550840000
Version: 2.1	Site Type: Structure Non Building	Address: 398 Pomfret Street
Project Type: L600	Plan Year:	City, State: Pomfret, CT
Approved: Not Approved	Market: CONNECTICUT	Region: NORTHEAST
Approved By: Not Approved	Vendor: Ericsson	
Last Modified: 4/26/2019 6:3:01 PM	Landlord: <undefined>	
Last Modified By: GSM1900\AMuriti9		

RAN Template:	AL Template:			
67D04G	67D04G_1DP+1OP			
Sector Count: 3	Antenna Count: 6	Coax Line Count: 6	TMA Count: 3	RRU Count: 3

Section 2 - Existing Template Images

----- This section is intentionally blank. -----

Existing RAN Equipment

Template: 704G

Enclosure	1
Enclosure Type	RBS 6201 ODE
Baseband	DUG20 DUS41
Radio	RUS01 B2 (x6) RUS01 B12 (x6)

Proposed RAN Equipment

Template: 67D04G

Enclosure	1
Enclosure Type	RBS 6201 ODE
Baseband	DUG20 G1900; BB 6630 L1900 L700 L600; BB 6630 N600 (DARK)
Hybrid Cable System	Ericsson 6x12 HCS "Select Length & AWG" (x3)
Radio	RUS01 B2 (x3) G1900; RUS01 B2 (x3) L1900

RAN Scope of Work:

*** RBS6201 ODE Cabinet ***

Replace (1) DUS41 with BB6630 for LTE.
Add (1) BB6630 for future 5G.

Remove all (6) RUS01 B12 from cabinet.

Add (3) 6X12 HCS
Existing: (12) Coaxial Lines
Remove (3) Coaxial Lines

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro				
Antenna	1	2			
Antenna Model	RFS - APXV18-206516S-C-A20 (Dual)	RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	60	60			
M. Tilt	0	0			
Height	147	147			
Ports	P1	P2	P3	P4	P5
Active Tech.	L1900 G1900	L700 L600	L700 L600		
Dark Tech.					
Restricted Tech.					
Decomm. Tech.					
E. Tilt	2	2	2		
Cables	1-5/8" Coax - 180 ft. (x2)	Coax Jumper (x2)	Coax Jumper (x2)		
TMAs	Generic Twin Style 1A - PCS (AtAntenna)				
Diplexers / Combiners					
Radio		Radio 4449 B71+B12 (At Antenna)	SHARED Radio 4449 B71+B12 (At Antenna)		
Sector Equipment					

Unconnected Equipment:

Scope of Work:

Replace LB Dual in Position 2 with (1) LB/MB Octo.
Add (1) Radio 4449 B71+B12 for L600 and L700 to Position 2.

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

Sector 2 (Proposed) view from behind

Coverage Type	A - Outdoor Macro				
Antenna	1	2			
Antenna Model	RFS - APXV18-206516S-C-A20 (Dual)	RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	180	180			
M. Tilt	0	0			
Height	147	147			
Ports	P1	P2	P3	P4	P5
Active Tech.	L1900 G1900	L700 L600	L700 L600		
Dark Tech.					
Restricted Tech.					
Decomm. Tech.					
E. Tilt	2	2	2		
Cables	1-5/8" Coax - 180 ft. (x2)	Coax Jumper (x2)	Coax Jumper (x2)		
TMAs	Generic Twin Style 1A - PCS (AtAntenna)				
Diplexers / Combiners					
Radio		Radio 4449 B71+B12 (At Antenna)	SHARED Radio 4449 B71+B12 (At Antenna)		
Sector Equipment					

Unconnected Equipment:

Scope of Work:

Replace LB Dual in Position 2 with (1) LB/MB Octo.
Add (1) Radio 4449 B71+B12 for L600 and L700 to Position 2.

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

Sector 3 (Proposed) view from behind

Coverage Type	A - Outdoor Macro				
Antenna	1	2			
Antenna Model	RFS - APXV18-206516S-C-A20 (Dual)	RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	300	300			
M. Tilt	0	0			
Height	147	147			
Ports	P1	P2	P3	P4	P5
Active Tech.	L1900 G1900	L700 L600	L700 L600		
Dark Tech.					
Restricted Tech.					
Decomm. Tech.					
E. Tilt	2	2	2		
Cables	1-5/8" Coax - 180 ft. (x2)	Coax Jumper (x2)	Coax Jumper (x2)		
TMAs	Generic Twin Style 1A - PCS (AtAntenna)				
Diplexers / Combiners					
Radio		Radio 4449 B71+B12 (At Antenna)	SHARED Radio 4449 B71+B12 (At Antenna)		
Sector Equipment					

Unconnected Equipment:

Scope of Work:

Replace LB Dual in Position 2 with (1) LB/MB Octo.
Add (1) Radio 4449 B71+B12 for L600 and L700 to Position 2.

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

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T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581

CT11525A

CT525/SBA POMFRET #2

398 POMFRET STREET
POMFRET, CT 06258

PROJECT NO:	136016.002.01
CHECKED BY:	FWP

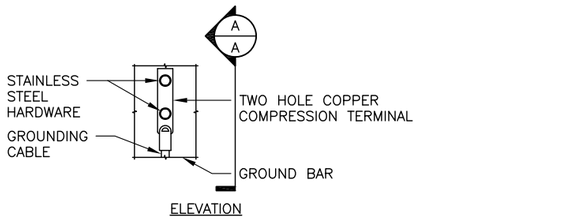
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	6/24/19	STH	FOR REVIEW
1	7/18/19	JJD	FOR REVIEW

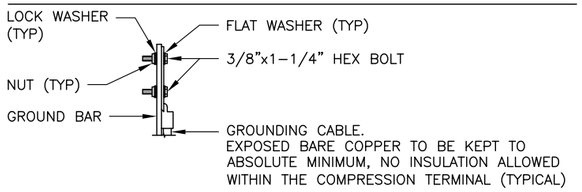
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT 31627 LICENSED PROFESSIONAL ENGINEER
7/18/19

SHEET NUMBER: RF-1
REVISION: 1



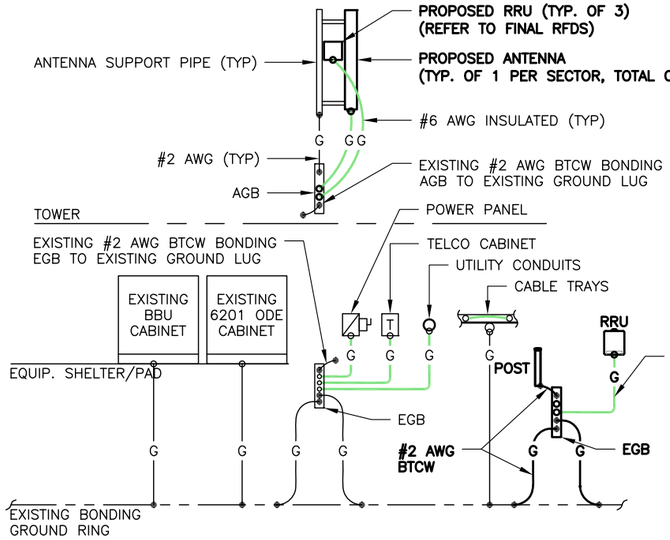
ELEVATION



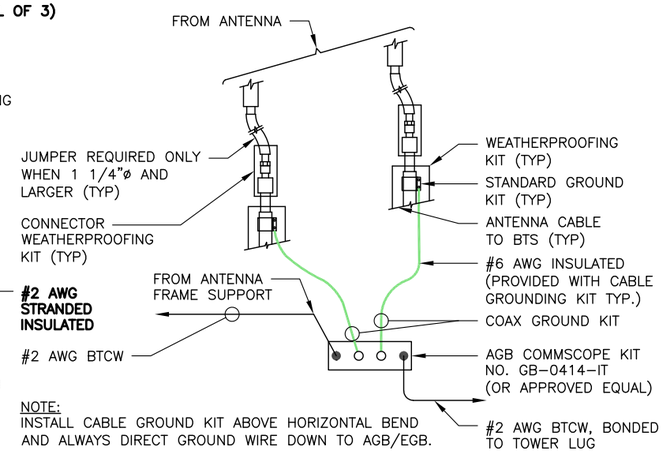
SECTION "A-A"

NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

1 TYPICAL GROUND BAR CONNECTION DETAIL
SCALE: N.T.S.

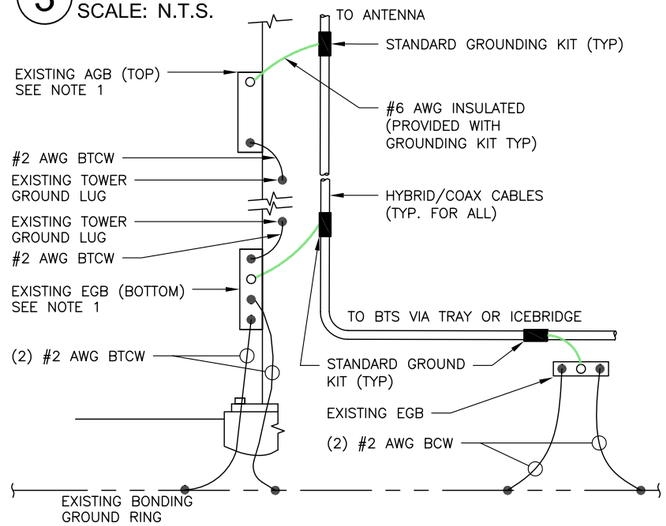


2 TYPICAL GROUNDING RISER DIAGRAM
SCALE: N.T.S.



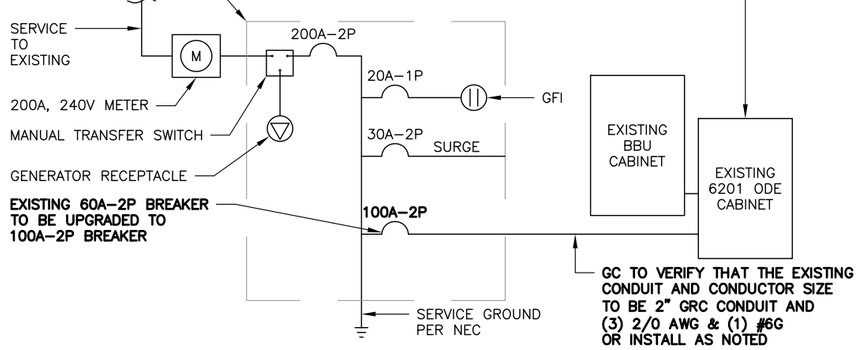
NOTE:
INSTALL CABLE GROUND KIT ABOVE HORIZONTAL BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO AGB/EGB.

3 TOWER TOP CABLE GROUNDING DETAIL
SCALE: N.T.S.



NOTE:
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

5 TOWER BOTTOM CABLE GROUNDING DETAIL
SCALE: N.T.S.



4 ONE-LINE POWER DIAGRAM
SCALE: N.T.S.

ELECTRICAL LEGEND

A	AMPERE
BTCW	BARE TINNED (SOLID) COPPER WIRE
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
KWH	KILOWATT – HOUR
PPC	POWER PROTECTION CABINET
V	VOLT
	5/8"x8' COPPER CLAD STAINLESS STEEL GROUND ROD
	GROUND
	EXOTHERMIC CONNECTION (CAD WELD) MECHANICAL CONNECTION
AGB/EGB	ANTENNA GROUND BAR/EQUIPMENT GROUND BAR
MGB	MASTER GROUND BAR
G	GROUND COPPER WIRE, SIZED AS NOTED
	EXPOSED WIRING, SIZE AS NOTED
	INSULATED WIRING, SIZE AS NOTED
	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL

ELECTRICAL & GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL ROOM AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A-1. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
11. GROUNDING SHALL COMPLY WITH NEC ART. 250.
12. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
13. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
14. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
15. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
16. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS UNIT).
17. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
18. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
19. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
20. BOND ANTENNA EGB'S AND MGB TO WATER MAIN.
21. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
22. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
23. VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.

B+T GRP
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CT11525A

CT525/SBA POMFRET #2

398 POMFRET STREET
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B&T ENGINEERING, INC.
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Expires 2/10/20

STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
7/18/19

SHEET NUMBER:	REVISION:
E-1	1

EXHIBIT 7

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 168 ft SUMMIT Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT02217-S

Customer Site Name: Pomfret School

Carrier Name: T-Mobile (App#: 116895, v1)

Carrier Site ID / Name: CT11525A / Pomfret School

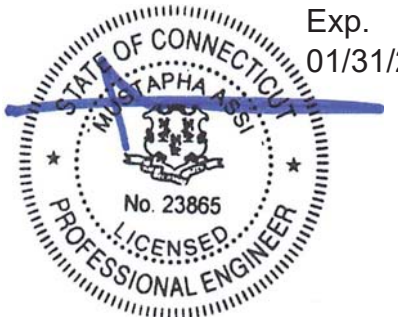
Site Location: 398 Pomfret Street

Pomfret, Connecticut

Windham County

Latitude: 41.890094

Longitude: -71.955008



Exp. 01/31/2020

07/05/2019

Analysis Result:

Max Structural Usage: 70.9% [Pass]

Max Foundation Usage: 61.5% [Pass]

Additional Usage Caused by Mount Modification: N/A

Report Prepared By: Walter Velez

Introduction

The purpose of this report is to summarize the analysis results on the 168 ft SUMMIT Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Original shaft section data prepared by Summit, LLC & Paul J. Ford and Company. Dated 11-23-1999. Job No 29299-802. Design No 5762. Previous structural report prepared by Tower Engineering Solutions. Dated 05-21-2018. TES Project No 53346.
Foundation Drawing	Foundation mapping report prepared by FDH Engineering, Inc. Dated 08-21-2012. Project No 1201570EN1.
Geotechnical Report	Geotechnical report prepared by FDH Engineering, Inc. Dated 09-12-2012. Project No 1201570EG1.
Modification Drawings	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the ANSI/TIA/EIA 222-G**.** In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} =130.0 mph (3-Sec. Gust)
(Based on IBC 2015)	Nominal Design Wind Speed V_{asd} = 101.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G, 2015 IBC & 2018 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.172, S_1 = 0.063

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	167.0	3	RFS APXVTM14-C-I20 - Panel	Low Profile Platform w/ Reinforcement Kit (Site Pro PRK-1245L), V-Brace Kit (Site Pro PRK-SFS-H-L), (3) Pipe2.0STD x 15' Horizontal Rail, (3) Pipe2.0STD x 4' Long Corner Braces, & (6) Pipe2.0STD Mount Pipes	(4) 1-1/4" Fiber	Sprint Nextel
2		3	Commscope NNVV-65B-R4 - Panel			
3		3	ALU 1900 Mhz RRU's			
4		6	ALU 800 Mhz RRU's			
5		3	ALU TD-RRH8x20-25 RRU's			
6	157.0	3	Commscope LNX-6514DS-AIM - Panel	Low Profile Platform	(11) 1 5/8" Coax; (1) 1 5/8" Fiber	Verizon
7		6	Commscope HBXX-6517DS-A2M - Panel			
8		3	Amphenol QUAD656COOOOx - Panel			
9		3	Alcatel Lucent RRH2x60-AWS RRH's			
10		3	Alcatel Lucent RRH2x60-700 RRH's			
11		1	Rfs DB-T1-6Z-8AB-0Z ODU			
12	147.0	3	RFS APXV18-206516S-C-A20 - Panel	Low Profile Platform w/ Reinforcement Kit (Site Pro PRK-1245)	(12) 1 5/8" Coax	T-Mobile
13		3	Commscope LNX-6515DS-VTM - Panel			
14		3	Allen Telecom FE15501P77/75 TMA's			
15		3	Ericsson KRY 112 144/1 TMA's			
16		3	Kathrein 782 11056 Bias Ts			

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
17	147.0	3	RFS APXV18-206516S-C-A20 - Panel	Low Profile Platform w/ Reinforcement Kit (Site Pro PRK-1245)	(9) 1 5/8" Coax; (3) 1 5/8" Fiber	T-Mobile
18		3	RFS APXVAARR24_43-U-NA20 - Panel			
19		3	Ericsson KRY 112 489/2 TMA's			
20		3	Allen Telecom FE15501P77/75 TMA's			
21		3	Ericsson Radio 4449 B71+B12 RRU's			
22		3	Kathrein 782 11056 Bias Ts			

All transmission lines are considered running inside of the pole shafts. Please see the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**70.9%**	**65.1%**	**61.7%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Original Design Reactions	4750.0	37.5	38.0
Analysis Reactions	4446.8	36.4	51.3
Factored Reactions*	6412.5	50.6	51.3

* Per section 15.5.1 of the TIA-222-G standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.3736 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the ANSI/TIA-222-G standards, the 2015 IBC and the 2018 Connecticut State Building Code under the design basic wind speed specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

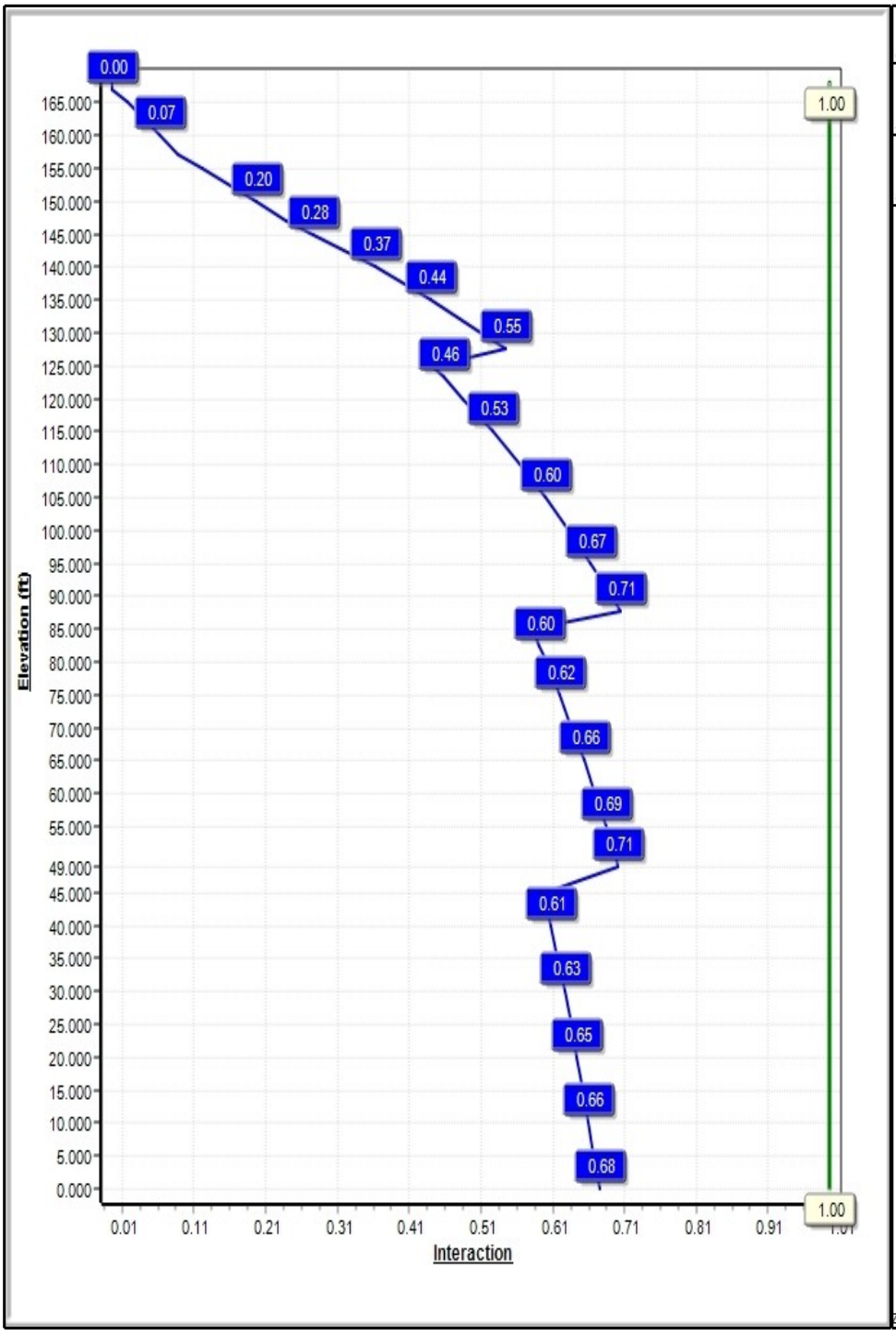
Usage Diagram - Max Ratio 70.90% at 87.8ft

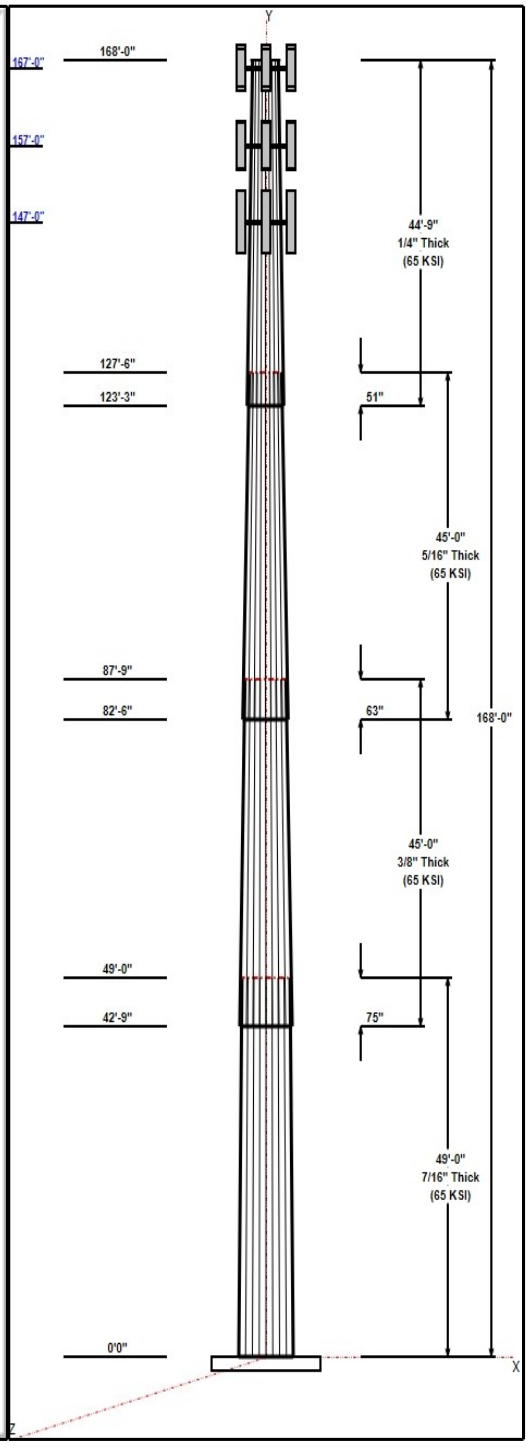
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School	**Exposure:**	C	
Height:	168.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

Tower Engineering Solutions

Dead Load Factor:	1.20	**Iterations:**	25
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 101 mph Wind





Structure: CT02217-S-SBA

Type: Tapered
Site Name: Pomfret School
Height: 168.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.22003

7/5/2019

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.00	48.31	59.09	0.438		0.22003	65
2	45.00	40.53	50.43	0.375	Slip	0.22003	65
3	45.00	32.41	42.31	0.313	Slip	0.22003	65
4	44.75	24.00	33.85	0.250	Slip	0.22003	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
168.00	170.50	1	Lightning Rod	---
167.00	167.00	3	RFS APXVTM14-C-I20	Sprint Nextel
167.00	167.00	3	Commscope	Sprint Nextel
167.00	167.00	3	ALU 1900 Mhz RRU's	Sprint Nextel
167.00	167.00	6	ALU 800 Mhz RRU's	Sprint Nextel
167.00	167.00	3	ALU TD-RRH8x20-25	Sprint Nextel
167.00	167.00	1	Reinforcement Kit (Site	Sprint Nextel
167.00	167.00	1	Low Profile Platform	Sprint Nextel
167.00	167.00	1	V-Brace Kit (Site Pro	Sprint Nextel
167.00	167.00	1	Pipe2.0STD x 15'	Sprint Nextel
167.00	167.00	6	Pipe2.0STD Mount Pipes	Sprint Nextel
157.00	157.00	3	Amphenol	Verizon
157.00	157.00	6	Commscope	Verizon
157.00	157.00	3	Commscope	Verizon
157.00	157.00	3	Alcatel Lucent	Verizon
157.00	157.00	3	Alcatel Lucent	Verizon
157.00	157.00	1	Rfs DB-T1-6Z-8AB-0Z	Verizon
157.00	157.00	1	Low Profile Platform	Verizon
147.00	147.00	3	RFS	T-Mobile
147.00	147.00	3	RFS	T-Mobile
147.00	147.00	3	Ericsson KRY 112 489/2	T-Mobile
147.00	147.00	3	Allen Telecom	T-Mobile
147.00	147.00	3	Ericsson Radio 4449	T-Mobile
147.00	147.00	3	Kathrein 782 11056 Bias	T-Mobile
147.00	147.00	1	Low Profile Platform	T-Mobile
147.00	147.00	1	Reinforcement Kit (Site	T-Mobile

Linear Appurtenances

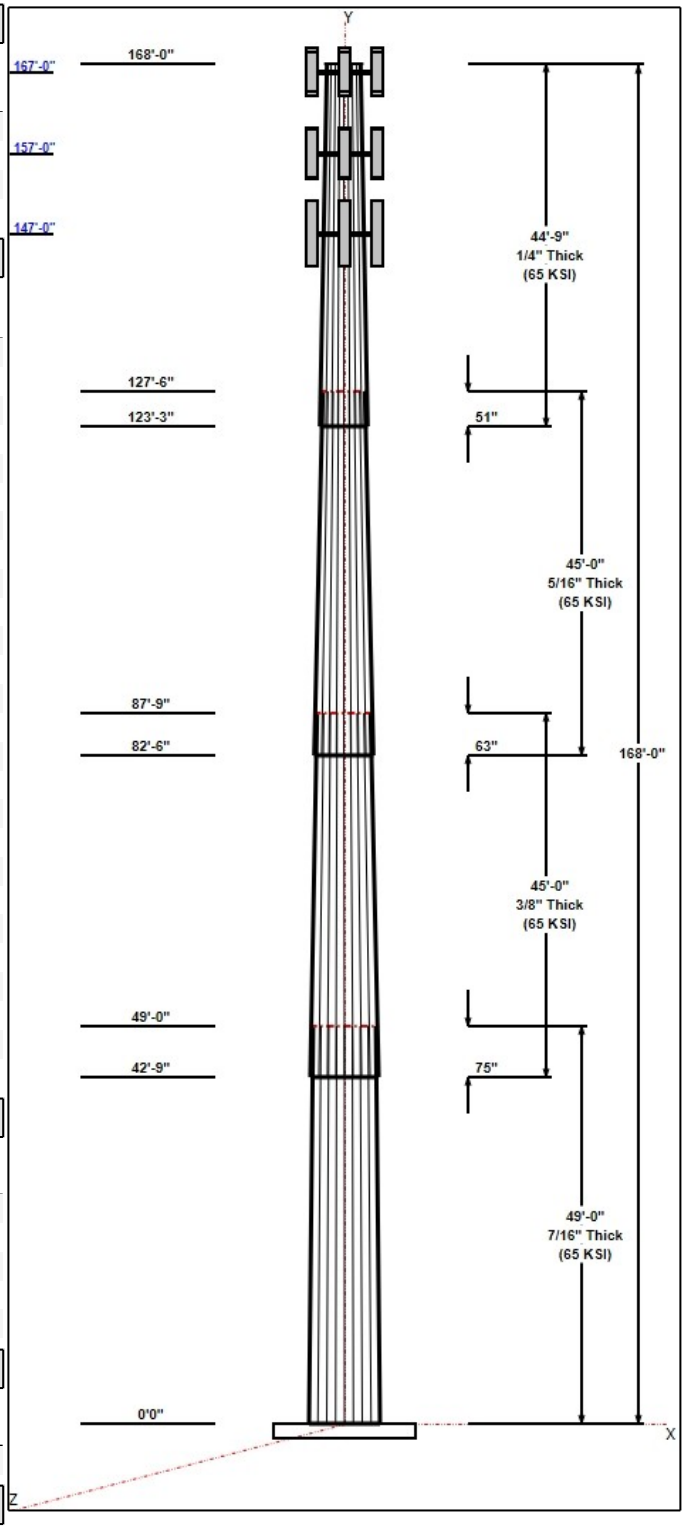
Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
3.00	167.00	Inside	1-1/4" Fiber	Sprint Nextel
3.00	157.00	Inside	1 5/8" Coax	Verizon
3.00	157.00	Inside	1 5/8" Fiber	Verizon
3.00	147.00	Inside	1 5/8" Coax	T-Mobile
3.00	147.00	Inside	1 5/8" Fiber	T-Mobile

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.0000	65.0	50.0	Clipped



Reactions

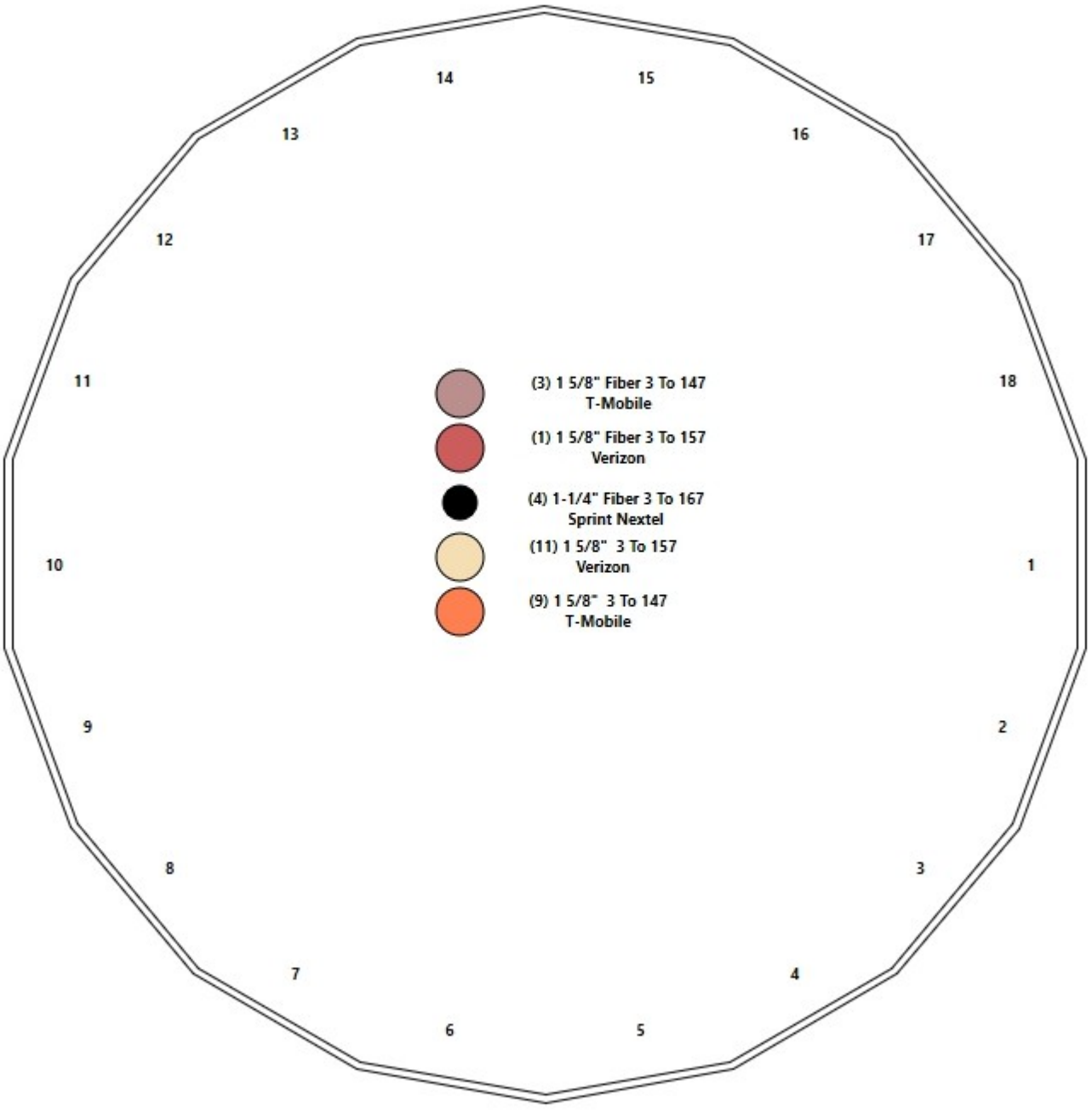
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4446.8	36.4	51.3
0.9D + 1.6W 101 mph Wind	4397.5	36.4	38.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1199.9	9.9	76.5
1.2D + 1.0E	308.8	2.3	51.4
0.9D + 1.0E	305.1	2.3	38.5
1.0D + 1.0W 60 mph Wind	975.2	8.0	42.8

Structure: CT02217-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Pomfret School
Height: 168.00 (ft)

7/5/2019

Tower Engineering Solutions



Shaft Properties

Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	49.000	0.4375	65		0.00	12,331
2	18	45.000	0.3750	65	Slip	75.00	8,221
3	18	45.000	0.3125	65	Slip	63.00	5,627
4	18	44.750	0.2500	65	Slip	51.00	3,464
					Total Shaft Weight:		**29,644**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	59.09	0.00	81.44	35398.27	22.40	135.06	48.31	49.00	66.47	19246.0	18.06	110.4	0.220030
2	50.43	42.75	59.58	18863.19	22.30	134.49	40.53	87.75	47.80	9738.05	17.65	108.0	0.220030
3	42.31	82.50	41.66	9284.18	22.46	135.40	32.41	127.50	31.84	4144.35	16.88	103.7	0.220030
4	33.85	123.2	26.66	3801.54	22.46	135.39	24.00	168.00	18.84	1343.00	15.52	96.00	0.220030

Load Summary

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	168.00	Lightning Rod	1	35.00	1.05	1.00	66.77	3.450	1.00	0.00	2.50
2	167.00	RFS APXVTM14-C-I20	3	56.00	6.34	0.78	218.50	7.466	0.78	0.00	0.00
3	167.00	Commscope NNVV-65B-R4	3	84.70	12.27	0.73	400.56	13.742	0.73	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	60.00	2.38	0.67	144.34	3.482	0.67	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	53.00	2.13	0.67	127.76	3.119	0.67	0.00	0.00
6	167.00	ALU TD-RRH8x20-25 RRU's	3	70.00	4.05	0.67	181.91	4.873	0.67	0.00	0.00
7	167.00	Reinforcement Kit (Site Pro	1	464.91	9.50	1.00	792.96	19.555	1.00	0.00	0.00
8	167.00	Low Profile Platform	1	1500.00	22.00	1.00	2823.04	39.852	1.00	0.00	0.00
9	167.00	V-Brace Kit (Site Pro PRK-SFS-H-L)	1	230.00	6.70	1.00	554.59	13.791	1.00	0.00	0.00
10	167.00	Pipe2.0STD x 15' Horizontal Rail	1	261.72	6.75	1.00	575.67	13.418	1.00	0.00	0.00
11	167.00	Pipe2.0STD Mount Pipes	6	40.00	1.43	0.80	121.15	4.710	0.80	0.00	0.00
12	157.00	Amphenol QUAD656COOOOx	3	54.00	13.24	0.76	300.49	17.836	0.76	0.00	0.00
13	157.00	Commscope HBXX-6517DS-A2M	6	40.80	8.53	0.80	218.28	11.455	0.80	0.00	0.00
14	157.00	Commscope LNX-6514DS-AIM	3	38.80	8.17	0.83	215.91	11.006	0.83	0.00	0.00
15	157.00	Alcatel Lucent RRH2x60-AWS	3	60.00	3.50	0.67	129.89	5.174	0.68	0.00	0.00
16	157.00	Alcatel Lucent RRH2x60-700 RRH's	3	60.00	3.50	0.67	147.69	4.293	0.68	0.00	0.00
17	157.00	Rfs DB-T1-6Z-8AB-0Z ODU	1	44.00	4.80	0.67	188.50	5.678	0.67	0.00	0.00
18	157.00	Low Profile Platform	1	1500.00	22.00	1.00	2814.90	39.742	1.00	0.00	0.00
19	147.00	RFS APXV18-206516S-C-A20	3	18.70	3.62	0.78	88.63	5.479	0.78	0.00	0.00
20	147.00	RFS APXVAARR24_43-U-NA20	3	128.00	20.24	0.72	557.52	22.136	0.72	0.00	0.00
21	147.00	Ericsson KRY 112 489/2 TMA's	3	15.40	0.56	0.60	40.22	0.908	0.60	0.00	0.00
22	147.00	Allen Telecom FE15501P77/75	3	17.50	0.54	0.60	45.59	0.890	0.60	0.00	0.00
23	147.00	Ericsson Radio 4449 B71+B12	3	74.00	1.63	0.67	141.11	2.160	0.67	0.00	0.00
24	147.00	Kathrein 782 11056 Bias Ts	3	1.80	0.15	0.60	11.05	0.353	0.60	0.00	0.00
25	147.00	Low Profile Platform	1	1500.00	22.00	1.00	2806.27	39.626	1.00	0.00	0.00
26	147.00	Reinforcement Kit (Site Pro	1	464.91	9.50	1.00	788.80	19.428	1.00	0.00	0.00
		Totals:	**69**	**9,020.04**			**22,084.82**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
3.00	167.00	(4) 1-1/4" Fiber	0.00	Inside
3.00	157.00	(11) 1 5/8" Coax	0.00	Inside
3.00	157.00	(1) 1 5/8" Fiber	0.00	Inside
3.00	147.00	(9) 1 5/8" Coax	0.00	Inside
3.00	147.00	(3) 1 5/8" Fiber	0.00	Inside

Shaft Section Properties

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	59.090	81.443	35398.3	22.40	135.06	75.0	1179.	0.0
5.00		0.4375	57.990	79.916	33443.5	21.96	132.55	75.6	1135.	1372.7
10.00		0.4375	56.890	78.388	31562.0	21.52	130.03	76.1	1092.	1346.7
15.00		0.4375	55.790	76.860	29752.5	21.07	127.52	76.6	1050.	1320.7
20.00		0.4375	54.689	75.333	28013.5	20.63	125.00	77.1	1008.	1294.7
25.00		0.4375	53.589	73.805	26343.6	20.19	122.49	77.7	968.2	1268.7
30.00		0.4375	52.489	72.278	24741.4	19.74	119.98	78.2	928.4	1242.7
35.00		0.4375	51.389	70.750	23205.6	19.30	117.46	78.7	889.4	1216.7
40.00		0.4375	50.289	69.222	21734.6	18.86	114.95	79.2	851.3	1190.7
42.75	Bot - Section 2	0.4375	49.684	68.382	20952.8	18.61	113.56	79.5	830.6	643.8
45.00		0.4375	49.189	67.695	20327.2	18.41	112.43	79.7	813.9	974.8
49.00	Top - Section 1	0.3750	49.059	57.943	17350.9	21.66	130.82	0.0	0.0	1708.9
50.00		0.3750	48.839	57.682	17116.7	21.55	130.24	76.0	690.3	196.7
55.00		0.3750	47.738	56.372	15977.3	21.04	127.30	76.7	659.2	970.2
60.00		0.3750	46.638	55.063	14889.6	20.52	124.37	77.3	628.8	948.0
65.00		0.3750	45.538	53.753	13852.4	20.00	121.43	77.9	599.1	925.7
70.00		0.3750	44.438	52.444	12864.6	19.48	118.50	78.5	570.2	903.4
75.00		0.3750	43.338	51.135	11924.8	18.97	115.57	79.1	542.0	881.1
80.00		0.3750	42.238	49.825	11032.0	18.45	112.63	79.7	514.4	858.9
82.50	Bot - Section 3	0.3750	41.688	49.170	10602.8	18.19	111.17	80.0	501.0	421.1
85.00		0.3750	41.137	48.516	10184.9	17.93	109.70	80.3	487.6	767.6
87.75	Top - Section 2	0.3125	41.157	40.512	8539.0	21.81	131.70	0.0	0.0	832.5
90.00		0.3125	40.662	40.021	8232.3	21.53	130.12	76.1	398.8	308.3
95.00		0.3125	39.562	38.929	7577.1	20.91	126.60	76.8	377.2	671.6
100.00		0.3125	38.462	37.838	6957.6	20.29	123.08	77.5	356.3	653.1
105.00		0.3125	37.362	36.747	6372.9	19.67	119.56	78.3	336.0	634.5
110.00		0.3125	36.262	35.656	5821.9	19.05	116.04	79.0	316.2	615.9
115.00		0.3125	35.162	34.565	5303.6	18.43	112.52	79.7	297.1	597.4
120.00		0.3125	34.061	33.474	4817.0	17.81	109.00	80.5	278.5	578.8
123.25	Bot - Section 4	0.3125	33.346	32.764	4517.2	17.40	106.71	80.9	266.8	366.3
125.00		0.3125	32.961	32.382	4361.1	17.19	105.48	81.2	260.6	351.8
127.50	Top - Section 3	0.2500	32.911	25.916	3492.9	21.80	131.64	0.0	0.0	495.5
130.00		0.2500	32.361	25.479	3319.3	21.41	129.44	76.2	202.0	218.6
135.00		0.2500	31.261	24.606	2989.7	20.64	125.04	77.1	188.4	426.1
140.00		0.2500	30.161	23.733	2682.7	19.86	120.64	78.0	175.2	411.2
145.00		0.2500	29.061	22.860	2397.4	19.09	116.24	79.0	162.5	396.4
147.00		0.2500	28.621	22.511	2289.2	18.78	114.48	79.3	157.5	154.4
150.00		0.2500	27.961	21.988	2133.1	18.31	111.84	79.9	150.3	227.1
155.00		0.2500	26.860	21.115	1889.0	17.53	107.44	80.8	138.5	366.7
157.00		0.2500	26.420	20.765	1796.9	17.22	105.68	81.1	134.0	142.5
160.00		0.2500	25.760	20.242	1664.3	16.76	103.04	81.7	127.3	209.3
165.00		0.2500	24.660	19.369	1458.1	15.98	98.64	82.5	116.5	337.0
167.00		0.2500	24.220	19.020	1380.7	15.67	96.88	82.5	112.3	130.6
168.00		0.2500	24.000	18.845	1343.0	15.52	96.00	82.5	110.2	64.4
										29643.8

Wind Loading - Shaft

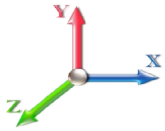
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	21.088	23.20	465.60	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	456.93	0.650	0.000	5.00	24.768	16.10	597.5	0.0	1647.2
10.00		1.00	0.85	21.088	23.20	448.26	0.650	0.000	5.00	24.302	15.80	586.3	0.0	1616.0
15.00		1.00	0.85	21.088	23.20	439.59	0.650	0.000	5.00	23.837	15.49	575.0	0.0	1584.8
20.00		1.00	0.90	22.375	24.61	443.88	0.650	0.000	5.00	23.372	15.19	598.2	0.0	1553.6
25.00		1.00	0.95	23.451	25.80	445.29	0.650	0.000	5.00	22.906	14.89	614.5	0.0	1522.5
30.00		1.00	0.98	24.369	26.81	444.60	0.650	0.000	5.00	22.441	14.59	625.6	0.0	1491.3
35.00		1.00	1.01	25.172	27.69	442.40	0.650	0.000	5.00	21.975	14.28	632.8	0.0	1460.1
40.00		1.00	1.04	25.890	28.48	439.06	0.650	0.000	5.00	21.510	13.98	637.1	0.0	1428.9
42.75	Bot - Section 2	1.00	1.06	26.255	28.88	436.82	0.650	0.000	2.75	11.632	7.56	349.4	0.0	772.6
45.00		1.00	1.07	26.540	29.19	434.81	0.650	0.000	2.25	9.555	6.21	290.1	0.0	1169.8
49.00	Top - Section 1	1.00	1.09	27.020	29.72	430.88	0.650	0.000	4.00	16.754	10.89	517.9	0.0	2050.7
50.00		1.00	1.09	27.135	29.85	436.53	0.650	0.000	1.00	4.142	2.69	128.6	0.0	236.1
55.00		1.00	1.12	27.685	30.45	431.00	0.650	0.000	5.00	20.431	13.28	647.1	0.0	1164.3
60.00		1.00	1.14	28.197	31.02	424.94	0.650	0.000	5.00	19.965	12.98	644.0	0.0	1137.6
65.00		1.00	1.16	28.676	31.54	418.43	0.650	0.000	5.00	19.500	12.67	639.7	0.0	1110.8
70.00		1.00	1.17	29.127	32.04	411.52	0.650	0.000	5.00	19.034	12.37	634.2	0.0	1084.1
75.00		1.00	1.19	29.553	32.51	404.25	0.650	0.000	5.00	18.569	12.07	627.8	0.0	1057.4
80.00		1.00	1.21	29.958	32.95	396.68	0.650	0.000	5.00	18.103	11.77	620.4	0.0	1030.6
82.50	Bot - Section 3	1.00	1.22	30.152	33.17	392.78	0.650	0.000	2.50	8.877	5.77	306.2	0.0	505.3
85.00		1.00	1.22	30.342	33.38	388.82	0.650	0.000	2.50	8.893	5.78	308.7	0.0	921.1
87.75	Top - Section 2	1.00	1.23	30.546	33.60	384.39	0.650	0.000	2.75	9.648	6.27	337.1	0.0	999.0
90.00		1.00	1.24	30.710	33.78	386.65	0.650	0.000	2.25	7.789	5.06	273.6	0.0	369.9
95.00		1.00	1.25	31.061	34.17	378.33	0.650	0.000	5.00	16.971	11.03	603.1	0.0	805.9
100.00		1.00	1.27	31.399	34.54	369.80	0.650	0.000	5.00	16.506	10.73	592.9	0.0	783.7
105.00		1.00	1.28	31.723	34.89	361.08	0.650	0.000	5.00	16.040	10.43	582.1	0.0	761.4
110.00		1.00	1.29	32.035	35.24	352.16	0.650	0.000	5.00	15.575	10.12	570.8	0.0	739.1
115.00		1.00	1.30	32.336	35.57	343.08	0.650	0.000	5.00	15.109	9.82	558.9	0.0	716.8
120.00		1.00	1.32	32.627	35.89	333.84	0.650	0.000	5.00	14.644	9.52	546.6	0.0	694.6
123.25	Bot - Section 4	1.00	1.32	32.811	36.09	327.75	0.650	0.000	3.25	9.269	6.02	347.9	0.0	439.5
125.00		1.00	1.33	32.909	36.20	324.45	0.650	0.000	1.75	4.984	3.24	187.6	0.0	422.2
127.50	Top - Section 3	1.00	1.33	33.046	36.35	319.70	0.650	0.000	2.50	7.020	4.56	265.4	0.0	594.6
130.00		1.00	1.34	33.182	36.50	319.86	0.650	0.000	2.50	6.904	4.49	262.1	0.0	262.3
135.00		1.00	1.35	33.446	36.79	310.21	0.650	0.000	5.00	13.459	8.75	515.0	0.0	511.3
140.00		1.00	1.36	33.703	37.07	300.45	0.650	0.000	5.00	12.994	8.45	501.0	0.0	493.5
145.00		1.00	1.37	33.953	37.35	290.56	0.650	0.000	5.00	12.528	8.14	486.6	0.0	475.6
147.00	Appurtenance(s)	1.00	1.37	34.051	37.46	286.57	0.650	0.000	2.00	4.881	3.17	190.1	0.0	185.3
150.00		1.00	1.38	34.196	37.62	280.56	0.650	0.000	3.00	7.182	4.67	281.0	0.0	272.6
155.00		1.00	1.39	34.433	37.88	270.45	0.650	0.000	5.00	11.597	7.54	456.8	0.0	440.0
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	266.38	0.650	0.000	2.00	4.509	2.93	178.1	0.0	171.0
160.00		1.00	1.40	34.664	38.13	260.24	0.650	0.000	3.00	6.623	4.31	262.6	0.0	251.2
165.00		1.00	1.41	34.890	38.38	249.94	0.650	0.000	5.00	10.666	6.93	425.7	0.0	404.4
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	245.79	0.650	0.000	2.00	4.136	2.69	165.5	0.0	156.8
168.00	Appurtenance(s)	1.00	1.41	35.022	38.52	243.71	0.650	0.000	1.00	2.040	1.33	81.7	0.0	77.3
								Totals:	**168.00**			**19,253.6**		**35,572.5**

Discrete Appurtenance Forces

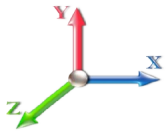
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	168.00	Lightning Rod	1	35.131	38.644	1.00	1.00	1.05	42.00	0.000	2.500	64.92	0.00	162.31
2	167.00	RFS APXVTM14-C-I20	3	34.978	38.476	0.62	0.80	11.87	201.60	0.000	0.000	730.64	0.00	0.00
3	167.00	Commscope	3	34.978	38.476	0.58	0.80	21.50	304.92	0.000	0.000	1323.39	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	34.978	38.476	0.54	0.80	3.83	216.00	0.000	0.000	235.60	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	34.978	38.476	0.54	0.80	6.85	381.60	0.000	0.000	421.70	0.00	0.00
6	167.00	ALU TD-RRH8x20-25	3	34.978	38.476	0.54	0.80	6.51	252.00	0.000	0.000	400.91	0.00	0.00
7	167.00	Reinforcement Kit (Site	1	34.978	38.476	0.75	0.75	7.13	557.89	0.000	0.000	438.63	0.00	0.00
8	167.00	Low Profile Platform	1	34.978	38.476	1.00	1.00	22.00	1800.00	0.000	0.000	1354.35	0.00	0.00
9	167.00	V-Brace Kit (Site Pro	1	34.978	38.476	0.75	0.75	5.03	276.00	0.000	0.000	309.35	0.00	0.00
10	167.00	Pipe2.0STD x 15'	1	34.978	38.476	0.75	0.75	5.06	314.06	0.000	0.000	311.66	0.00	0.00
11	167.00	Pipe2.0STD Mount Pipes	6	34.978	38.476	0.64	0.80	5.49	288.00	0.000	0.000	338.05	0.00	0.00
12	157.00	Low Profile Platform	1	34.526	37.979	1.00	1.00	22.00	1800.00	0.000	0.000	1336.86	0.00	0.00
13	157.00	Rfs DB-T1-6Z-8AB-0Z	1	34.526	37.979	0.54	0.80	2.57	52.80	0.000	0.000	156.34	0.00	0.00
14	157.00	Alcatel Lucent	3	34.526	37.979	0.54	0.80	5.63	216.00	0.000	0.000	341.99	0.00	0.00
15	157.00	Commscope	3	34.526	37.979	0.66	0.80	16.27	139.68	0.000	0.000	988.95	0.00	0.00
16	157.00	Commscope	6	34.526	37.979	0.64	0.80	32.76	293.76	0.000	0.000	1990.42	0.00	0.00
17	157.00	Amphenol	3	34.526	37.979	0.61	0.80	24.15	194.40	0.000	0.000	1467.50	0.00	0.00
18	157.00	Alcatel Lucent	3	34.526	37.979	0.54	0.80	5.63	216.00	0.000	0.000	341.99	0.00	0.00
19	147.00	Allen Telecom	3	34.051	37.456	0.48	0.80	0.78	63.00	0.000	0.000	46.60	0.00	0.00
20	147.00	RFS	3	34.051	37.456	0.62	0.80	6.78	67.32	0.000	0.000	406.13	0.00	0.00
21	147.00	RFS	3	34.051	37.456	0.58	0.80	34.97	460.80	0.000	0.000	2096.05	0.00	0.00
22	147.00	Ericsson KRY 112 489/2	3	34.051	37.456	0.48	0.80	0.81	55.44	0.000	0.000	48.33	0.00	0.00
23	147.00	Low Profile Platform	1	34.051	37.456	1.00	1.00	22.00	1800.00	0.000	0.000	1318.47	0.00	0.00
24	147.00	Ericsson Radio 4449	3	34.051	37.456	0.54	0.80	2.62	266.40	0.000	0.000	157.08	0.00	0.00
25	147.00	Kathrein 782 11056 Bias	3	34.051	37.456	0.48	0.80	0.22	6.48	0.000	0.000	12.94	0.00	0.00
26	147.00	Reinforcement Kit (Site	1	34.051	37.456	0.75	0.75	7.13	557.89	0.000	0.000	427.00	0.00	0.00
							Totals:		**10,824.05**			**17,065.85**		

Total Applied Force Summary

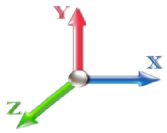
Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 10

TES Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		597.50	1713.59	0.00	0.00
10.00		586.27	1781.98	0.00	0.00
15.00		575.05	1750.79	0.00	0.00
20.00		598.23	1719.60	0.00	0.00
25.00		614.52	1688.41	0.00	0.00
30.00		625.59	1657.22	0.00	0.00
35.00		632.82	1626.03	0.00	0.00
40.00		637.08	1594.84	0.00	0.00
42.75		349.37	863.87	0.00	0.00
45.00		290.11	1244.47	0.00	0.00
49.00		517.89	2183.43	0.00	0.00
50.00		128.58	269.26	0.00	0.00
55.00		647.08	1330.26	0.00	0.00
60.00		644.02	1303.53	0.00	0.00
65.00		639.70	1276.79	0.00	0.00
70.00		634.25	1250.06	0.00	0.00
75.00		627.79	1223.32	0.00	0.00
80.00		620.43	1196.59	0.00	0.00
82.50		306.21	588.27	0.00	0.00
85.00		308.69	1004.05	0.00	0.00
87.75		337.14	1090.31	0.00	0.00
90.00		273.64	444.63	0.00	0.00
95.00		603.06	971.91	0.00	0.00
100.00		592.89	949.63	0.00	0.00
105.00		582.12	927.35	0.00	0.00
110.00		570.79	905.07	0.00	0.00
115.00		558.93	882.79	0.00	0.00
120.00		546.59	860.52	0.00	0.00
123.25		347.92	547.39	0.00	0.00
125.00		187.62	480.25	0.00	0.00
127.50		265.41	677.55	0.00	0.00
130.00		262.08	345.31	0.00	0.00
135.00		514.98	677.25	0.00	0.00
140.00		500.99	659.43	0.00	0.00
145.00		486.62	641.61	0.00	0.00
147.00	(20) attachments	4702.73	3528.98	0.00	0.00
150.00		280.96	327.20	0.00	0.00
155.00		456.83	531.08	0.00	0.00
157.00	(20) attachments	6802.13	3120.08	0.00	0.00
160.00		262.65	260.67	0.00	0.00
165.00		425.73	420.20	0.00	0.00
167.00	(28) attachments	6029.79	4755.16	0.00	0.00
168.00	(1) attachments	146.66	119.31	0.00	162.31
	Totals:	**36,319.42**	**51,390.05**	**0.00**	**162.31**

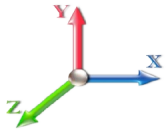
Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-51.33	-36.40	0.00	-4446.8	0.00	4446.83	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.679
5.00	-49.51	-35.95	0.00	-4264.8	0.00	4264.83	5435.34	2717.67	12856.9	6438.04	0.09	-0.175	0.000	0.672
10.00	-47.62	-35.51	0.00	-4085.0	0.00	4085.08	5368.23	2684.11	12453.6	6236.09	0.37	-0.353	0.000	0.664
15.00	-45.76	-35.06	0.00	-3907.5	0.00	3907.55	5299.69	2649.84	12053.2	6035.57	0.84	-0.533	0.000	0.656
20.00	-43.94	-34.59	0.00	-3732.2	0.00	3732.24	5229.71	2614.86	11655.8	5836.57	1.50	-0.715	0.000	0.648
25.00	-42.15	-34.09	0.00	-3559.3	0.00	3559.31	5158.30	2579.15	11261.6	5639.20	2.34	-0.901	0.000	0.640
30.00	-40.39	-33.56	0.00	-3388.8	0.00	3388.89	5085.46	2542.73	10870.9	5443.55	3.39	-1.088	0.000	0.631
35.00	-38.67	-33.03	0.00	-3221.0	0.00	3221.07	5011.18	2505.59	10483.8	5249.72	4.63	-1.278	0.000	0.621
40.00	-37.01	-32.45	0.00	-3055.9	0.00	3055.93	4935.46	2467.73	10100.6	5057.82	6.07	-1.471	0.000	0.612
42.75	-36.10	-32.14	0.00	-2966.7	0.00	2966.70	4893.21	2446.61	9891.54	4953.12	6.95	-1.579	0.000	0.607
45.00	-34.79	-31.89	0.00	-2894.3	0.00	2894.39	4858.32	2429.16	9721.41	4867.93	7.72	-1.668	0.000	0.602
49.00	-32.57	-31.36	0.00	-2766.8	0.00	2766.83	3959.59	1979.80	7922.06	3966.92	9.18	-1.827	0.000	0.706
50.00	-32.23	-31.30	0.00	-2735.4	0.00	2735.47	3948.01	1974.01	7862.92	3937.31	9.57	-1.868	0.000	0.703
55.00	-30.81	-30.73	0.00	-2578.9	0.00	2578.98	3889.26	1944.63	7568.72	3789.99	11.64	-2.088	0.000	0.689
60.00	-29.41	-30.15	0.00	-2425.3	0.00	2425.35	3829.07	1914.54	7277.15	3643.98	13.95	-2.311	0.000	0.674
65.00	-28.05	-29.56	0.00	-2274.6	0.00	2274.62	3767.45	1883.72	6988.40	3499.39	16.49	-2.536	0.000	0.658
70.00	-26.71	-28.98	0.00	-2126.8	0.00	2126.80	3704.39	1852.20	6702.67	3356.32	19.27	-2.762	0.000	0.641
75.00	-25.41	-28.39	0.00	-1981.9	0.00	1981.91	3639.90	1819.95	6420.16	3214.85	22.28	-2.989	0.000	0.624
80.00	-24.17	-27.78	0.00	-1839.9	0.00	1839.95	3573.98	1786.99	6141.06	3075.10	25.53	-3.217	0.000	0.605
82.50	-23.54	-27.49	0.00	-1770.5	0.00	1770.51	3540.48	1770.24	6002.85	3005.89	27.25	-3.333	0.000	0.596
85.00	-22.50	-27.17	0.00	-1701.7	0.00	1701.79	3506.62	1753.31	5865.57	2937.15	29.02	-3.450	0.000	0.586
87.75	-21.38	-26.81	0.00	-1627.0	0.00	1627.07	2761.71	1380.86	4636.01	2321.45	31.05	-3.578	0.000	0.709
90.00	-20.87	-26.57	0.00	-1566.7	0.00	1566.76	2740.07	1370.04	4543.51	2275.13	32.76	-3.683	0.000	0.697
95.00	-19.82	-26.00	0.00	-1433.8	0.00	1433.88	2690.94	1345.47	4339.45	2172.95	36.75	-3.942	0.000	0.668
100.00	-18.80	-25.42	0.00	-1303.9	0.00	1303.90	2640.38	1320.19	4137.62	2071.89	41.02	-4.199	0.000	0.637
105.00	-17.81	-24.85	0.00	-1176.7	0.00	1176.78	2588.38	1294.19	3938.22	1972.04	45.55	-4.452	0.000	0.604
110.00	-16.85	-24.28	0.00	-1052.5	0.00	1052.53	2534.95	1267.48	3741.44	1873.50	50.34	-4.701	0.000	0.569
115.00	-15.92	-23.72	0.00	-931.12	0.00	931.12	2480.09	1240.04	3547.48	1776.38	55.39	-4.943	0.000	0.531
120.00	-15.03	-23.15	0.00	-812.53	0.00	812.53	2423.79	1211.90	3356.53	1680.76	60.69	-5.177	0.000	0.490
123.25	-14.48	-22.78	0.00	-737.31	0.00	737.31	2386.43	1193.21	3234.12	1619.46	64.26	-5.326	0.000	0.462
125.00	-13.98	-22.57	0.00	-697.45	0.00	697.45	2366.06	1183.03	3168.79	1586.75	66.22	-5.405	0.000	0.446
127.50	-13.29	-22.27	0.00	-641.02	0.00	641.02	1766.99	883.49	2371.88	1187.70	69.08	-5.514	0.000	0.548
130.00	-12.90	-22.01	0.00	-585.35	0.00	585.35	1747.69	873.85	2306.16	1154.80	71.99	-5.620	0.000	0.515
135.00	-12.20	-21.48	0.00	-475.30	0.00	475.30	1708.02	854.01	2176.01	1089.62	77.99	-5.847	0.000	0.444
140.00	-11.53	-20.95	0.00	-367.92	0.00	367.92	1666.92	833.46	2047.71	1025.37	84.22	-6.047	0.000	0.366
145.00	-10.91	-20.42	0.00	-263.19	0.00	263.19	1624.39	812.19	1921.45	962.15	90.63	-6.215	0.000	0.281
147.00	-7.89	-15.37	0.00	-222.36	0.00	222.36	1606.97	803.49	1871.57	937.18	93.25	-6.272	0.000	0.243
150.00	-7.57	-15.06	0.00	-176.26	0.00	176.26	1580.42	790.21	1797.44	900.06	97.20	-6.347	0.000	0.201
155.00	-7.08	-14.56	0.00	-100.96	0.00	100.96	1535.02	767.51	1675.88	839.18	103.89	-6.439	0.000	0.125
157.00	-4.74	-7.45	0.00	-71.84	0.00	71.84	1516.46	758.23	1627.98	815.20	106.59	-6.465	0.000	0.091
160.00	-4.51	-7.16	0.00	-49.50	0.00	49.50	1488.18	744.09	1556.95	779.63	110.65	-6.494	0.000	0.067
165.00	-4.14	-6.69	0.00	-13.70	0.00	13.70	1439.00	719.50	1439.93	721.04	117.46	-6.521	0.000	0.022
167.00	-0.10	-0.16	0.00	-0.32	0.00	0.32	1413.06	706.53	1388.23	695.14	120.18	-6.524	0.000	0.001
168.00	0.00	-0.15	0.00	-0.16	0.00	0.16	1400.09	700.04	1362.73	682.38	121.55	-6.524	0.000	0.000

Wind Loading - Shaft

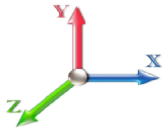
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	21.088	23.20	465.60	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	456.93	0.650	0.000	5.00	24.768	16.10	597.5	0.0	1235.4
10.00		1.00	0.85	21.088	23.20	448.26	0.650	0.000	5.00	24.302	15.80	586.3	0.0	1212.0
15.00		1.00	0.85	21.088	23.20	439.59	0.650	0.000	5.00	23.837	15.49	575.0	0.0	1188.6
20.00		1.00	0.90	22.375	24.61	443.88	0.650	0.000	5.00	23.372	15.19	598.2	0.0	1165.2
25.00		1.00	0.95	23.451	25.80	445.29	0.650	0.000	5.00	22.906	14.89	614.5	0.0	1141.8
30.00		1.00	0.98	24.369	26.81	444.60	0.650	0.000	5.00	22.441	14.59	625.6	0.0	1118.4
35.00		1.00	1.01	25.172	27.69	442.40	0.650	0.000	5.00	21.975	14.28	632.8	0.0	1095.1
40.00		1.00	1.04	25.890	28.48	439.06	0.650	0.000	5.00	21.510	13.98	637.1	0.0	1071.7
42.75	Bot - Section 2	1.00	1.06	26.255	28.88	436.82	0.650	0.000	2.75	11.632	7.56	349.4	0.0	579.4
45.00		1.00	1.07	26.540	29.19	434.81	0.650	0.000	2.25	9.555	6.21	290.1	0.0	877.3
49.00	Top - Section 1	1.00	1.09	27.020	29.72	430.88	0.650	0.000	4.00	16.754	10.89	517.9	0.0	1538.0
50.00		1.00	1.09	27.135	29.85	436.53	0.650	0.000	1.00	4.142	2.69	128.6	0.0	177.1
55.00		1.00	1.12	27.685	30.45	431.00	0.650	0.000	5.00	20.431	13.28	647.1	0.0	873.2
60.00		1.00	1.14	28.197	31.02	424.94	0.650	0.000	5.00	19.965	12.98	644.0	0.0	853.2
65.00		1.00	1.16	28.676	31.54	418.43	0.650	0.000	5.00	19.500	12.67	639.7	0.0	833.1
70.00		1.00	1.17	29.127	32.04	411.52	0.650	0.000	5.00	19.034	12.37	634.2	0.0	813.1
75.00		1.00	1.19	29.553	32.51	404.25	0.650	0.000	5.00	18.569	12.07	627.8	0.0	793.0
80.00		1.00	1.21	29.958	32.95	396.68	0.650	0.000	5.00	18.103	11.77	620.4	0.0	773.0
82.50	Bot - Section 3	1.00	1.22	30.152	33.17	392.78	0.650	0.000	2.50	8.877	5.77	306.2	0.0	379.0
85.00		1.00	1.22	30.342	33.38	388.82	0.650	0.000	2.50	8.893	5.78	308.7	0.0	690.8
87.75	Top - Section 2	1.00	1.23	30.546	33.60	384.39	0.650	0.000	2.75	9.648	6.27	337.1	0.0	749.3
90.00		1.00	1.24	30.710	33.78	386.65	0.650	0.000	2.25	7.789	5.06	273.6	0.0	277.5
95.00		1.00	1.25	31.061	34.17	378.33	0.650	0.000	5.00	16.971	11.03	603.1	0.0	604.5
100.00		1.00	1.27	31.399	34.54	369.80	0.650	0.000	5.00	16.506	10.73	592.9	0.0	587.8
105.00		1.00	1.28	31.723	34.89	361.08	0.650	0.000	5.00	16.040	10.43	582.1	0.0	571.0
110.00		1.00	1.29	32.035	35.24	352.16	0.650	0.000	5.00	15.575	10.12	570.8	0.0	554.3
115.00		1.00	1.30	32.336	35.57	343.08	0.650	0.000	5.00	15.109	9.82	558.9	0.0	537.6
120.00		1.00	1.32	32.627	35.89	333.84	0.650	0.000	5.00	14.644	9.52	546.6	0.0	520.9
123.25	Bot - Section 4	1.00	1.32	32.811	36.09	327.75	0.650	0.000	3.25	9.269	6.02	347.9	0.0	329.6
125.00		1.00	1.33	32.909	36.20	324.45	0.650	0.000	1.75	4.984	3.24	187.6	0.0	316.6
127.50	Top - Section 3	1.00	1.33	33.046	36.35	319.70	0.650	0.000	2.50	7.020	4.56	265.4	0.0	445.9
130.00		1.00	1.34	33.182	36.50	319.86	0.650	0.000	2.50	6.904	4.49	262.1	0.0	196.7
135.00		1.00	1.35	33.446	36.79	310.21	0.650	0.000	5.00	13.459	8.75	515.0	0.0	383.5
140.00		1.00	1.36	33.703	37.07	300.45	0.650	0.000	5.00	12.994	8.45	501.0	0.0	370.1
145.00		1.00	1.37	33.953	37.35	290.56	0.650	0.000	5.00	12.528	8.14	486.6	0.0	356.7
147.00	Appurtenance(s)	1.00	1.37	34.051	37.46	286.57	0.650	0.000	2.00	4.881	3.17	190.1	0.0	139.0
150.00		1.00	1.38	34.196	37.62	280.56	0.650	0.000	3.00	7.182	4.67	281.0	0.0	204.4
155.00		1.00	1.39	34.433	37.88	270.45	0.650	0.000	5.00	11.597	7.54	456.8	0.0	330.0
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	266.38	0.650	0.000	2.00	4.509	2.93	178.1	0.0	128.3
160.00		1.00	1.40	34.664	38.13	260.24	0.650	0.000	3.00	6.623	4.31	262.6	0.0	188.4
165.00		1.00	1.41	34.890	38.38	249.94	0.650	0.000	5.00	10.666	6.93	425.7	0.0	303.3
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	245.79	0.650	0.000	2.00	4.136	2.69	165.5	0.0	117.6
168.00	Appurtenance(s)	1.00	1.41	35.022	38.52	243.71	0.650	0.000	1.00	2.040	1.33	81.7	0.0	58.0
								Totals:	**168.00**			**19,253.6**		**26,679.4**

Discrete Appurtenance Forces

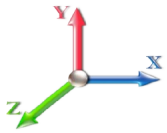
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	168.00	Lightning Rod	1	35.131	38.644	1.00	1.00	1.05	31.50	0.000	2.500	64.92	0.00	162.31
2	167.00	RFS APXVTM14-C-I20	3	34.978	38.476	0.62	0.80	11.87	151.20	0.000	0.000	730.64	0.00	0.00
3	167.00	Commscope	3	34.978	38.476	0.58	0.80	21.50	228.69	0.000	0.000	1323.39	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	34.978	38.476	0.54	0.80	3.83	162.00	0.000	0.000	235.60	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	34.978	38.476	0.54	0.80	6.85	286.20	0.000	0.000	421.70	0.00	0.00
6	167.00	ALU TD-RRH8x20-25	3	34.978	38.476	0.54	0.80	6.51	189.00	0.000	0.000	400.91	0.00	0.00
7	167.00	Reinforcement Kit (Site	1	34.978	38.476	0.75	0.75	7.13	418.42	0.000	0.000	438.63	0.00	0.00
8	167.00	Low Profile Platform	1	34.978	38.476	1.00	1.00	22.00	1350.00	0.000	0.000	1354.35	0.00	0.00
9	167.00	V-Brace Kit (Site Pro	1	34.978	38.476	0.75	0.75	5.03	207.00	0.000	0.000	309.35	0.00	0.00
10	167.00	Pipe2.0STD x 15'	1	34.978	38.476	0.75	0.75	5.06	235.55	0.000	0.000	311.66	0.00	0.00
11	167.00	Pipe2.0STD Mount Pipes	6	34.978	38.476	0.64	0.80	5.49	216.00	0.000	0.000	338.05	0.00	0.00
12	157.00	Low Profile Platform	1	34.526	37.979	1.00	1.00	22.00	1350.00	0.000	0.000	1336.86	0.00	0.00
13	157.00	Rfs DB-T1-6Z-8AB-0Z	1	34.526	37.979	0.54	0.80	2.57	39.60	0.000	0.000	156.34	0.00	0.00
14	157.00	Alcatel Lucent	3	34.526	37.979	0.54	0.80	5.63	162.00	0.000	0.000	341.99	0.00	0.00
15	157.00	Commscope	3	34.526	37.979	0.66	0.80	16.27	104.76	0.000	0.000	988.95	0.00	0.00
16	157.00	Commscope	6	34.526	37.979	0.64	0.80	32.76	220.32	0.000	0.000	1990.42	0.00	0.00
17	157.00	Amphenol	3	34.526	37.979	0.61	0.80	24.15	145.80	0.000	0.000	1467.50	0.00	0.00
18	157.00	Alcatel Lucent	3	34.526	37.979	0.54	0.80	5.63	162.00	0.000	0.000	341.99	0.00	0.00
19	147.00	Allen Telecom	3	34.051	37.456	0.48	0.80	0.78	47.25	0.000	0.000	46.60	0.00	0.00
20	147.00	RFS	3	34.051	37.456	0.62	0.80	6.78	50.49	0.000	0.000	406.13	0.00	0.00
21	147.00	RFS	3	34.051	37.456	0.58	0.80	34.97	345.60	0.000	0.000	2096.05	0.00	0.00
22	147.00	Ericsson KRY 112 489/2	3	34.051	37.456	0.48	0.80	0.81	41.58	0.000	0.000	48.33	0.00	0.00
23	147.00	Low Profile Platform	1	34.051	37.456	1.00	1.00	22.00	1350.00	0.000	0.000	1318.47	0.00	0.00
24	147.00	Ericsson Radio 4449	3	34.051	37.456	0.54	0.80	2.62	199.80	0.000	0.000	157.08	0.00	0.00
25	147.00	Kathrein 782 11056 Bias	3	34.051	37.456	0.48	0.80	0.22	4.86	0.000	0.000	12.94	0.00	0.00
26	147.00	Reinforcement Kit (Site	1	34.051	37.456	0.75	0.75	7.13	418.42	0.000	0.000	427.00	0.00	0.00
							Totals:		**8,118.04**			**17,065.85**		

Total Applied Force Summary

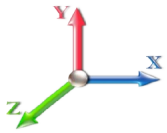
Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 14

TES Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		597.50	1285.19	0.00	0.00
10.00		586.27	1336.48	0.00	0.00
15.00		575.05	1313.09	0.00	0.00
20.00		598.23	1289.70	0.00	0.00
25.00		614.52	1266.31	0.00	0.00
30.00		625.59	1242.92	0.00	0.00
35.00		632.82	1219.52	0.00	0.00
40.00		637.08	1196.13	0.00	0.00
42.75		349.37	647.90	0.00	0.00
45.00		290.11	933.35	0.00	0.00
49.00		517.89	1637.57	0.00	0.00
50.00		128.58	201.94	0.00	0.00
55.00		647.08	997.69	0.00	0.00
60.00		644.02	977.64	0.00	0.00
65.00		639.70	957.59	0.00	0.00
70.00		634.25	937.54	0.00	0.00
75.00		627.79	917.49	0.00	0.00
80.00		620.43	897.44	0.00	0.00
82.50		306.21	441.20	0.00	0.00
85.00		308.69	753.04	0.00	0.00
87.75		337.14	817.73	0.00	0.00
90.00		273.64	333.47	0.00	0.00
95.00		603.06	728.93	0.00	0.00
100.00		592.89	712.22	0.00	0.00
105.00		582.12	695.51	0.00	0.00
110.00		570.79	678.80	0.00	0.00
115.00		558.93	662.10	0.00	0.00
120.00		546.59	645.39	0.00	0.00
123.25		347.92	410.54	0.00	0.00
125.00		187.62	360.19	0.00	0.00
127.50		265.41	508.16	0.00	0.00
130.00		262.08	258.98	0.00	0.00
135.00		514.98	507.94	0.00	0.00
140.00		500.99	494.57	0.00	0.00
145.00		486.62	481.20	0.00	0.00
147.00	(20) attachments	4702.73	2646.74	0.00	0.00
150.00		280.96	245.40	0.00	0.00
155.00		456.83	398.31	0.00	0.00
157.00	(20) attachments	6802.13	2340.06	0.00	0.00
160.00		262.65	195.50	0.00	0.00
165.00		425.73	315.15	0.00	0.00
167.00	(28) attachments	6029.79	3566.37	0.00	0.00
168.00	(1) attachments	146.66	89.48	0.00	162.31
	Totals:	**36,319.42**	**38,542.54**	**0.00**	**162.31**

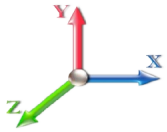
Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-38.49	-36.38	0.00	-4397.4	0.00	4397.49	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.669
5.00	-37.09	-35.89	0.00	-4215.6	0.00	4215.60	5435.34	2717.67	12856.9	6438.04	0.09	-0.173	0.000	0.662
10.00	-35.65	-35.41	0.00	-4036.1	0.00	4036.14	5368.23	2684.11	12453.6	6236.09	0.37	-0.349	0.000	0.654
15.00	-34.23	-34.93	0.00	-3859.0	0.00	3859.09	5299.69	2649.84	12053.2	6035.57	0.83	-0.526	0.000	0.646
20.00	-32.84	-34.42	0.00	-3684.4	0.00	3684.43	5229.71	2614.86	11655.8	5836.57	1.48	-0.707	0.000	0.638
25.00	-31.47	-33.89	0.00	-3512.3	0.00	3512.32	5158.30	2579.15	11261.6	5639.20	2.32	-0.890	0.000	0.629
30.00	-30.13	-33.34	0.00	-3342.8	0.00	3342.85	5085.46	2542.73	10870.9	5443.55	3.35	-1.075	0.000	0.620
35.00	-28.82	-32.78	0.00	-3176.1	0.00	3176.13	5011.18	2505.59	10483.8	5249.72	4.57	-1.262	0.000	0.611
40.00	-27.56	-32.19	0.00	-3012.2	0.00	3012.23	4935.46	2467.73	10100.6	5057.82	6.00	-1.452	0.000	0.601
42.75	-26.86	-31.87	0.00	-2923.7	0.00	2923.71	4893.21	2446.61	9891.54	4953.12	6.86	-1.559	0.000	0.596
45.00	-25.87	-31.61	0.00	-2852.0	0.00	2852.01	4858.32	2429.16	9721.41	4867.93	7.62	-1.647	0.000	0.591
49.00	-24.20	-31.08	0.00	-2725.5	0.00	2725.59	3959.59	1979.80	7922.06	3966.92	9.07	-1.803	0.000	0.693
50.00	-23.93	-31.00	0.00	-2694.5	0.00	2694.51	3948.01	1974.01	7862.92	3937.31	9.45	-1.843	0.000	0.691
55.00	-22.84	-30.41	0.00	-2539.5	0.00	2539.51	3889.26	1944.63	7568.72	3789.99	11.50	-2.060	0.000	0.676
60.00	-21.77	-29.81	0.00	-2387.4	0.00	2387.48	3829.07	1914.54	7277.15	3643.98	13.77	-2.280	0.000	0.661
65.00	-20.73	-29.21	0.00	-2238.4	0.00	2238.43	3767.45	1883.72	6988.40	3499.39	16.28	-2.501	0.000	0.645
70.00	-19.71	-28.61	0.00	-2092.3	0.00	2092.38	3704.39	1852.20	6702.67	3356.32	19.02	-2.723	0.000	0.629
75.00	-18.71	-28.01	0.00	-1949.3	0.00	1949.32	3639.90	1819.95	6420.16	3214.85	21.99	-2.947	0.000	0.612
80.00	-17.77	-27.40	0.00	-1809.2	0.00	1809.26	3573.98	1786.99	6141.06	3075.10	25.19	-3.171	0.000	0.594
82.50	-17.29	-27.10	0.00	-1740.7	0.00	1740.76	3540.48	1770.24	6002.85	3005.89	26.88	-3.285	0.000	0.584
85.00	-16.50	-26.78	0.00	-1673.0	0.00	1673.01	3506.62	1753.31	5865.57	2937.15	28.63	-3.400	0.000	0.575
87.75	-15.66	-26.43	0.00	-1599.3	0.00	1599.36	2761.71	1380.86	4636.01	2321.45	30.63	-3.525	0.000	0.695
90.00	-15.26	-26.18	0.00	-1539.8	0.00	1539.89	2740.07	1370.04	4543.51	2275.13	32.31	-3.629	0.000	0.683
95.00	-14.46	-25.60	0.00	-1408.9	0.00	1408.97	2690.94	1345.47	4339.45	2172.95	36.25	-3.883	0.000	0.654
100.00	-13.68	-25.02	0.00	-1280.9	0.00	1280.98	2640.38	1320.19	4137.62	2071.89	40.45	-4.136	0.000	0.624
105.00	-12.92	-24.44	0.00	-1155.8	0.00	1155.89	2588.38	1294.19	3938.22	1972.04	44.91	-4.385	0.000	0.591
110.00	-12.19	-23.87	0.00	-1033.6	0.00	1033.69	2534.95	1267.48	3741.44	1873.50	49.63	-4.629	0.000	0.557
115.00	-11.48	-23.31	0.00	-914.34	0.00	914.34	2480.09	1240.04	3547.48	1776.38	54.60	-4.867	0.000	0.520
120.00	-10.81	-22.74	0.00	-797.81	0.00	797.81	2423.79	1211.90	3356.53	1680.76	59.82	-5.097	0.000	0.479
123.25	-10.39	-22.38	0.00	-723.91	0.00	723.91	2386.43	1193.21	3234.12	1619.46	63.34	-5.243	0.000	0.452
125.00	-10.01	-22.17	0.00	-684.75	0.00	684.75	2366.06	1183.03	3168.79	1586.75	65.27	-5.321	0.000	0.436
127.50	-9.49	-21.88	0.00	-629.32	0.00	629.32	1766.99	883.49	2371.88	1187.70	68.08	-5.428	0.000	0.536
130.00	-9.20	-21.62	0.00	-574.62	0.00	574.62	1747.69	873.85	2306.16	1154.80	70.95	-5.531	0.000	0.503
135.00	-8.66	-21.09	0.00	-466.52	0.00	466.52	1708.02	854.01	2176.01	1089.62	76.85	-5.754	0.000	0.434
140.00	-8.16	-20.57	0.00	-361.07	0.00	361.07	1666.92	833.46	2047.71	1025.37	82.98	-5.951	0.000	0.358
145.00	-7.69	-20.05	0.00	-258.24	0.00	258.24	1624.39	812.19	1921.45	962.15	89.30	-6.115	0.000	0.274
147.00	-5.55	-15.09	0.00	-218.15	0.00	218.15	1606.97	803.49	1871.57	937.18	91.87	-6.172	0.000	0.237
150.00	-5.31	-14.80	0.00	-172.87	0.00	172.87	1580.42	790.21	1797.44	900.06	95.76	-6.245	0.000	0.196
155.00	-4.95	-14.30	0.00	-98.89	0.00	98.89	1535.02	767.51	1675.88	839.18	102.34	-6.335	0.000	0.121
157.00	-3.38	-7.28	0.00	-70.28	0.00	70.28	1516.46	758.23	1627.98	815.20	105.00	-6.361	0.000	0.089
160.00	-3.21	-7.00	0.00	-48.43	0.00	48.43	1488.18	744.09	1556.95	779.63	109.00	-6.389	0.000	0.064
165.00	-2.94	-6.55	0.00	-13.41	0.00	13.41	1439.00	719.50	1439.93	721.04	115.69	-6.415	0.000	0.021
167.00	-0.07	-0.16	0.00	-0.32	0.00	0.32	1413.06	706.53	1388.23	695.14	118.37	-6.418	0.000	0.001
168.00	0.00	-0.15	0.00	-0.16	0.00	0.16	1400.09	700.04	1362.73	682.38	119.71	-6.418	0.000	0.000

Wind Loading - Shaft

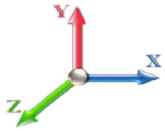
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	25.803	30.96	176.0	460.9	2108.1
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	25.412	30.49	173.4	485.5	2101.5
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	24.992	29.99	170.5	496.5	2081.3
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	24.560	29.47	177.8	501.5	2055.2
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	24.122	28.95	183.0	503.1	2025.5
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	23.679	28.41	186.7	502.3	1993.6
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	23.232	27.88	189.2	500.0	1960.0
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	5.00	22.784	27.34	190.8	496.3	1925.2
42.75	Bot - Section 2	1.00	1.06	6.434	7.08	0.00	1.200	1.539	2.75	12.337	14.80	104.8	271.6	1044.2
45.00		1.00	1.07	6.504	7.15	0.00	1.200	1.547	2.25	10.135	12.16	87.0	224.5	1394.3
49.00	Top - Section 1	1.00	1.09	6.622	7.28	0.00	1.200	1.560	4.00	17.794	21.35	155.5	395.8	2446.5
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	1.00	4.403	5.28	38.6	98.7	334.8
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	5.00	21.746	26.10	194.8	487.6	1651.9
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	21.292	25.55	194.2	481.1	1618.6
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	5.00	20.837	25.00	193.3	474.0	1584.8
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	20.382	24.46	192.0	466.5	1550.6
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	19.926	23.91	190.5	458.6	1516.0
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	5.00	19.469	23.36	188.7	450.4	1481.0
82.50	Bot - Section 3	1.00	1.22	7.390	8.13	0.00	1.200	1.644	2.50	9.562	11.47	93.3	223.1	728.4
85.00		1.00	1.22	7.436	8.18	0.00	1.200	1.649	2.50	9.580	11.50	94.0	224.2	1145.2
87.75	Top - Section 2	1.00	1.23	7.486	8.23	0.00	1.200	1.654	2.75	10.406	12.49	102.8	243.9	1243.0
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	2.25	8.411	10.09	83.6	197.8	567.7
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	5.00	18.361	22.03	184.5	430.5	1236.5
100.00		1.00	1.27	7.695	8.46	0.00	1.200	1.676	5.00	17.902	21.48	181.8	421.3	1204.9
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	5.00	17.444	20.93	179.0	411.8	1173.2
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	5.00	16.985	20.38	176.0	402.1	1141.2
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	16.526	19.83	172.9	392.3	1109.1
120.00		1.00	1.32	7.996	8.80	0.00	1.200	1.707	5.00	16.066	19.28	169.6	382.3	1076.8
123.25	Bot - Section 4	1.00	1.32	8.041	8.85	0.00	1.200	1.711	3.25	10.196	12.24	108.2	244.2	683.7
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	1.75	5.483	6.58	58.4	132.1	554.3
127.50	Top - Section 3	1.00	1.33	8.099	8.91	0.00	1.200	1.717	2.50	7.736	9.28	82.7	186.2	780.7
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	2.50	7.621	9.15	81.8	183.6	445.9
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	5.00	14.898	17.88	161.2	356.7	868.0
140.00		1.00	1.36	8.260	9.09	0.00	1.200	1.733	5.00	14.438	17.33	157.4	346.1	839.6
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	5.00	13.978	16.77	153.5	335.4	811.1
147.00	Appurtenance(s)	1.00	1.37	8.345	9.18	0.00	1.200	1.742	2.00	5.461	6.55	60.2	132.4	317.7
150.00		1.00	1.38	8.381	9.22	0.00	1.200	1.745	3.00	8.054	9.67	89.1	194.8	467.3
155.00		1.00	1.39	8.439	9.28	0.00	1.200	1.751	5.00	13.056	15.67	145.4	313.6	753.6
157.00	Appurtenance(s)	1.00	1.39	8.462	9.31	0.00	1.200	1.753	2.00	5.093	6.11	56.9	123.7	294.7
160.00		1.00	1.40	8.495	9.34	0.00	1.200	1.757	3.00	7.501	9.00	84.1	181.6	432.7
165.00		1.00	1.41	8.551	9.41	0.00	1.200	1.762	5.00	12.135	14.56	137.0	291.4	695.8
167.00	Appurtenance(s)	1.00	1.41	8.572	9.43	0.00	1.200	1.764	2.00	4.724	5.67	53.5	114.8	271.5
168.00	Appurtenance(s)	1.00	1.41	8.583	9.44	0.00	1.200	1.765	1.00	2.334	2.80	26.4	56.9	134.2
								Totals:	**168.00**			**5,880.1**		**49,850.3**

Discrete Appurtenance Forces

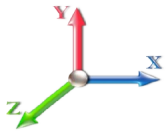
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	168.00	Lightning Rod	1	8.610	9.471	1.00	1.00	3.45	64.77	0.000	2.500	32.68	0.00	81.70
2	167.00	RFS APXVTM14-C-I20	3	8.572	9.429	0.62	0.80	13.98	689.09	0.000	0.000	131.79	0.00	0.00
3	167.00	Commscope	3	8.572	9.429	0.58	0.80	24.08	1077.01	0.000	0.000	227.02	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	8.572	9.429	0.54	0.80	5.60	397.31	0.000	0.000	52.79	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	8.572	9.429	0.54	0.80	10.03	703.55	0.000	0.000	94.58	0.00	0.00
6	167.00	ALU TD-RRH8x20-25	3	8.572	9.429	0.54	0.80	7.84	587.72	0.000	0.000	73.88	0.00	0.00
7	167.00	Reinforcement Kit (Site	1	8.572	9.429	0.75	0.75	14.67	790.85	0.000	0.000	138.30	0.00	0.00
8	167.00	Low Profile Platform	1	8.572	9.429	1.00	1.00	39.85	2823.04	0.000	0.000	375.78	0.00	0.00
9	167.00	V-Brace Kit (Site Pro	1	8.572	9.429	0.75	0.75	10.34	499.59	0.000	0.000	97.53	0.00	0.00
10	167.00	Pipe2.0STD x 15'	1	8.572	9.429	0.75	0.75	10.06	889.73	0.000	0.000	94.89	0.00	0.00
11	167.00	Pipe2.0STD Mount Pipes	6	8.572	9.429	0.64	0.80	18.09	636.88	0.000	0.000	170.56	0.00	0.00
12	157.00	Low Profile Platform	1	8.462	9.308	1.00	1.00	39.74	2814.90	0.000	0.000	369.91	0.00	0.00
13	157.00	Rfs DB-T1-6Z-8AB-0Z	1	8.462	9.308	0.54	0.80	3.04	197.30	0.000	0.000	28.33	0.00	0.00
14	157.00	Alcatel Lucent	3	8.462	9.308	0.54	0.80	7.01	418.76	0.000	0.000	65.21	0.00	0.00
15	157.00	Commscope	3	8.462	9.308	0.66	0.80	21.92	519.50	0.000	0.000	204.06	0.00	0.00
16	157.00	Commscope	6	8.462	9.308	0.64	0.80	43.99	1052.05	0.000	0.000	409.42	0.00	0.00
17	157.00	Amphenol	3	8.462	9.308	0.61	0.80	32.53	727.83	0.000	0.000	302.81	0.00	0.00
18	157.00	Alcatel Lucent	3	8.462	9.308	0.54	0.80	8.44	403.17	0.000	0.000	78.59	0.00	0.00
19	147.00	Allen Telecom	3	8.345	9.180	0.48	0.80	1.28	147.26	0.000	0.000	11.76	0.00	0.00
20	147.00	RFS	3	8.345	9.180	0.62	0.80	10.26	217.12	0.000	0.000	94.15	0.00	0.00
21	147.00	RFS	3	8.345	9.180	0.58	0.80	38.25	1749.35	0.000	0.000	351.13	0.00	0.00
22	147.00	Ericsson KRY 112 489/2	3	8.345	9.180	0.48	0.80	1.31	129.91	0.000	0.000	12.00	0.00	0.00
23	147.00	Low Profile Platform	1	8.345	9.180	1.00	1.00	39.63	2806.27	0.000	0.000	363.75	0.00	0.00
24	147.00	Ericsson Radio 4449	3	8.345	9.180	0.54	0.80	3.47	467.74	0.000	0.000	31.88	0.00	0.00
25	147.00	Kathrein 782 11056 Bias	3	8.345	9.180	0.48	0.80	0.51	34.24	0.000	0.000	4.67	0.00	0.00
26	147.00	Reinforcement Kit (Site	1	8.345	9.180	0.75	0.75	14.57	786.69	0.000	0.000	133.75	0.00	0.00
							Totals:		**21,631.63**			**3,951.23**		

Total Applied Force Summary

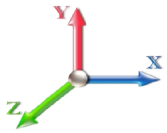
Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 18

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		176.02	2174.47	0.00	0.00
10.00		173.35	2267.49	0.00	0.00
15.00		170.49	2247.31	0.00	0.00
20.00		177.77	2221.13	0.00	0.00
25.00		183.00	2191.49	0.00	0.00
30.00		186.66	2159.56	0.00	0.00
35.00		189.19	2125.99	0.00	0.00
40.00		190.82	2091.17	0.00	0.00
42.75		104.79	1135.51	0.00	0.00
45.00		87.02	1469.01	0.00	0.00
49.00		155.54	2579.25	0.00	0.00
50.00		38.65	367.99	0.00	0.00
55.00		194.76	1817.90	0.00	0.00
60.00		194.22	1784.58	0.00	0.00
65.00		193.30	1750.77	0.00	0.00
70.00		192.05	1716.54	0.00	0.00
75.00		190.50	1681.92	0.00	0.00
80.00		188.68	1646.96	0.00	0.00
82.50		93.27	811.34	0.00	0.00
85.00		94.03	1228.20	0.00	0.00
87.75		102.83	1334.24	0.00	0.00
90.00		83.56	642.42	0.00	0.00
95.00		184.49	1402.42	0.00	0.00
100.00		181.84	1370.89	0.00	0.00
105.00		179.01	1339.15	0.00	0.00
110.00		176.02	1307.21	0.00	0.00
115.00		172.87	1275.09	0.00	0.00
120.00		169.58	1242.79	0.00	0.00
123.25		108.22	791.58	0.00	0.00
125.00		58.38	612.36	0.00	0.00
127.50		82.70	863.72	0.00	0.00
130.00		81.80	528.89	0.00	0.00
135.00		161.20	1033.96	0.00	0.00
140.00		157.42	1005.56	0.00	0.00
145.00		153.53	977.03	0.00	0.00
147.00	(20) attachments	1063.25	6722.68	0.00	0.00
150.00		89.10	521.96	0.00	0.00
155.00		145.44	844.73	0.00	0.00
157.00	(20) attachments	1515.21	6464.64	0.00	0.00
160.00		84.12	442.23	0.00	0.00
165.00		136.96	711.64	0.00	0.00
167.00	(28) attachments	1510.59	9372.63	0.00	0.00
168.00	(1) attachments	59.13	199.02	0.00	81.70
	Totals:	**9,831.34**	**76,475.42**	**0.00**	**81.70**

Calculated Forces

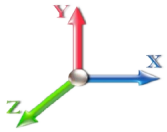
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-76.47	-9.86	0.00	-1199.8	0.00	1199.88	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.195
5.00	-74.29	-9.75	0.00	-1150.5	0.00	1150.57	5435.34	2717.67	12856.9	6438.04	0.03	-0.047	0.000	0.192
10.00	-72.01	-9.63	0.00	-1101.8	0.00	1101.83	5368.23	2684.11	12453.6	6236.09	0.10	-0.095	0.000	0.190
15.00	-69.76	-9.52	0.00	-1053.6	0.00	1053.68	5299.69	2649.84	12053.2	6035.57	0.23	-0.144	0.000	0.188
20.00	-67.53	-9.39	0.00	-1006.0	0.00	1006.09	5229.71	2614.86	11655.8	5836.57	0.40	-0.193	0.000	0.185
25.00	-65.33	-9.26	0.00	-959.14	0.00	959.14	5158.30	2579.15	11261.6	5639.20	0.63	-0.243	0.000	0.183
30.00	-63.16	-9.12	0.00	-912.86	0.00	912.86	5085.46	2542.73	10870.9	5443.55	0.91	-0.293	0.000	0.180
35.00	-61.03	-8.97	0.00	-867.28	0.00	867.28	5011.18	2505.59	10483.8	5249.72	1.25	-0.345	0.000	0.177
40.00	-58.94	-8.81	0.00	-822.44	0.00	822.44	4935.46	2467.73	10100.6	5057.82	1.64	-0.396	0.000	0.175
42.75	-57.80	-8.72	0.00	-798.22	0.00	798.22	4893.21	2446.61	9891.54	4953.12	1.87	-0.426	0.000	0.173
45.00	-56.32	-8.66	0.00	-778.60	0.00	778.60	4858.32	2429.16	9721.41	4867.93	2.08	-0.450	0.000	0.172
49.00	-53.74	-8.50	0.00	-743.98	0.00	743.98	3959.59	1979.80	7922.06	3966.92	2.48	-0.492	0.000	0.201
50.00	-53.37	-8.49	0.00	-735.48	0.00	735.48	3948.01	1974.01	7862.92	3937.31	2.58	-0.503	0.000	0.200
55.00	-51.54	-8.34	0.00	-693.00	0.00	693.00	3889.26	1944.63	7568.72	3789.99	3.14	-0.563	0.000	0.196
60.00	-49.75	-8.18	0.00	-651.32	0.00	651.32	3829.07	1914.54	7277.15	3643.98	3.76	-0.622	0.000	0.192
65.00	-48.00	-8.01	0.00	-610.44	0.00	610.44	3767.45	1883.72	6988.40	3499.39	4.44	-0.683	0.000	0.187
70.00	-46.27	-7.85	0.00	-570.38	0.00	570.38	3704.39	1852.20	6702.67	3356.32	5.19	-0.743	0.000	0.182
75.00	-44.59	-7.68	0.00	-531.13	0.00	531.13	3639.90	1819.95	6420.16	3214.85	6.00	-0.804	0.000	0.177
80.00	-42.94	-7.51	0.00	-492.71	0.00	492.71	3573.98	1786.99	6141.06	3075.10	6.88	-0.865	0.000	0.172
82.50	-42.12	-7.42	0.00	-473.95	0.00	473.95	3540.48	1770.24	6002.85	3005.89	7.34	-0.896	0.000	0.170
85.00	-40.89	-7.33	0.00	-455.40	0.00	455.40	3506.62	1753.31	5865.57	2937.15	7.82	-0.928	0.000	0.167
87.75	-39.56	-7.23	0.00	-435.23	0.00	435.23	2761.71	1380.86	4636.01	2321.45	8.36	-0.962	0.000	0.202
90.00	-38.91	-7.17	0.00	-418.97	0.00	418.97	2740.07	1370.04	4543.51	2275.13	8.82	-0.990	0.000	0.198
95.00	-37.50	-7.00	0.00	-383.13	0.00	383.13	2690.94	1345.47	4339.45	2172.95	9.90	-1.059	0.000	0.190
100.00	-36.13	-6.84	0.00	-348.11	0.00	348.11	2640.38	1320.19	4137.62	2071.89	11.04	-1.128	0.000	0.182
105.00	-34.78	-6.67	0.00	-313.92	0.00	313.92	2588.38	1294.19	3938.22	1972.04	12.26	-1.195	0.000	0.173
110.00	-33.47	-6.51	0.00	-280.56	0.00	280.56	2534.95	1267.48	3741.44	1873.50	13.55	-1.262	0.000	0.163
115.00	-32.19	-6.34	0.00	-248.02	0.00	248.02	2480.09	1240.04	3547.48	1776.38	14.90	-1.326	0.000	0.153
120.00	-30.95	-6.17	0.00	-216.32	0.00	216.32	2423.79	1211.90	3356.53	1680.76	16.33	-1.389	0.000	0.141
123.25	-30.16	-6.06	0.00	-196.27	0.00	196.27	2386.43	1193.21	3234.12	1619.46	17.29	-1.428	0.000	0.134
125.00	-29.55	-6.00	0.00	-185.67	0.00	185.67	2366.06	1183.03	3168.79	1586.75	17.81	-1.449	0.000	0.130
127.50	-28.68	-5.91	0.00	-170.68	0.00	170.68	1766.99	883.49	2371.88	1187.70	18.58	-1.478	0.000	0.160
130.00	-28.15	-5.83	0.00	-155.91	0.00	155.91	1747.69	873.85	2306.16	1154.80	19.36	-1.506	0.000	0.151
135.00	-27.11	-5.67	0.00	-126.74	0.00	126.74	1708.02	854.01	2176.01	1089.62	20.97	-1.567	0.000	0.132
140.00	-26.11	-5.51	0.00	-98.39	0.00	98.39	1666.92	833.46	2047.71	1025.37	22.64	-1.621	0.000	0.112
145.00	-25.13	-5.34	0.00	-70.84	0.00	70.84	1624.39	812.19	1921.45	962.15	24.37	-1.665	0.000	0.089
147.00	-18.44	-4.09	0.00	-60.16	0.00	60.16	1606.97	803.49	1871.57	937.18	25.07	-1.681	0.000	0.076
150.00	-17.92	-3.99	0.00	-47.90	0.00	47.90	1580.42	790.21	1797.44	900.06	26.13	-1.701	0.000	0.065
155.00	-17.08	-3.82	0.00	-27.96	0.00	27.96	1535.02	767.51	1675.88	839.18	27.93	-1.726	0.000	0.044
157.00	-10.67	-2.12	0.00	-20.31	0.00	20.31	1516.46	758.23	1627.98	815.20	28.65	-1.734	0.000	0.032
160.00	-10.23	-2.02	0.00	-13.96	0.00	13.96	1488.18	744.09	1556.95	779.63	29.74	-1.742	0.000	0.025
165.00	-9.52	-1.86	0.00	-3.87	0.00	3.87	1439.00	719.50	1439.93	721.04	31.57	-1.749	0.000	0.012
167.00	-0.20	-0.07	0.00	-0.15	0.00	0.15	1413.06	706.53	1388.23	695.14	32.31	-1.750	0.000	0.000
168.00	0.00	-0.06	0.00	-0.08	0.00	0.08	1400.09	700.04	1362.73	682.38	32.67	-1.750	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.34		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1372.6	0.00	0.03	0.02	21.94	
10.00		1346.6	0.01	0.05	0.03	32.10	
15.00		1320.6	0.02	0.06	0.04	36.98	
20.00		1294.7	0.03	0.07	0.04	39.19	
25.00		1268.7	0.04	0.07	0.04	40.08	
30.00		1242.7	0.06	0.07	0.04	40.37	
35.00		1216.7	0.08	0.07	0.04	40.43	
40.00		1190.7	0.11	0.07	0.04	40.43	
42.75	Bot - Section 2	643.83	0.12	0.07	0.03	22.11	
45.00		974.82	0.14	0.07	0.03	33.77	
49.00	Top - Section 1	1708.8	0.16	0.07	0.03	59.93	
50.00		196.72	0.17	0.07	0.03	6.91	
55.00		970.25	0.20	0.06	0.02	34.17	
60.00		947.97	0.24	0.06	0.02	32.69	
65.00		925.69	0.28	0.05	0.01	30.07	
70.00		903.42	0.33	0.04	0.01	25.96	
75.00		881.14	0.38	0.03	0.01	20.08	
80.00		858.86	0.43	0.01	0.01	12.43	
82.50	Bot - Section 3	421.08	0.46	0.00	0.01	4.01	
85.00		767.56	0.48	-0.01	0.01	3.20	
87.75	Top - Section 2	832.52	0.52	-0.02	0.01	-1.66	
90.00		308.29	0.54	-0.03	0.01	-2.19	
95.00		671.62	0.60	-0.05	0.02	-12.00	
100.00		653.06	0.67	-0.08	0.02	-17.37	
105.00		634.49	0.74	-0.10	0.04	-20.43	
110.00		615.93	0.81	-0.11	0.06	-20.99	
115.00		597.36	0.89	-0.12	0.08	-19.14	
120.00		578.80	0.96	-0.12	0.11	-15.08	
123.25	Bot - Section 4	366.26	1.02	-0.11	0.14	-7.35	
125.00		351.80	1.05	-0.10	0.16	-5.69	
127.50	Top - Section 3	495.47	1.09	-0.08	0.18	-4.85	
130.00		218.61	1.13	-0.05	0.21	-0.53	
135.00		426.08	1.22	0.02	0.27	6.45	
140.00		411.22	1.31	0.14	0.35	15.05	
145.00		396.37	1.41	0.30	0.44	24.56	
147.00	Appurtenance(s)	2885.5	1.45	0.38	0.48	211.23	
150.00		227.13	1.51	0.52	0.55	20.73	
155.00		366.67	1.61	0.81	0.68	45.71	
157.00	Appurtenance(s)	2569.7	1.65	0.94	0.74	357.62	
160.00		209.31	1.71	1.18	0.84	33.94	
165.00		336.96	1.82	1.65	1.02	68.70	
167.00	Appurtenance(s)	3957.3	1.87	1.86	1.10	877.61	
168.00	Appurtenance(s)	99.42	1.89	1.98	1.14	22.96	
	Totals:	**38,663.8**				**2,134.1**	**Total Wind:** **36,319.4**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.34	**SA**	0.03	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-51.39	-2.27	0.00	-308.82	0.00	308.82	5501.01	2750.51	13262.9	6641.33		0.00	0.00	0.056
5.00	-49.68	-2.25	0.00	-297.49	0.00	297.49	5435.34	2717.67	12856.9	6438.04		0.01	-0.01	0.055
10.00	-47.89	-2.23	0.00	-286.22	0.00	286.22	5368.23	2684.11	12453.6	6236.09		0.03	-0.02	0.055
15.00	-46.14	-2.21	0.00	-275.05	0.00	275.05	5299.69	2649.84	12053.2	6035.57		0.06	-0.04	0.054
20.00	-44.42	-2.17	0.00	-264.03	0.00	264.03	5229.71	2614.86	11655.8	5836.57		0.10	-0.05	0.054
25.00	-42.73	-2.14	0.00	-253.16	0.00	253.16	5158.30	2579.15	11261.6	5639.20		0.16	-0.06	0.053
30.00	-41.08	-2.11	0.00	-242.44	0.00	242.44	5085.46	2542.73	10870.9	5443.55		0.24	-0.08	0.053
35.00	-39.45	-2.08	0.00	-231.89	0.00	231.89	5011.18	2505.59	10483.8	5249.72		0.32	-0.09	0.052
40.00	-37.85	-2.04	0.00	-221.51	0.00	221.51	4935.46	2467.73	10100.6	5057.82		0.43	-0.10	0.051
42.75	-36.99	-2.02	0.00	-215.90	0.00	215.90	4893.21	2446.61	9891.54	4953.12		0.49	-0.11	0.051
45.00	-35.74	-1.99	0.00	-211.35	0.00	211.35	4858.32	2429.16	9721.41	4867.93		0.54	-0.12	0.051
49.00	-33.56	-1.93	0.00	-203.38	0.00	203.38	3959.59	1979.80	7922.06	3966.92		0.65	-0.13	0.060
50.00	-33.29	-1.93	0.00	-201.45	0.00	201.45	3948.01	1974.01	7862.92	3937.31		0.68	-0.13	0.060
55.00	-31.96	-1.90	0.00	-191.81	0.00	191.81	3889.26	1944.63	7568.72	3789.99		0.82	-0.15	0.059
60.00	-30.66	-1.87	0.00	-182.31	0.00	182.31	3829.07	1914.54	7277.15	3643.98		0.99	-0.17	0.058
65.00	-29.38	-1.85	0.00	-172.94	0.00	172.94	3767.45	1883.72	6988.40	3499.39		1.17	-0.18	0.057
70.00	-28.13	-1.83	0.00	-163.70	0.00	163.70	3704.39	1852.20	6702.67	3356.32		1.37	-0.20	0.056
75.00	-26.91	-1.81	0.00	-154.57	0.00	154.57	3639.90	1819.95	6420.16	3214.85		1.59	-0.22	0.055
80.00	-25.71	-1.80	0.00	-145.52	0.00	145.52	3573.98	1786.99	6141.06	3075.10		1.83	-0.24	0.055
82.50	-25.12	-1.80	0.00	-141.02	0.00	141.02	3540.48	1770.24	6002.85	3005.89		1.96	-0.25	0.054
85.00	-24.12	-1.79	0.00	-136.53	0.00	136.53	3506.62	1753.31	5865.57	2937.15		2.09	-0.25	0.053
87.75	-23.03	-1.79	0.00	-131.59	0.00	131.59	2761.71	1380.86	4636.01	2321.45		2.24	-0.26	0.065
90.00	-22.58	-1.80	0.00	-127.56	0.00	127.56	2740.07	1370.04	4543.51	2275.13		2.36	-0.27	0.064
95.00	-21.61	-1.80	0.00	-118.58	0.00	118.58	2690.94	1345.47	4339.45	2172.95		2.66	-0.29	0.063
100.00	-20.66	-1.80	0.00	-109.58	0.00	109.58	2640.38	1320.19	4137.62	2071.89		2.98	-0.32	0.061
105.00	-19.73	-1.80	0.00	-100.57	0.00	100.57	2588.38	1294.19	3938.22	1972.04		3.32	-0.34	0.059
110.00	-18.82	-1.81	0.00	-91.55	0.00	91.55	2534.95	1267.48	3741.44	1873.50		3.69	-0.36	0.056
115.00	-17.94	-1.81	0.00	-82.53	0.00	82.53	2480.09	1240.04	3547.48	1776.38		4.08	-0.38	0.054
120.00	-17.08	-1.81	0.00	-73.49	0.00	73.49	2423.79	1211.90	3356.53	1680.76		4.49	-0.40	0.051
123.25	-16.53	-1.80	0.00	-67.62	0.00	67.62	2386.43	1193.21	3234.12	1619.46		4.76	-0.41	0.049
125.00	-16.05	-1.80	0.00	-64.47	0.00	64.47	2366.06	1183.03	3168.79	1586.75		4.92	-0.42	0.047
127.50	-15.37	-1.80	0.00	-59.96	0.00	59.96	1766.99	883.49	2371.88	1187.70		5.14	-0.43	0.059
130.00	-15.03	-1.80	0.00	-55.45	0.00	55.45	1747.69	873.85	2306.16	1154.80		5.37	-0.44	0.057
135.00	-14.35	-1.80	0.00	-46.44	0.00	46.44	1708.02	854.01	2176.01	1089.62		5.84	-0.46	0.051
140.00	-13.69	-1.78	0.00	-37.45	0.00	37.45	1666.92	833.46	2047.71	1025.37		6.34	-0.48	0.045
145.00	-13.05	-1.75	0.00	-28.55	0.00	28.55	1624.39	812.19	1921.45	962.15		6.86	-0.50	0.038
147.00	-9.52	-1.51	0.00	-25.04	0.00	25.04	1606.97	803.49	1871.57	937.18		7.07	-0.51	0.033
150.00	-9.19	-1.49	0.00	-20.51	0.00	20.51	1580.42	790.21	1797.44	900.06		7.39	-0.52	0.029
155.00	-8.66	-1.44	0.00	-13.06	0.00	13.06	1535.02	767.51	1675.88	839.18		7.94	-0.53	0.021
157.00	-5.55	-1.05	0.00	-10.17	0.00	10.17	1516.46	758.23	1627.98	815.20		8.16	-0.53	0.016
160.00	-5.29	-1.02	0.00	-7.01	0.00	7.01	1488.18	744.09	1556.95	779.63		8.50	-0.53	0.013
165.00	-4.87	-0.95	0.00	-1.92	0.00	1.92	1439.00	719.50	1439.93	721.04		9.06	-0.54	0.006
167.00	-0.12	-0.02	0.00	-0.02	0.00	0.02	1413.06	706.53	1388.23	695.14		9.28	-0.54	0.000
168.00	0.00	-0.02	0.00	0.00	0.00	0.00	1400.09	700.04	1362.73	682.38		9.40	-0.54	0.000

Seismic Segment Forces (Factored)

Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 22

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.34		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1372.6	0.00	0.03	0.02	21.94	
10.00		1346.6	0.01	0.05	0.03	32.10	
15.00		1320.6	0.02	0.06	0.04	36.98	
20.00		1294.7	0.03	0.07	0.04	39.19	
25.00		1268.7	0.04	0.07	0.04	40.08	
30.00		1242.7	0.06	0.07	0.04	40.37	
35.00		1216.7	0.08	0.07	0.04	40.43	
40.00		1190.7	0.11	0.07	0.04	40.43	
42.75	Bot - Section 2	643.83	0.12	0.07	0.03	22.11	
45.00		974.82	0.14	0.07	0.03	33.77	
49.00	Top - Section 1	1708.8	0.16	0.07	0.03	59.93	
50.00		196.72	0.17	0.07	0.03	6.91	
55.00		970.25	0.20	0.06	0.02	34.17	
60.00		947.97	0.24	0.06	0.02	32.69	
65.00		925.69	0.28	0.05	0.01	30.07	
70.00		903.42	0.33	0.04	0.01	25.96	
75.00		881.14	0.38	0.03	0.01	20.08	
80.00		858.86	0.43	0.01	0.01	12.43	
82.50	Bot - Section 3	421.08	0.46	0.00	0.01	4.01	
85.00		767.56	0.48	-0.01	0.01	3.20	
87.75	Top - Section 2	832.52	0.52	-0.02	0.01	-1.66	
90.00		308.29	0.54	-0.03	0.01	-2.19	
95.00		671.62	0.60	-0.05	0.02	-12.00	
100.00		653.06	0.67	-0.08	0.02	-17.37	
105.00		634.49	0.74	-0.10	0.04	-20.43	
110.00		615.93	0.81	-0.11	0.06	-20.99	
115.00		597.36	0.89	-0.12	0.08	-19.14	
120.00		578.80	0.96	-0.12	0.11	-15.08	
123.25	Bot - Section 4	366.26	1.02	-0.11	0.14	-7.35	
125.00		351.80	1.05	-0.10	0.16	-5.69	
127.50	Top - Section 3	495.47	1.09	-0.08	0.18	-4.85	
130.00		218.61	1.13	-0.05	0.21	-0.53	
135.00		426.08	1.22	0.02	0.27	6.45	
140.00		411.22	1.31	0.14	0.35	15.05	
145.00		396.37	1.41	0.30	0.44	24.56	
147.00	Appurtenance(s)	2885.5	1.45	0.38	0.48	211.23	
150.00		227.13	1.51	0.52	0.55	20.73	
155.00		366.67	1.61	0.81	0.68	45.71	
157.00	Appurtenance(s)	2569.7	1.65	0.94	0.74	357.62	
160.00		209.31	1.71	1.18	0.84	33.94	
165.00		336.96	1.82	1.65	1.02	68.70	
167.00	Appurtenance(s)	3957.3	1.87	1.86	1.10	877.61	
168.00	Appurtenance(s)	99.42	1.89	1.98	1.14	22.96	
	Totals:	**38,663.8**				**2,134.1**	**Total Wind:** **36,319.4**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 23	

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.34	**SA**	0.03			**Seismic Importance Factor**	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-38.54	-2.27	0.00	-305.09	0.00	305.09	5501.01	2750.51	13262.9	6641.33		0.00	0.00	0.053
5.00	-37.26	-2.25	0.00	-293.77	0.00	293.77	5435.34	2717.67	12856.9	6438.04		0.01	-0.01	0.052
10.00	-35.92	-2.23	0.00	-282.51	0.00	282.51	5368.23	2684.11	12453.6	6236.09		0.03	-0.02	0.052
15.00	-34.61	-2.20	0.00	-271.38	0.00	271.38	5299.69	2649.84	12053.2	6035.57		0.06	-0.04	0.051
20.00	-33.32	-2.16	0.00	-260.40	0.00	260.40	5229.71	2614.86	11655.8	5836.57		0.10	-0.05	0.051
25.00	-32.05	-2.13	0.00	-249.59	0.00	249.59	5158.30	2579.15	11261.6	5639.20		0.16	-0.06	0.050
30.00	-30.81	-2.09	0.00	-238.94	0.00	238.94	5085.46	2542.73	10870.9	5443.55		0.23	-0.08	0.050
35.00	-29.59	-2.06	0.00	-228.47	0.00	228.47	5011.18	2505.59	10483.8	5249.72		0.32	-0.09	0.049
40.00	-28.39	-2.02	0.00	-218.17	0.00	218.17	4935.46	2467.73	10100.6	5057.82		0.42	-0.10	0.049
42.75	-27.74	-2.00	0.00	-212.61	0.00	212.61	4893.21	2446.61	9891.54	4953.12		0.48	-0.11	0.049
45.00	-26.81	-1.97	0.00	-208.10	0.00	208.10	4858.32	2429.16	9721.41	4867.93		0.54	-0.12	0.048
49.00	-25.17	-1.91	0.00	-200.22	0.00	200.22	3959.59	1979.80	7922.06	3966.92		0.64	-0.13	0.057
50.00	-24.97	-1.91	0.00	-198.31	0.00	198.31	3948.01	1974.01	7862.92	3937.31		0.67	-0.13	0.057
55.00	-23.97	-1.88	0.00	-188.77	0.00	188.77	3889.26	1944.63	7568.72	3789.99		0.81	-0.15	0.056
60.00	-22.99	-1.85	0.00	-179.39	0.00	179.39	3829.07	1914.54	7277.15	3643.98		0.98	-0.16	0.055
65.00	-22.03	-1.82	0.00	-170.14	0.00	170.14	3767.45	1883.72	6988.40	3499.39		1.16	-0.18	0.054
70.00	-21.10	-1.80	0.00	-161.03	0.00	161.03	3704.39	1852.20	6702.67	3356.32		1.35	-0.20	0.054
75.00	-20.18	-1.78	0.00	-152.03	0.00	152.03	3639.90	1819.95	6420.16	3214.85		1.57	-0.21	0.053
80.00	-19.28	-1.77	0.00	-143.12	0.00	143.12	3573.98	1786.99	6141.06	3075.10		1.80	-0.23	0.052
82.50	-18.84	-1.77	0.00	-138.69	0.00	138.69	3540.48	1770.24	6002.85	3005.89		1.93	-0.24	0.051
85.00	-18.09	-1.76	0.00	-134.27	0.00	134.27	3506.62	1753.31	5865.57	2937.15		2.06	-0.25	0.051
87.75	-17.27	-1.76	0.00	-129.42	0.00	129.42	2761.71	1380.86	4636.01	2321.45		2.21	-0.26	0.062
90.00	-16.93	-1.77	0.00	-125.45	0.00	125.45	2740.07	1370.04	4543.51	2275.13		2.33	-0.27	0.061
95.00	-16.20	-1.77	0.00	-116.61	0.00	116.61	2690.94	1345.47	4339.45	2172.95		2.62	-0.29	0.060
100.00	-15.49	-1.77	0.00	-107.77	0.00	107.77	2640.38	1320.19	4137.62	2071.89		2.94	-0.31	0.058
105.00	-14.79	-1.77	0.00	-98.91	0.00	98.91	2588.38	1294.19	3938.22	1972.04		3.28	-0.33	0.056
110.00	-14.12	-1.77	0.00	-90.05	0.00	90.05	2534.95	1267.48	3741.44	1873.50		3.63	-0.35	0.054
115.00	-13.45	-1.77	0.00	-81.18	0.00	81.18	2480.09	1240.04	3547.48	1776.38		4.02	-0.37	0.051
120.00	-12.81	-1.77	0.00	-72.31	0.00	72.31	2423.79	1211.90	3356.53	1680.76		4.42	-0.39	0.048
123.25	-12.40	-1.77	0.00	-66.54	0.00	66.54	2386.43	1193.21	3234.12	1619.46		4.69	-0.41	0.046
125.00	-12.04	-1.77	0.00	-63.44	0.00	63.44	2366.06	1183.03	3168.79	1586.75		4.84	-0.42	0.045
127.50	-11.53	-1.77	0.00	-59.01	0.00	59.01	1766.99	883.49	2371.88	1187.70		5.06	-0.43	0.056
130.00	-11.27	-1.77	0.00	-54.58	0.00	54.58	1747.69	873.85	2306.16	1154.80		5.29	-0.44	0.054
135.00	-10.76	-1.77	0.00	-45.72	0.00	45.72	1708.02	854.01	2176.01	1089.62		5.76	-0.46	0.048
140.00	-10.26	-1.75	0.00	-36.89	0.00	36.89	1666.92	833.46	2047.71	1025.37		6.25	-0.48	0.042
145.00	-9.78	-1.72	0.00	-28.14	0.00	28.14	1624.39	812.19	1921.45	962.15		6.75	-0.49	0.035
147.00	-7.14	-1.49	0.00	-24.70	0.00	24.70	1606.97	803.49	1871.57	937.18		6.96	-0.50	0.031
150.00	-6.89	-1.47	0.00	-20.23	0.00	20.23	1580.42	790.21	1797.44	900.06		7.28	-0.51	0.027
155.00	-6.49	-1.42	0.00	-12.88	0.00	12.88	1535.02	767.51	1675.88	839.18		7.82	-0.52	0.020
157.00	-4.16	-1.04	0.00	-10.04	0.00	10.04	1516.46	758.23	1627.98	815.20		8.04	-0.52	0.015
160.00	-3.96	-1.01	0.00	-6.92	0.00	6.92	1488.18	744.09	1556.95	779.63		8.37	-0.53	0.012
165.00	-3.65	-0.93	0.00	-1.89	0.00	1.89	1439.00	719.50	1439.93	721.04		8.92	-0.53	0.005
167.00	-0.09	-0.02	0.00	-0.02	0.00	0.02	1413.06	706.53	1388.23	695.14		9.14	-0.53	0.000
168.00	0.00	-0.02	0.00	0.00	0.00	0.00	1400.09	700.04	1362.73	682.38		9.25	-0.53	0.000

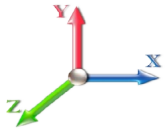
Wind Loading - Shaft

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	276.59	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	271.44	0.650	0.000	5.00	24.768	16.10	131.8	0.0	1372.7
10.00		1.00	0.85	7.442	8.19	266.29	0.650	0.000	5.00	24.302	15.80	129.3	0.0	1346.7
15.00		1.00	0.85	7.442	8.19	261.14	0.650	0.000	5.00	23.837	15.49	126.8	0.0	1320.7
20.00		1.00	0.90	7.896	8.69	263.69	0.650	0.000	5.00	23.372	15.19	132.0	0.0	1294.7
25.00		1.00	0.95	8.276	9.10	264.53	0.650	0.000	5.00	22.906	14.89	135.5	0.0	1268.7
30.00		1.00	0.98	8.600	9.46	264.12	0.650	0.000	5.00	22.441	14.59	138.0	0.0	1242.7
35.00		1.00	1.01	8.883	9.77	262.81	0.650	0.000	5.00	21.975	14.28	139.6	0.0	1216.7
40.00		1.00	1.04	9.137	10.05	260.83	0.650	0.000	5.00	21.510	13.98	140.5	0.0	1190.7
42.75	Bot - Section 2	1.00	1.06	9.266	10.19	259.50	0.650	0.000	2.75	11.632	7.56	77.1	0.0	643.8
45.00		1.00	1.07	9.366	10.30	258.30	0.650	0.000	2.25	9.555	6.21	64.0	0.0	974.8
49.00	Top - Section 1	1.00	1.09	9.536	10.49	255.97	0.650	0.000	4.00	16.754	10.89	114.2	0.0	1708.9
50.00		1.00	1.09	9.576	10.53	259.33	0.650	0.000	1.00	4.142	2.69	28.4	0.0	196.7
55.00		1.00	1.12	9.770	10.75	256.04	0.650	0.000	5.00	20.431	13.28	142.7	0.0	970.2
60.00		1.00	1.14	9.951	10.95	252.44	0.650	0.000	5.00	19.965	12.98	142.1	0.0	948.0
65.00		1.00	1.16	10.120	11.13	248.57	0.650	0.000	5.00	19.500	12.67	141.1	0.0	925.7
70.00		1.00	1.17	10.279	11.31	244.47	0.650	0.000	5.00	19.034	12.37	139.9	0.0	903.4
75.00		1.00	1.19	10.430	11.47	240.15	0.650	0.000	5.00	18.569	12.07	138.5	0.0	881.1
80.00		1.00	1.21	10.572	11.63	235.65	0.650	0.000	5.00	18.103	11.77	136.8	0.0	858.9
82.50	Bot - Section 3	1.00	1.22	10.641	11.71	233.34	0.650	0.000	2.50	8.877	5.77	67.5	0.0	421.1
85.00		1.00	1.22	10.708	11.78	230.98	0.650	0.000	2.50	8.893	5.78	68.1	0.0	767.6
87.75	Top - Section 2	1.00	1.23	10.780	11.86	228.35	0.650	0.000	2.75	9.648	6.27	74.4	0.0	832.5
90.00		1.00	1.24	10.838	11.92	229.69	0.650	0.000	2.25	7.789	5.06	60.4	0.0	308.3
95.00		1.00	1.25	10.962	12.06	224.75	0.650	0.000	5.00	16.971	11.03	133.0	0.0	671.6
100.00		1.00	1.27	11.081	12.19	219.69	0.650	0.000	5.00	16.506	10.73	130.8	0.0	653.1
105.00		1.00	1.28	11.195	12.31	214.50	0.650	0.000	5.00	16.040	10.43	128.4	0.0	634.5
110.00		1.00	1.29	11.305	12.44	209.21	0.650	0.000	5.00	15.575	10.12	125.9	0.0	615.9
115.00		1.00	1.30	11.412	12.55	203.81	0.650	0.000	5.00	15.109	9.82	123.3	0.0	597.4
120.00		1.00	1.32	11.514	12.67	198.32	0.650	0.000	5.00	14.644	9.52	120.6	0.0	578.8
123.25	Bot - Section 4	1.00	1.32	11.579	12.74	194.70	0.650	0.000	3.25	9.269	6.02	76.7	0.0	366.3
125.00		1.00	1.33	11.614	12.78	192.74	0.650	0.000	1.75	4.984	3.24	41.4	0.0	351.8
127.50	Top - Section 3	1.00	1.33	11.662	12.83	189.92	0.650	0.000	2.50	7.020	4.56	58.5	0.0	495.5
130.00		1.00	1.34	11.710	12.88	190.01	0.650	0.000	2.50	6.904	4.49	57.8	0.0	218.6
135.00		1.00	1.35	11.803	12.98	184.29	0.650	0.000	5.00	13.459	8.75	113.6	0.0	426.1
140.00		1.00	1.36	11.894	13.08	178.48	0.650	0.000	5.00	12.994	8.45	110.5	0.0	411.2
145.00		1.00	1.37	11.982	13.18	172.61	0.650	0.000	5.00	12.528	8.14	107.3	0.0	396.4
147.00	Appurtenance(s)	1.00	1.37	12.017	13.22	170.24	0.650	0.000	2.00	4.881	3.17	41.9	0.0	154.4
150.00		1.00	1.38	12.068	13.27	166.67	0.650	0.000	3.00	7.182	4.67	62.0	0.0	227.1
155.00		1.00	1.39	12.152	13.37	160.66	0.650	0.000	5.00	11.597	7.54	100.8	0.0	366.7
157.00	Appurtenance(s)	1.00	1.39	12.185	13.40	158.24	0.650	0.000	2.00	4.509	2.93	39.3	0.0	142.5
160.00		1.00	1.40	12.233	13.46	154.60	0.650	0.000	3.00	6.623	4.31	57.9	0.0	209.3
165.00		1.00	1.41	12.313	13.54	148.48	0.650	0.000	5.00	10.666	6.93	93.9	0.0	337.0
167.00	Appurtenance(s)	1.00	1.41	12.344	13.58	146.01	0.650	0.000	2.00	4.136	2.69	36.5	0.0	130.6
168.00	Appurtenance(s)	1.00	1.41	12.360	13.60	144.78	0.650	0.000	1.00	2.040	1.33	18.0	0.0	64.4
								Totals:	**168.00**			**4,246.7**		**29,643.8**

Discrete Appurtenance Forces

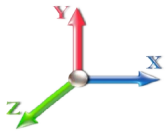
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	168.00	Lightning Rod	1	12.398	13.638	1.00	1.00	1.05	35.00	0.000	2.500	14.32	0.00	35.80
2	167.00	RFS APXVTM14-C-I20	3	12.344	13.578	0.62	0.80	11.87	168.00	0.000	0.000	161.16	0.00	0.00
3	167.00	Commscope	3	12.344	13.578	0.58	0.80	21.50	254.10	0.000	0.000	291.90	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	12.344	13.578	0.54	0.80	3.83	180.00	0.000	0.000	51.97	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	12.344	13.578	0.54	0.80	6.85	318.00	0.000	0.000	93.01	0.00	0.00
6	167.00	ALU TD-RRH8x20-25	3	12.344	13.578	0.54	0.80	6.51	210.00	0.000	0.000	88.43	0.00	0.00
7	167.00	Reinforcement Kit (Site	1	12.344	13.578	0.75	0.75	7.13	464.91	0.000	0.000	96.75	0.00	0.00
8	167.00	Low Profile Platform	1	12.344	13.578	1.00	1.00	22.00	1500.00	0.000	0.000	298.73	0.00	0.00
9	167.00	V-Brace Kit (Site Pro	1	12.344	13.578	0.75	0.75	5.03	230.00	0.000	0.000	68.23	0.00	0.00
10	167.00	Pipe2.0STD x 15'	1	12.344	13.578	0.75	0.75	5.06	261.72	0.000	0.000	68.74	0.00	0.00
11	167.00	Pipe2.0STD Mount Pipes	6	12.344	13.578	0.64	0.80	5.49	240.00	0.000	0.000	74.56	0.00	0.00
12	157.00	Low Profile Platform	1	12.185	13.403	1.00	1.00	22.00	1500.00	0.000	0.000	294.87	0.00	0.00
13	157.00	Rfs DB-T1-6Z-8AB-0Z	1	12.185	13.403	0.54	0.80	2.57	44.00	0.000	0.000	34.48	0.00	0.00
14	157.00	Alcatel Lucent	3	12.185	13.403	0.54	0.80	5.63	180.00	0.000	0.000	75.43	0.00	0.00
15	157.00	Commscope	3	12.185	13.403	0.66	0.80	16.27	116.40	0.000	0.000	218.13	0.00	0.00
16	157.00	Commscope	6	12.185	13.403	0.64	0.80	32.76	244.80	0.000	0.000	439.02	0.00	0.00
17	157.00	Amphenol	3	12.185	13.403	0.61	0.80	24.15	162.00	0.000	0.000	323.68	0.00	0.00
18	157.00	Alcatel Lucent	3	12.185	13.403	0.54	0.80	5.63	180.00	0.000	0.000	75.43	0.00	0.00
19	147.00	Allen Telecom	3	12.017	13.219	0.48	0.80	0.78	52.50	0.000	0.000	10.28	0.00	0.00
20	147.00	RFS	3	12.017	13.219	0.62	0.80	6.78	56.10	0.000	0.000	89.58	0.00	0.00
21	147.00	RFS	3	12.017	13.219	0.58	0.80	34.97	384.00	0.000	0.000	462.32	0.00	0.00
22	147.00	Ericsson KRY 112 489/2	3	12.017	13.219	0.48	0.80	0.81	46.20	0.000	0.000	10.66	0.00	0.00
23	147.00	Low Profile Platform	1	12.017	13.219	1.00	1.00	22.00	1500.00	0.000	0.000	290.81	0.00	0.00
24	147.00	Ericsson Radio 4449	3	12.017	13.219	0.54	0.80	2.62	222.00	0.000	0.000	34.65	0.00	0.00
25	147.00	Kathrein 782 11056 Bias	3	12.017	13.219	0.48	0.80	0.22	5.40	0.000	0.000	2.86	0.00	0.00
26	147.00	Reinforcement Kit (Site	1	12.017	13.219	0.75	0.75	7.13	464.91	0.000	0.000	94.18	0.00	0.00
							Totals:		**9,020.04**			**3,764.16**		

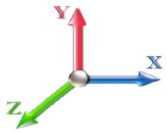
Total Applied Force Summary

Structure:	CT02217-S-SBA		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		131.79	1427.99	0.00	0.00
10.00		129.31	1484.98	0.00	0.00
15.00		126.84	1458.99	0.00	0.00
20.00		131.95	1433.00	0.00	0.00
25.00		135.54	1407.01	0.00	0.00
30.00		137.98	1381.02	0.00	0.00
35.00		139.58	1355.03	0.00	0.00
40.00		140.52	1329.04	0.00	0.00
42.75		77.06	719.89	0.00	0.00
45.00		63.99	1037.06	0.00	0.00
49.00		114.23	1819.53	0.00	0.00
50.00		28.36	224.38	0.00	0.00
55.00		142.72	1108.55	0.00	0.00
60.00		142.05	1086.27	0.00	0.00
65.00		141.10	1063.99	0.00	0.00
70.00		139.89	1041.72	0.00	0.00
75.00		138.47	1019.44	0.00	0.00
80.00		136.85	997.16	0.00	0.00
82.50		67.54	490.23	0.00	0.00
85.00		68.09	836.71	0.00	0.00
87.75		74.36	908.59	0.00	0.00
90.00		60.36	370.52	0.00	0.00
95.00		133.01	809.92	0.00	0.00
100.00		130.77	791.36	0.00	0.00
105.00		128.40	772.79	0.00	0.00
110.00		125.90	754.23	0.00	0.00
115.00		123.28	735.66	0.00	0.00
120.00		120.56	717.10	0.00	0.00
123.25		76.74	456.16	0.00	0.00
125.00		41.38	400.21	0.00	0.00
127.50		58.54	564.62	0.00	0.00
130.00		57.81	287.76	0.00	0.00
135.00		113.59	564.38	0.00	0.00
140.00		110.50	549.52	0.00	0.00
145.00		107.33	534.67	0.00	0.00
147.00	(20) attachments	1037.27	2940.82	0.00	0.00
150.00		61.97	272.67	0.00	0.00
155.00		100.76	442.57	0.00	0.00
157.00	(20) attachments	1500.32	2600.07	0.00	0.00
160.00		57.93	217.23	0.00	0.00
165.00		93.90	350.16	0.00	0.00
167.00	(28) attachments	1329.97	3962.64	0.00	0.00
168.00	(1) attachments	32.35	99.42	0.00	35.80
	Totals:	**8,010.85**	**42,825.04**	**0.00**	**35.80**

Calculated Forces

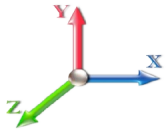
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-42.82	-8.03	0.00	-975.22	0.00	975.22	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.155
5.00	-41.39	-7.92	0.00	-935.10	0.00	935.10	5435.34	2717.67	12856.9	6438.04	0.02	-0.038	0.000	0.153
10.00	-39.90	-7.82	0.00	-895.49	0.00	895.49	5368.23	2684.11	12453.6	6236.09	0.08	-0.077	0.000	0.151
15.00	-38.43	-7.71	0.00	-856.41	0.00	856.41	5299.69	2649.84	12053.2	6035.57	0.18	-0.117	0.000	0.149
20.00	-37.00	-7.61	0.00	-817.84	0.00	817.84	5229.71	2614.86	11655.8	5836.57	0.33	-0.157	0.000	0.147
25.00	-35.58	-7.49	0.00	-779.81	0.00	779.81	5158.30	2579.15	11261.6	5639.20	0.51	-0.197	0.000	0.145
30.00	-34.20	-7.37	0.00	-742.36	0.00	742.36	5085.46	2542.73	10870.9	5443.55	0.74	-0.238	0.000	0.143
35.00	-32.84	-7.25	0.00	-705.50	0.00	705.50	5011.18	2505.59	10483.8	5249.72	1.01	-0.280	0.000	0.141
40.00	-31.51	-7.12	0.00	-669.25	0.00	669.25	4935.46	2467.73	10100.6	5057.82	1.33	-0.322	0.000	0.139
42.75	-30.78	-7.05	0.00	-649.66	0.00	649.66	4893.21	2446.61	9891.54	4953.12	1.52	-0.346	0.000	0.137
45.00	-29.74	-7.00	0.00	-633.80	0.00	633.80	4858.32	2429.16	9721.41	4867.93	1.69	-0.366	0.000	0.136
49.00	-27.92	-6.88	0.00	-605.82	0.00	605.82	3959.59	1979.80	7922.06	3966.92	2.01	-0.400	0.000	0.160
50.00	-27.70	-6.86	0.00	-598.94	0.00	598.94	3948.01	1974.01	7862.92	3937.31	2.10	-0.409	0.000	0.159
55.00	-26.58	-6.73	0.00	-564.62	0.00	564.62	3889.26	1944.63	7568.72	3789.99	2.55	-0.458	0.000	0.156
60.00	-25.49	-6.61	0.00	-530.95	0.00	530.95	3829.07	1914.54	7277.15	3643.98	3.06	-0.506	0.000	0.152
65.00	-24.42	-6.48	0.00	-497.92	0.00	497.92	3767.45	1883.72	6988.40	3499.39	3.61	-0.555	0.000	0.149
70.00	-23.38	-6.35	0.00	-465.55	0.00	465.55	3704.39	1852.20	6702.67	3356.32	4.22	-0.605	0.000	0.145
75.00	-22.35	-6.21	0.00	-433.82	0.00	433.82	3639.90	1819.95	6420.16	3214.85	4.88	-0.655	0.000	0.141
80.00	-21.36	-6.08	0.00	-402.75	0.00	402.75	3573.98	1786.99	6141.06	3075.10	5.60	-0.705	0.000	0.137
82.50	-20.86	-6.02	0.00	-387.55	0.00	387.55	3540.48	1770.24	6002.85	3005.89	5.97	-0.730	0.000	0.135
85.00	-20.02	-5.95	0.00	-372.51	0.00	372.51	3506.62	1753.31	5865.57	2937.15	6.36	-0.756	0.000	0.133
87.75	-19.11	-5.87	0.00	-356.16	0.00	356.16	2761.71	1380.86	4636.01	2321.45	6.80	-0.784	0.000	0.160
90.00	-18.74	-5.82	0.00	-342.95	0.00	342.95	2740.07	1370.04	4543.51	2275.13	7.18	-0.806	0.000	0.158
95.00	-17.93	-5.69	0.00	-313.88	0.00	313.88	2690.94	1345.47	4339.45	2172.95	8.05	-0.863	0.000	0.151
100.00	-17.13	-5.56	0.00	-285.43	0.00	285.43	2640.38	1320.19	4137.62	2071.89	8.99	-0.919	0.000	0.144
105.00	-16.36	-5.44	0.00	-257.62	0.00	257.62	2588.38	1294.19	3938.22	1972.04	9.98	-0.975	0.000	0.137
110.00	-15.60	-5.31	0.00	-230.44	0.00	230.44	2534.95	1267.48	3741.44	1873.50	11.03	-1.029	0.000	0.129
115.00	-14.86	-5.19	0.00	-203.87	0.00	203.87	2480.09	1240.04	3547.48	1776.38	12.14	-1.083	0.000	0.121
120.00	-14.14	-5.07	0.00	-177.93	0.00	177.93	2423.79	1211.90	3356.53	1680.76	13.30	-1.134	0.000	0.112
123.25	-13.69	-4.99	0.00	-161.47	0.00	161.47	2386.43	1193.21	3234.12	1619.46	14.08	-1.166	0.000	0.105
125.00	-13.29	-4.94	0.00	-152.74	0.00	152.74	2366.06	1183.03	3168.79	1586.75	14.51	-1.184	0.000	0.102
127.50	-12.72	-4.88	0.00	-140.39	0.00	140.39	1766.99	883.49	2371.88	1187.70	15.14	-1.208	0.000	0.125
130.00	-12.43	-4.82	0.00	-128.20	0.00	128.20	1747.69	873.85	2306.16	1154.80	15.78	-1.231	0.000	0.118
135.00	-11.87	-4.70	0.00	-104.11	0.00	104.11	1708.02	854.01	2176.01	1089.62	17.10	-1.280	0.000	0.103
140.00	-11.32	-4.59	0.00	-80.59	0.00	80.59	1666.92	833.46	2047.71	1025.37	18.46	-1.324	0.000	0.085
145.00	-10.78	-4.47	0.00	-57.65	0.00	57.65	1624.39	812.19	1921.45	962.15	19.87	-1.361	0.000	0.067
147.00	-7.87	-3.37	0.00	-48.70	0.00	48.70	1606.97	803.49	1871.57	937.18	20.44	-1.374	0.000	0.057
150.00	-7.59	-3.30	0.00	-38.60	0.00	38.60	1580.42	790.21	1797.44	900.06	21.31	-1.390	0.000	0.048
155.00	-7.15	-3.19	0.00	-22.09	0.00	22.09	1535.02	767.51	1675.88	839.18	22.78	-1.410	0.000	0.031
157.00	-4.59	-1.63	0.00	-15.71	0.00	15.71	1516.46	758.23	1627.98	815.20	23.37	-1.416	0.000	0.022
160.00	-4.37	-1.57	0.00	-10.82	0.00	10.82	1488.18	744.09	1556.95	779.63	24.26	-1.422	0.000	0.017
165.00	-4.03	-1.46	0.00	-3.00	0.00	3.00	1439.00	719.50	1439.93	721.04	25.76	-1.428	0.000	0.007
167.00	-0.10	-0.03	0.00	-0.07	0.00	0.07	1413.06	706.53	1388.23	695.14	26.35	-1.429	0.000	0.000
168.00	0.00	-0.03	0.00	-0.04	0.00	0.04	1400.09	700.04	1362.73	682.38	26.65	-1.429	0.000	0.000

Final Analysis Summary

Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	7/5/2019	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	36.4	0.00	51.33	0.00	0.00	4446.83
0.9D + 1.6W 101 mph Wind	36.4	0.00	38.49	0.00	0.00	4397.49
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.9	0.00	76.47	0.00	0.00	1199.88
1.2D + 1.0E	2.3	0.00	51.39	0.00	0.00	308.82
0.9D + 1.0E	2.3	0.00	38.54	0.00	0.00	305.09
1.0D + 1.0W 60 mph Wind	8.0	0.00	42.82	0.00	0.00	975.22

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-21.38	-26.81	0.00	-1627.0	0.00	-1627.0	2761.71	1380.8	4636.01	2321.45	87.75	0.709
0.9D + 1.6W 101 mph Wind	-15.66	-26.43	0.00	-1599.3	0.00	-1599.3	2761.71	1380.8	4636.01	2321.45	87.75	0.695
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-39.56	-7.23	0.00	-435.23	0.00	-435.23	2761.71	1380.8	4636.01	2321.45	87.75	0.202
1.2D + 1.0E	-23.03	-1.79	0.00	-131.59	0.00	-131.59	2761.71	1380.8	4636.01	2321.45	87.75	0.065
0.9D + 1.0E	-17.27	-1.76	0.00	-129.42	0.00	-129.42	2761.71	1380.8	4636.01	2321.45	87.75	0.062
1.0D + 1.0W 60 mph Wind	-19.11	-5.87	0.00	-356.16	0.00	-356.16	2761.71	1380.8	4636.01	2321.45	87.75	0.160

Base Plate Summary

Structure:	CT02217-S-SB		**Code:**	EIA/TIA-222-G	7/5/2019
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	4750.00
Axial (kip):	38.00
Shear (kip):	37.50
Analysis	
Moment (kip-ft):	4446.83
Axial (kip):	76.47
Shear (kip):	36.40
Moment Design %:	93.62

Base Plate	
Yield (ksi):	50.00
Width (in):	65.00
Style:	Clipped
Polygon Sides:	0.00
Clip Length (in):	13.00
Effective Len (in):	9.15
Moment (kip-in):	571.89
Allow Stress (ksi):	67.50
Applied Stress (ksi):	0.00
Stress Ratio:	0.62

Anchor Bolts	
Bolt Circle:	66.00
Number Bolts:	20.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	165.53
Allowable (kip):	260.00
Ratio:	0.65
Tension	
Force (kip):	157.88
Allowable (kip):	260.00
Ratio:	0.62

Monopole Mat Foundation Design

			Date: 7/5/2019
Customer Name:	T-Mobile	**EIA/TIA Standard:**	EIA-222-G
Site Name:	Pomfret School	**Structure Height (Ft.):**	168
Site Number:	CT02217-S-SBA	**Engineer Name:**	W. Velez
Engr. Number:	80482	**Engineer Login ID:**	

Foundation Info Obtained from: Mapping Operation

Structure Type: Monopole

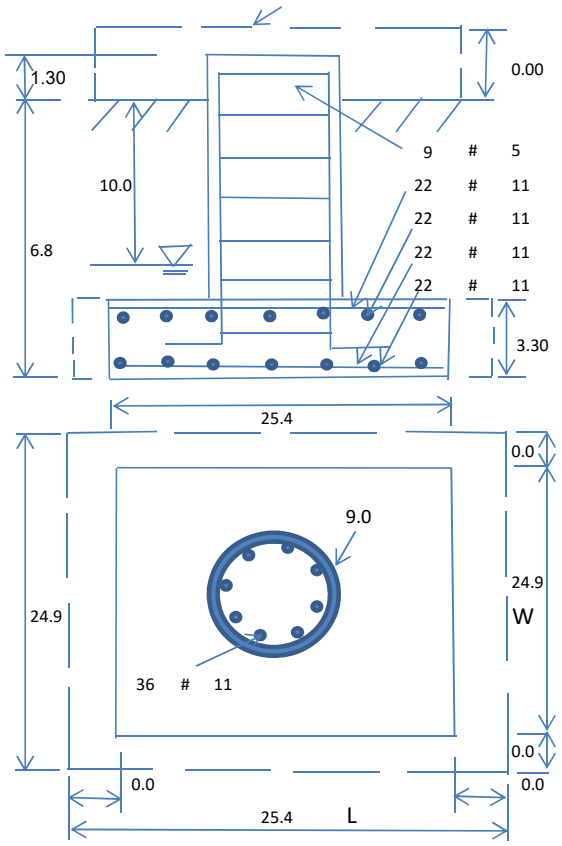
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	51.3	Shear Force (Kips):	36.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4446.8
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	9.0	Depth of Base BG (ft.):	6.8
Pier Height A. G. (ft.):	1.30	Thickness of Pad (ft):	3.30
Length of Pad (ft.):	25.4	Width of Pad (ft.):	24.9
Final Length of pad (ft)	25.4	Final width of pad (ft):	24.9



Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	11	
Concrete Cover (in.):	5	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	57.6	Pcf		
Water Table B.G.S. (ft):	10.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:			1.00	

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	1990.95	Total Dry Soil Weight (Kips):	238.91
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	238.91	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2392.48	Total Dry Concrete Weight (Kips):	358.87
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	358.87	Total Vertical Load on Base (Kips):	649.12

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	3181	<	Allowable Factored Soil Bearing (psf):	22500	0.14	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7337.3	>	Design Factored Momont (kips-ft):	4514	0.62	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.63	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90		Strength reduction factor (Shear):	0.75		
Strength reduction factor (Axial compresion):	0.65		Wind Load Factor on Concrete Design:	1.00		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.56		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	12145.2	>	Design Factored Moment (Mu, Kips-F	4621.6	0.38	OK!
Calculated Shear Capacity (Kips):	1136.9	>	Design Factored Shear (Kips):	36.4	0.03	OK!
Calculated Tension Capacity (Tn, Kips):	3032.6	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	16097.2	>	Design Factored Axial Load (Pu Kips):	51.3	0.00	OK!
Moment & Axial Strength Combination:	0.38	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.006		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	980.6	>	One-Way Factored Shear (L-D. Kips):	244.4	0.25	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	961.3	>	One-Way Factored Shear (W-D., Kips)	233.0	0.24	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	807.5	>	One-Way Factored Shear (C-C, Kips):	232.7	0.29	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0034	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0033		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	5080.9	>	Moment at Bottom (L-Dir. K-Ft):	1223.2	0.24	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	5084.0	>	Moment at Bottom (W-Dir. K-Ft):	1223.2	0.24	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	7113.5	>	Moment at Bottom (C-C Dir. K-Ft):	1729.8	0.24	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0034	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0033		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	5080.9	>	Moment at the top (L-Dir K-Ft):	542.2	0.11	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	5084.0	>	Moment at the top (W-Dir K-Ft):	542.2	0.11	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	7113.5	>	Moment at the top (C-C Dir. K-Ft):	527.9	0.07	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1778.7	k-ft.	Max. factored shear stress v_{u_CD}:		2.0	Psi
Max. factored shear stress v_{u_AB}:	7.5	Psi	Factored shear Strength ϕv_n:		189.7	Psi
Max. factored shear stress v_u:	7.5	Psi	Check Usage of Punching Shear Capacity:		0.04	OK!

EXHIBIT 8

TES
Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Antenna Mount Analysis Report

Existing 168-Ft Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT02217-S-SBA / Pomfret School

Customer Site Name: Pomfret School

Carrier Name: T-Mobile (App#: 116895-1)

Carrier Site ID / Name: CT11525A / Pomfret School

Site Location: 398 Pomfret Street

Pomfret, Connecticut

Windham County

Latitude: 41.890094

Longitude: -71.955008

7/23/19

Analysis Result:

Max Structural Usage: 39.7% [Pass]

Report Prepared By : Mohammad Khanfar

Introduction

The purpose of this report is to summarize the analysis results on the Low Profile Platform at 147.00' elevation to support the proposed antenna configuration. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Mount Drawings	Mount info from SBA Application #: 116895, v1
Antenna Loading	SBA Application #: 116895, v1 dated 07/1/2019
Modification Drawings	N/A

Analysis Criteria

Basic Wind Speed Used in the Analysis: V_{ULT} = 130 mph (3-Sec. Gust) / Equivalent to
V_{ASD} = 101 mph (3-Sec. Gust)
Basic Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent
Operational Wind Speed: 60 mph +0" Radial ice
Standard/Codes: ANSI/TIA/EIA 222-G, 2015 IBC
Exposure Category: C
Structure Class: II
Topographic Category: 1
Crest Height (Ft): 0

Mount Information

Low Profile Platform at 147.00' elevation

Final Antenna Configuration

3 RFS APXV18-206516S-C-A20
3 RFS APXVAARR24_43-U-NA20
3 Ericsson KRY 112 489/2
3 Allen Telecom FE15501P77/75
3 Ericsson Radio 4449 B71+B12
3 Kathrein 782 11056

Any proposed antennas not currently installed should be mounted such that the centers of the antennas do not exceed 0.5 ft vertically from the center of the Low Profile Platform.

In addition to the proposed equipment loading, a 500 lb serviceability load was also considered in this analysis in accordance with TIA requirements.

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration. The maximum structural usage is 39.7%, which occurs in the mount pipe. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

Attachments

1. Mount Photos
2. Antenna Placement Diagram
3. Mount Mapping Information
4. Analysis Calculations

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.

2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.

3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.

4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.

5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.

6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.

7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.

8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.

9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.


05.03.2019


02.05.2019

Structure: CT02217-S-SBA - Pomfret School

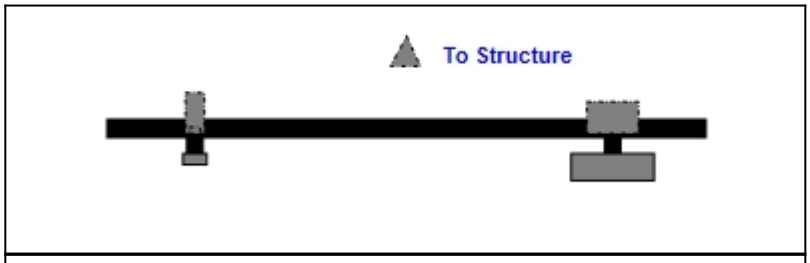
Sector: A

Structure Type: Monopole

Mount Elev: 147.00

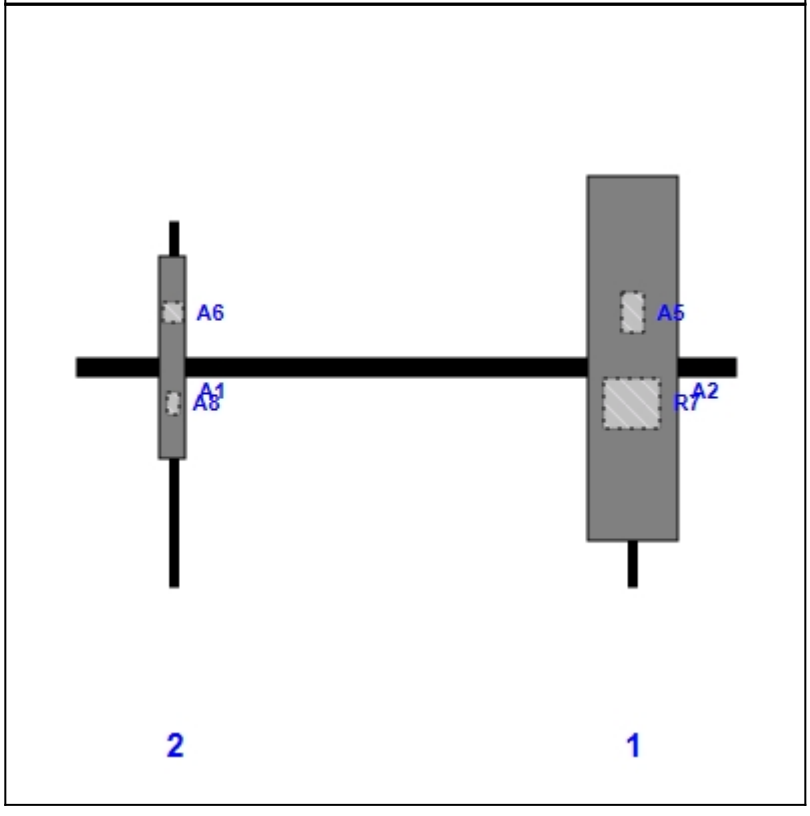
7/1/2019

Plan View



Front View

Looking Toward Structure



Ref	Model	Height (in)	Width (in)	H Dist From Left	Pipe	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
A2	APXVAARR24_43-U-NA20	95.90	24.00	147.00	1	a	Front	36.00	0.00
A5	KRY 112 489/2	11.00	6.10	147.00	1	a	Behind	24.00	0.00
R7	4449 B71+B12	13.10	14.90	147.00	1	a	Behind	48.00	0.00
A1	APXV18-206516S-C-A20	53.10	6.90	26.00	2	a	Front	36.00	0.00
A8	782 11056	5.50	3.20	26.00	2	a	Behind	48.00	0.00
A6	FE15501P77/75	5.40	5.50	26.00	2	a	Behind	24.00	0.00

Structure: CT02217-S-SBA - Pomfret School

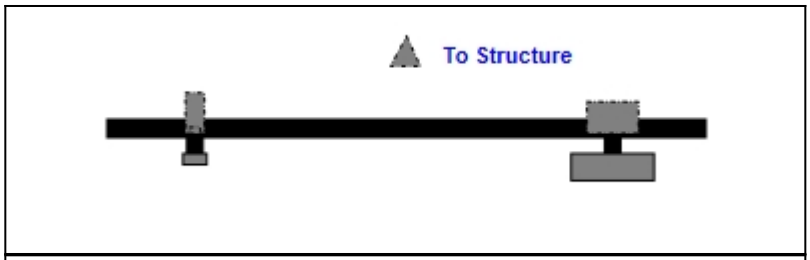
Sector: B

Structure Type: Monopole

Mount Elev: 147.00

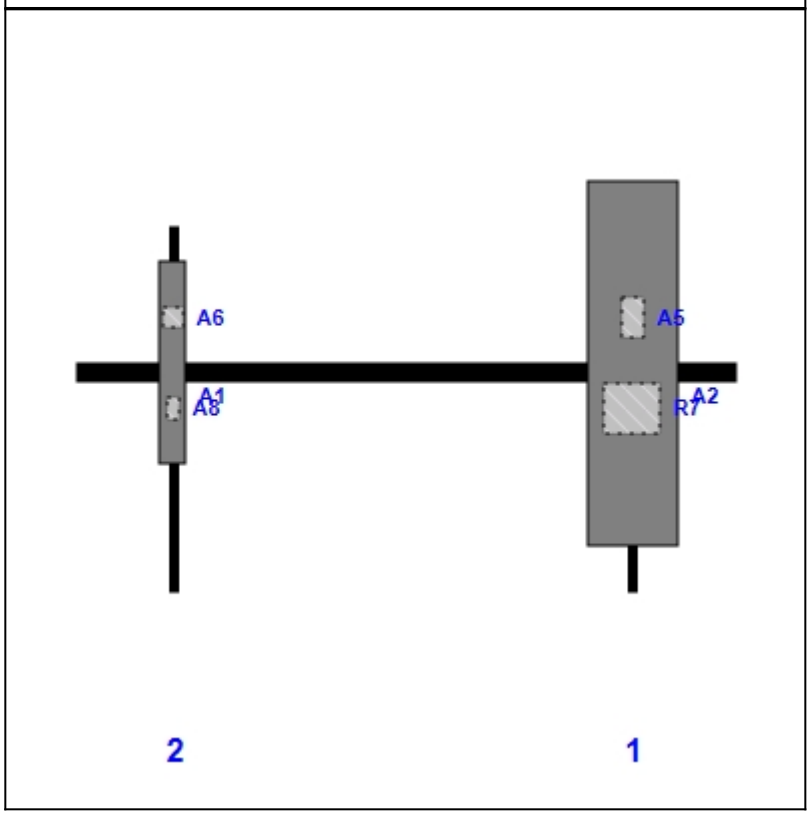
7/1/2019

Plan View



Front View

Looking Toward Structure



Ref	Model	Height (in)	Width (in)	H Dist From Left	Pipe	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
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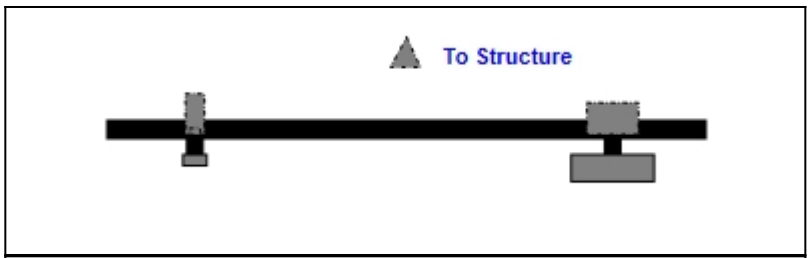
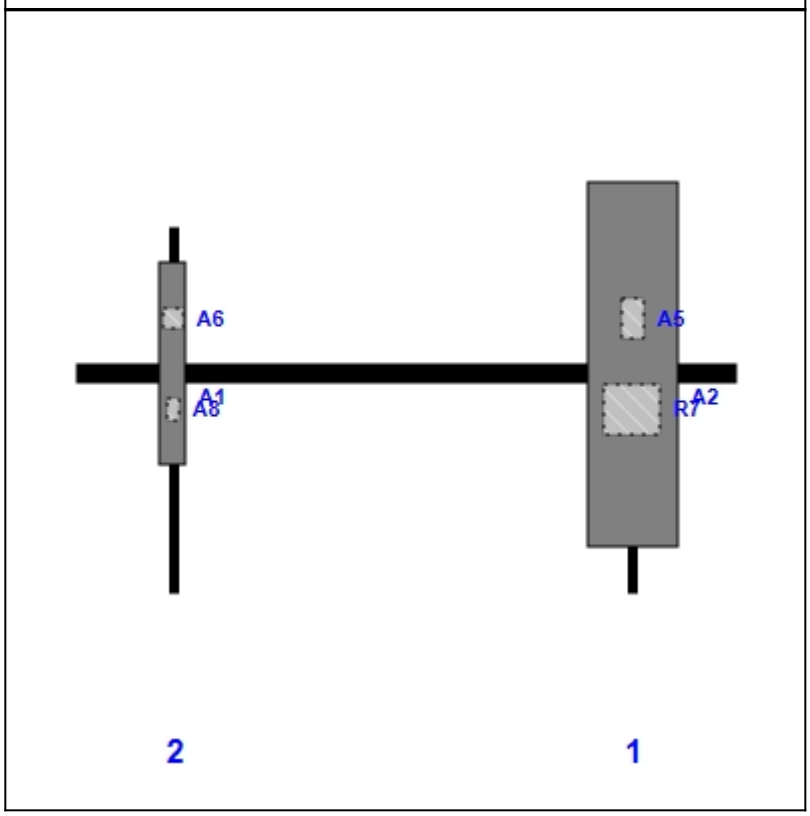
A5	KRY 112 489/2	11.00	6.10	147.00	1	a	Behind	24.00	0.00
R7	4449 B71+B12	13.10	14.90	147.00	1	a	Behind	48.00	0.00
A1	APXV18-206516S-C-A20	53.10	6.90	26.00	2	a	Front	36.00	0.00
A8	782 11056	5.50	3.20	26.00	2	a	Behind	48.00	0.00
A6	FE15501P77/75	5.40	5.50	26.00	2	a	Behind	24.00	0.00

Plan View



Front View

Looking Toward Structure

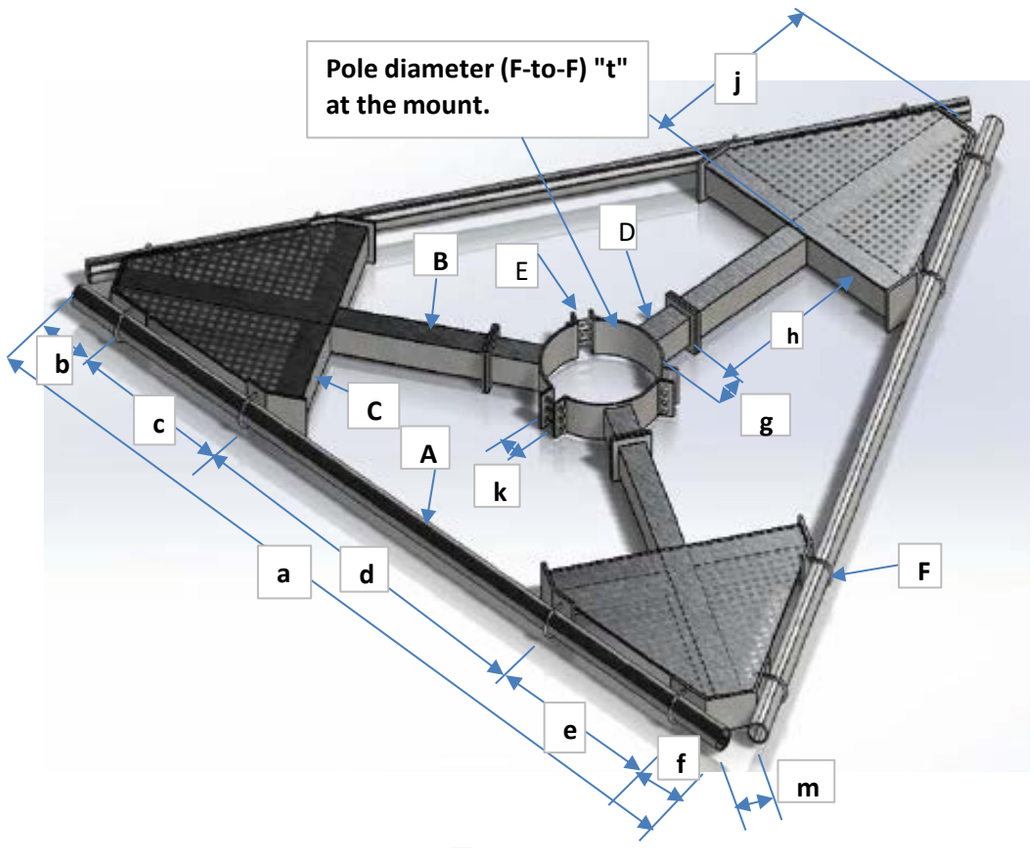


Ref	Model	Height (in)	Width (in)	H Dist From Left	Pipe	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
A2	APXVAARR24_43-U-NA20	95.90	24.00	147.00	1	a	Front	36.00	0.00
A5	KRY 112 489/2	11.00	6.10	147.00	1	a	Behind	24.00	0.00
R7	4449 B71+B12	13.10	14.90	147.00	1	a	Behind	48.00	0.00
A1	APXV18-206516S-C-A20	53.10	6.90	26.00	2	a	Front	36.00	0.00
A8	782 11056	5.50	3.20	26.00	2	a	Behind	48.00	0.00
A6	FE15501P77/75	5.40	5.50	26.00	2	a	Behind	24.00	0.00

Antenna Mount Type "MT-C" Mapping Form (PATENT PENDING)

FCC # 1232484

Tower Owner:	SBA Corp.	**Mapping Date:**	5/2/19
Site Name:	Pomfret School	**Structure Type:**	Monopole
Site Number or ID:	CT02217	**Structure Height (Ft.):**	168
Mapping Contractor:	SkyTower LLC	**Mount Height (Ft.):**	147



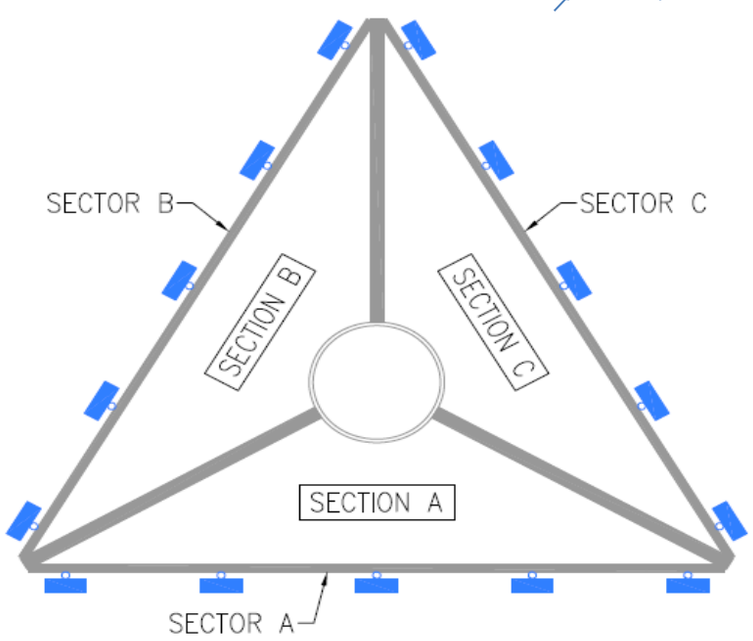
Geometries (Unit: inches)									
a	174	**e**	45	**j**	46	**o**		**s**	
b	5	**f**	7	**k**	17	**p**		**t**	30
c	45	**g**	6	**m**	12	**q**		**u ***	38
d	72	**h**	32	**n**		**r**		**v ***	96

Members/Bolts (Unit: inches) - See Ant. Layout for "u", "v" and member "K" (pipe

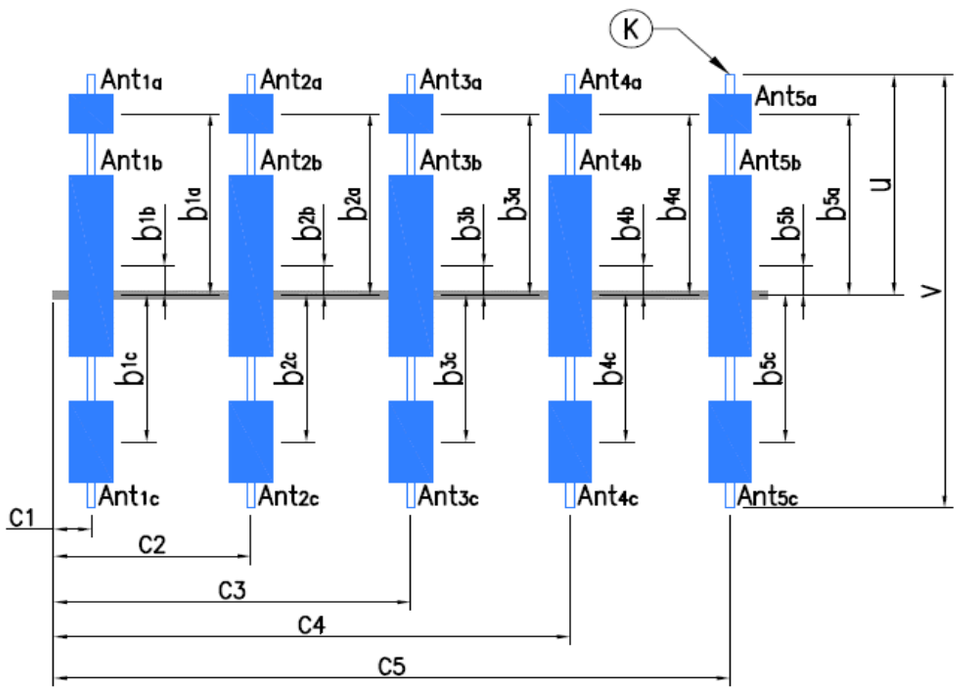
Items	Member	Lx (O.D.)	Ly (I.D.)	T	Items	Member	Lx (O.D.)	Ly (I.D.)	T
A	3.5 OD x 0.216 Pipe	3.5	3.068	0.216	**F**	1/2" U-Bolt			
B	Tubing 4x4x1/4	4	4	0.25	**G**				
C	Tubing 4x4x1/4	4	4	0.25	**H**				
D	1/2" Thick. Plate	0	0	0.5	**J**				
E	3/4" Bolt				**K* (pipe)**	2.375 OD x 0.154 Pip	2.375	2.067	0.154

Please enter the infomation below if members can't be found from the drop down lists

2.61 x 0.15 pipe 52" long connected as a horizontal support on POS 1 & 2 of opposite sectors above platform 24



Climbing facility is , at 10 Degree Azimuth



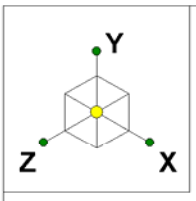
Antenna Layout

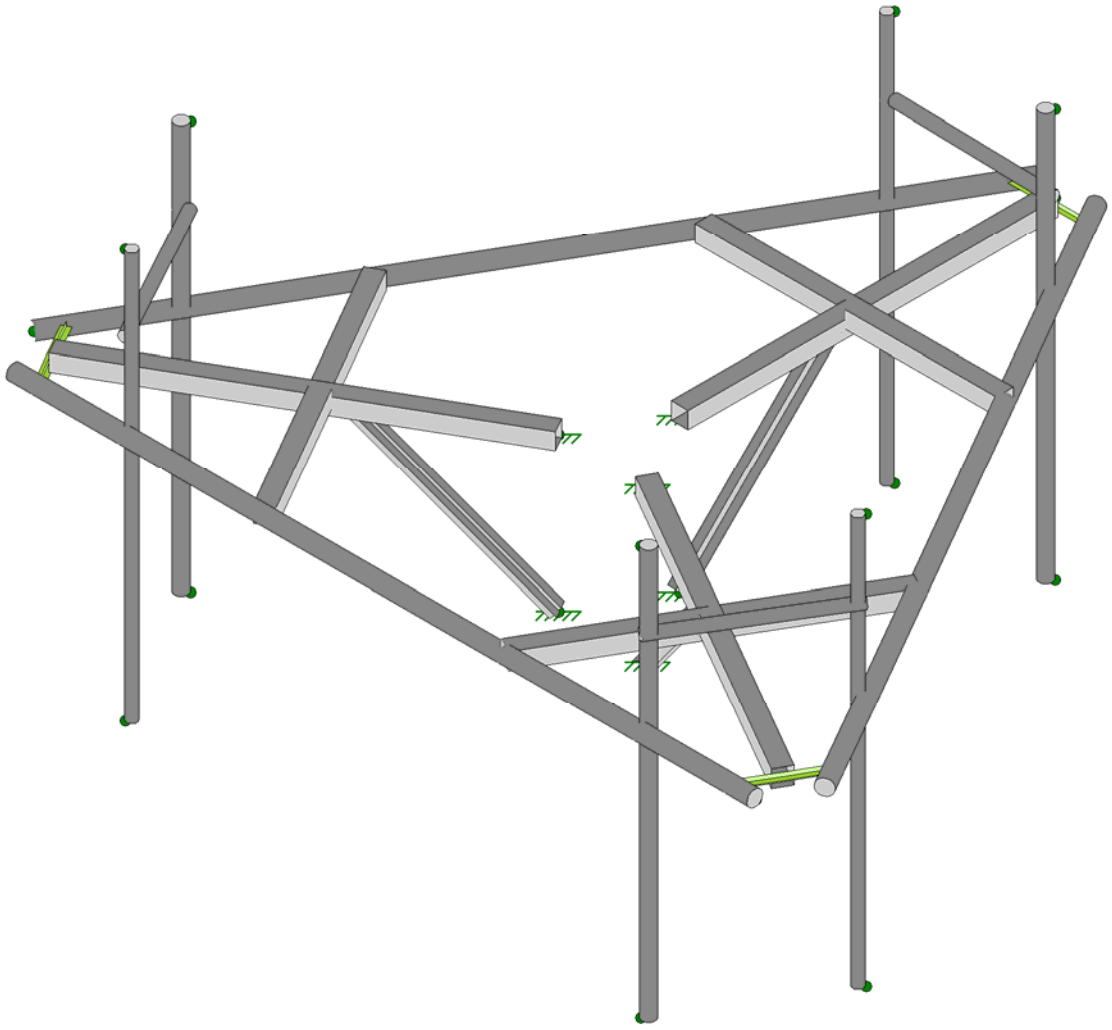
	Enter antenna model. If not labled, enter "Unknown". If no antenna at specified location, enter "N/A". If antennas and the locations are the same on all three sectors, only enter one sector.					Mounting Locations (Unit: inches)			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (In.)	Horiz. offset (Use "-" if Ant. is inside)	Horiz. offset "C_1, C_2, C_3, C_4, C_5" (in.)	Photo Numbers
Sector A									
Ant_{1a}	LNX-6515DS-A1M	12	7.5	96	2 (1/2)	12	2.5	27	206-211
Ant_{1b}									
Ant_{1c}									
Ant_{2a}	unknown	6.5	3.5	54	2 (1/2)	0	5	148	212-221
Ant_{2b}	DTMA1900	6	4	11		-9	0		
Ant_{2c}									
Ant_{3a}									
Ant_{3b}									
Ant_{3c}									
Ant_{4a}									
Ant_{4b}									
Ant_{4c}									
Ant_{5a}									
Ant_{5b}									
Ant_{5c}									
Are Ant same as sector A?	Yes	**Antennas on Sector B are the same as Sector A**							

Azimuth (Degree) of Each Sector and Climbing Information

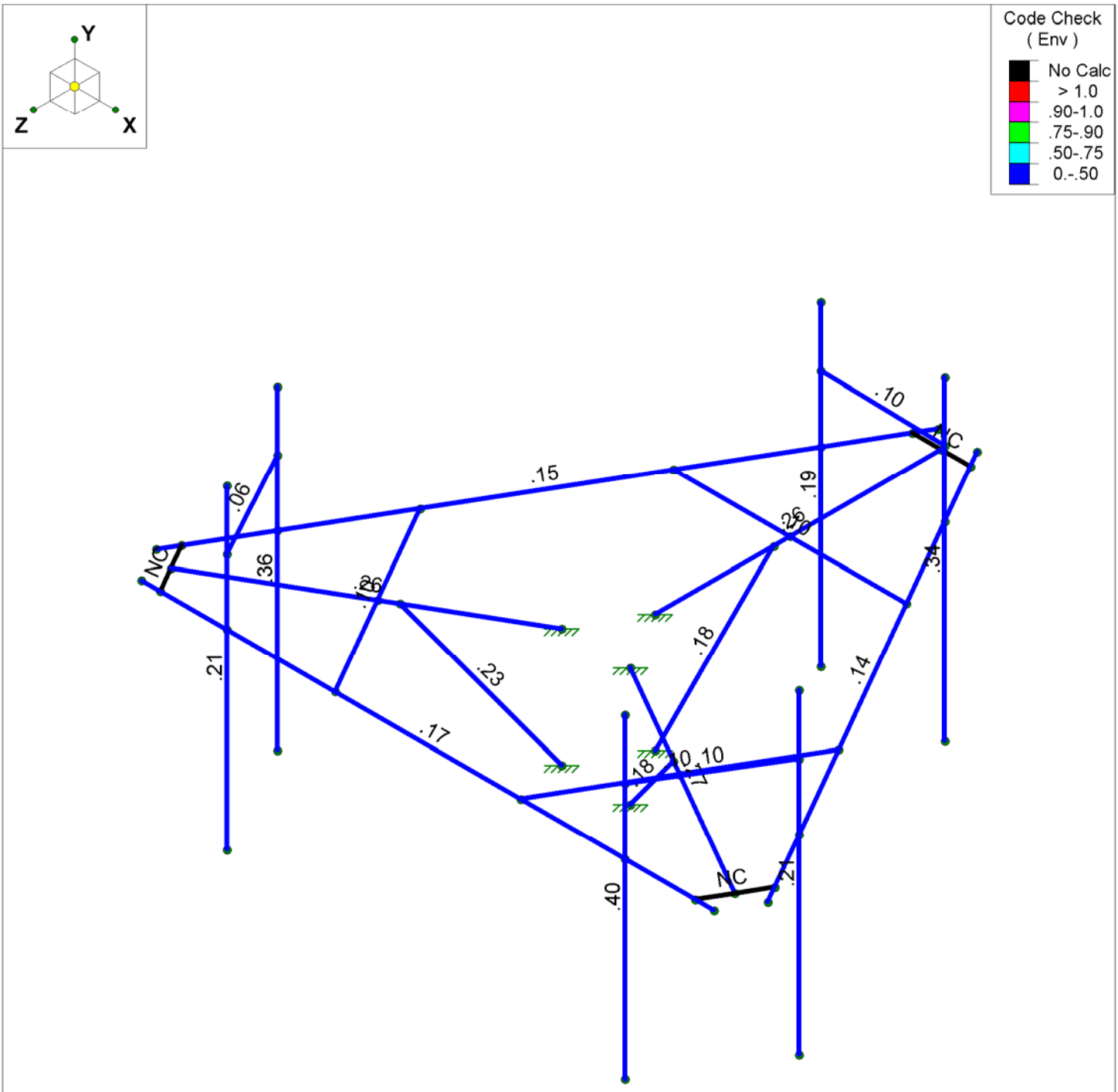
Sector A:	70	Deg	
Sector B:	190	Deg	
Sector C:	310	Deg	
Climbing	10	Deg	
Climbing Facility	Corrosion Type:	Good condition	
	Access:	Climbing path was unobstructed.	
	Condition:	N/A	

Are Ant same as sector A/B?	Same As A	**Antennas on Sector C are the same as Sector A**

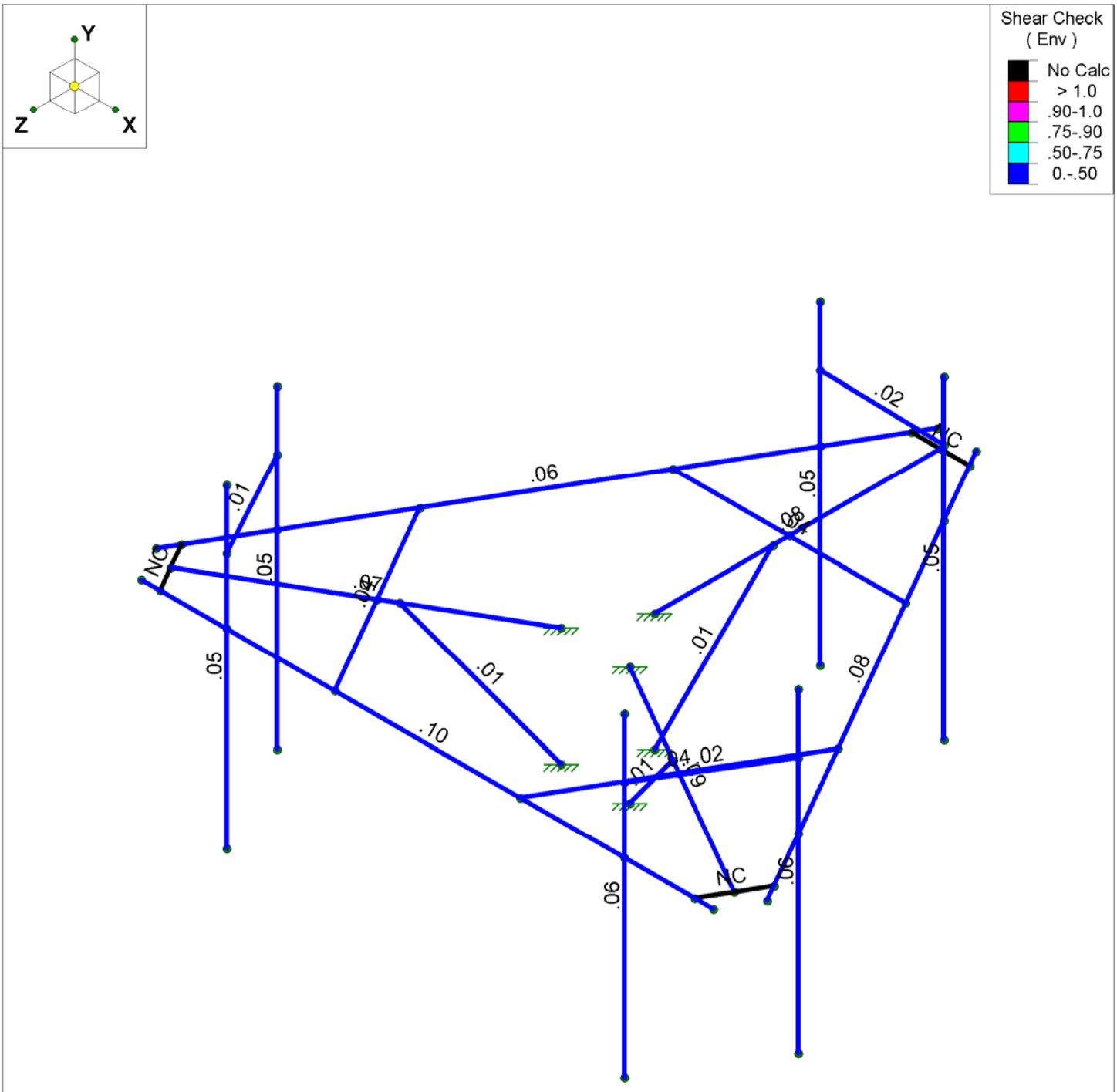




Tower Engineering Solutio...	CT02217-S-SBA_MT_LO_Loads Only_G	SK - 1
		July 23, 2019 at 9:56 AM
TES Project No. 80221		CT02217-S-SBA_80221_G_RISA_L...



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.6W (Front)



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT02217-S-SBA_MT_LO_Loads Only_G	SK - 1
		July 23, 2019 at 9:59 AM
TES Project No. 80221		CT02217-S-SBA_80221_G_RISA_L...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					24			
2	Antenna Di	None					24			
3	Antenna W Front	None					24			
4	Antenna Wi Front	None					24			
5	Antenna W Side	None					24			
6	Antenna Wi Side	None					24			
7	Service Lm1	None					1			
8	Service Lm2	None					1			
9	Structure D	None		-1					3	
10	Structure Di	None						23	3	
11	Structure W Front	None						23		
12	Structure Wi Front	None						23		
13	Structure W Side	None						23		
14	Structure Wi Side	None						23		
15	BLC 9 Transient Area...	None						24		
16	BLC 10 Transient Are...	None						24		

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	1.2D+1.6W (Front)	Yes	Y		1	1.2	9	1.2	3	1.6	11	1.6												
2	1.2D+1.6W (Back)	Yes	Y		1	1.2	9	1.2	3	-1.6	11	-1.6												
3	1.2D+1.6W (Left)	Yes	Y		1	1.2	9	1.2	5	1.6	13	1.6												
4	1.2D+1.6W (Right)	Yes	Y		1	1.2	9	1.2	5	-1.6	13	-1.6												
5	1.2D+1.0Di+1.0Wi (...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	1	12	1								
6	1.2D+1.0Di+1.0Wi (...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	-1	12	-1								
7	1.2D+1.0Di+1.0Wi (...	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	1	14	1								
8	1.2D+1.0Di+1.0Wi (...	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	-1	14	-1								
9	1.2D+1.5L1+.16W (...	Yes	Y		1	1.2	9	1.2	7	1.5	3	.16	11	.16										
10	1.2D+1.5L2+.16W (...	Yes	Y		1	1.2	9	1.2	8	1.5	3	.16	11	.16										
11	1.4D	Yes	Y		1	1.4	9	1.4																

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-0.866025	0	.5	0	
2	N2	0.866025	0	.5	0	
3	N3	0	0	-1	0	
4	N4	-7.25	0	4.76314	0	
5	N5	7.25	0	4.76314	0	
6	N6	7.75	0	3.897114	0	
7	N7	.5	0	-8.660254	0	
8	N8	-.5	0	-8.660254	0	
9	N9	-7.75	0	3.897114	0	
10	N10	-7.14471	0	4.125	0	
11	N11	7.14471	0	4.125	0	
12	N12	-2e-14	0	-8.25	0	
13	N13	-6.776279	0	4.76314	0	
14	N14	-2.349927	0	4.76314	0	
15	N15	2.349927	0	4.76314	0	
16	N16	6.776279	0	4.76314	0	
17	N17	7.51314	0	3.48686	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
18	N18	5.299964	0	-0.346473	0	
19	N19	2.950036	0	-4.416667	0	
20	N20	0.73686	0	-8.25	0	
21	N21	-0.73686	0	-8.25	0	
22	N22	-2.950036	0	-4.416667	0	
23	N23	-5.299964	0	-0.346473	0	
24	N24	-7.51314	0	3.48686	0	
25	NP1	5	3.166667	4.76314	0	
26	NP2	5	-4.833333	4.76314	0	
27	NP3	-5.083333	3.166667	4.76314	0	
28	NP4	-5.083333	-4.833333	4.76314	0	
29	NP11	-6.625	3.166667	1.948557	0	
30	NP12	-6.625	-4.833333	1.948557	0	
31	NP13	-1.583333	3.166667	-6.783866	0	
32	NP14	-1.583333	-4.833333	-6.783866	0	
33	NP21	1.625	3.166667	-6.711697	0	
34	NP22	1.625	-4.833333	-6.711697	0	
35	NP23	6.666667	3.166667	2.020726	0	
36	NP24	6.666667	-4.833333	2.020726	0	
37	N37	5	0	4.76314	0	
38	N38	-5.083333	0	4.76314	0	
39	N39	1.625	0	-6.711697	0	
40	N40	6.666667	0	2.020726	0	
41	N41	-6.625	0	1.948557	0	
42	N42	-1.583333	0	-6.783866	0	
43	N43	-3.824946	0	2.208333	0	
44	N44	3.824946	0	2.208333	0	
45	N45	-1e-14	0	-4.416667	0	
46	N46	5	1.666667	4.76314	0	
47	N47	6.666667	1.666667	2.020726	0	
48	N48	1.625	1.666667	-6.711697	0	
49	N49	-1.583333	1.666667	-6.783866	0	
50	N50	-6.625	1.666667	1.948557	0	
51	N51	-5.083333	1.666667	4.76314	0	
52	N52	0	-3	-1	0	
53	N53	0	0	-4	0	
54	N54	-0.866025	-3	.5	0	
55	N55	-3.464102	0	2	0	
56	N56	0.866025	-3	.5	0	
57	N57	3.464102	0	2	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	xxxxx	HSS16x0.438	Beam	None	A572 Gr.50	Typical	19.9	606	606	1210

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF	4CU5.25X03...	Beam	CU	A570 Gr.33	Typical	4.854	13.238	12.817	.228

Aluminum Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	AL1A	AACS14X13.9	Beam	AA Channel	3003-H14	Typical	11.8	44.7	401	1.19

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70

Aluminum Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...	Density[...	Table B.4	kt	Ftu[ksi]	Fty[ksi]	Fcy[ksi]	Fsu[ksi]	Ct
1	3003-H14	10100	3787.5	.33	1.3	.173	Table B....	1	19	16	13	12	141
2	6061-T6	10100	3787.5	.33	1.3	.173	Table B....	1	38	35	35	24	141
3	6063-T5	10100	3787.5	.33	1.3	.173	Table B....	1	22	16	16	13	141
4	6063-T6	10100	3787.5	.33	1.3	.173	Table B....	1	30	25	25	19	141
5	5052-H34	10200	3787.5	.33	1.3	.173	Table B....	1	34	26	24	20	141
6	6061-T6 W	10100	3787.5	.33	1.3	.173	Table B....	1	24	15	15	15	141

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
1	M1						Yes			None
2	M2						Yes			None
3	M3						Yes			None
4	M4						Yes			None
5	M5						Yes			None
6	M6						Yes			None
7	M7						Yes			None
8	M8						Yes			None
9	M9						Yes			None
10	M10						Yes			None
11	M11						Yes			None
12	M12						Yes			None
13	MP1A						Yes	-z		None
14	MP2A						Yes	-z		None
15	MP1B						Yes	+z		None
16	MP2B						Yes	+z		None
17	MP1C						Yes	+z		None
18	MP2C						Yes	+z		None
19	M19						Yes			None
20	M20						Yes			None
21	M21						Yes			None
22	M22						Yes			None
23	M23						Yes			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
24	M24						Yes			None
25	M25						Yes			None
26	M26						Yes			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	PIPE_3.0	14.5			Lbyy						Lateral
2	M2	PIPE_3.0	14.5			Lbyy						Gravity
3	M3	PIPE_3.0	14.5			Lbyy						Gravity
4	M4	HSS4x4x4	7.25			Lbyy						Gravity
5	M5	HSS4x4x4	7.25			Lbyy						Gravity
6	M6	HSS4x4x4	7.25			Lbyy						Gravity
7	M7	HSS4x4x4	5.9			Lbyy						Gravity
8	M8	HSS4x4x4	5.9			Lbyy						Lateral
9	M9	HSS4x4x4	5.9			Lbyy						Gravity
10	MP1A	PIPE_2.5	8			Lbyy						Lateral
11	MP2A	PIPE_2.0	8			Lbyy						Lateral
12	MP1B	PIPE_2.5	8			Lbyy						Gravity
13	MP2B	PIPE_2.0	8			Lbyy						Lateral
14	MP1C	PIPE_2.5	8			Lbyy						Lateral
15	MP2C	PIPE_2.0	8			Lbyy						Lateral
16	M19	PIPE_2.0	3.209			Lbyy						Lateral
17	M20	PIPE_2.0	3.209			Lbyy						Lateral
18	M21	PIPE_2.0	3.209			Lbyy						Lateral
19	M22	LL2.5x2.5x3...	4.243			Lbyy						Lateral
20	M23	LL2.5x2.5x3...	4.243			Lbyy						Lateral
21	M24	LL2.5x2.5x3...	4.243			Lbyy						Lateral
22	M25	LL2.5x2.5x3...	4.243			Lbyy						Lateral
23	M26	LL2.5x2.5x3...	4.243			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[ft]	y sw...	z sw...
No Data to Print ...																

Aluminum Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
No Data to Print ...											

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
No Data to Print ...			

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-9.35	1
2	MP2A	Y	-9.35	5
3	MP2B	Y	-9.35	1
4	MP2B	Y	-9.35	5
5	MP2C	Y	-9.35	1

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2C	Y	-9.35	5
7	MP1A	Y	-64	1
8	MP1A	Y	-64	5
9	MP1B	Y	-64	1
10	MP1B	Y	-64	5
11	MP1C	Y	-64	1
12	MP1C	Y	-64	5
13	MP1A	Y	-15.4	2
14	MP1B	Y	-15.4	2
15	MP1C	Y	-15.4	2
16	MP2A	Y	-17.5	2
17	MP2B	Y	-17.5	2
18	MP2C	Y	-17.5	2
19	MP1A	Y	-74	4
20	MP1B	Y	-74	4
21	MP1C	Y	-74	4
22	MP2A	Y	-1.8	4
23	MP2B	Y	-1.8	4
24	MP2C	Y	-1.8	4

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-44.629	1
2	MP2A	Y	-44.629	5
3	MP2B	Y	-44.629	1
4	MP2B	Y	-44.629	5
5	MP2C	Y	-44.629	1
6	MP2C	Y	-44.629	5
7	MP1A	Y	-208.491	1
8	MP1A	Y	-208.491	5
9	MP1B	Y	-208.491	1
10	MP1B	Y	-208.491	5
11	MP1C	Y	-208.491	1
12	MP1C	Y	-208.491	5
13	MP1A	Y	-24.731	2
14	MP1B	Y	-24.731	2
15	MP1C	Y	-24.731	2
16	MP2A	Y	-83.065	2
17	MP2B	Y	-83.065	2
18	MP2C	Y	-83.065	2
19	MP1A	Y	-67.112	4
20	MP1B	Y	-67.112	4
21	MP1C	Y	-67.112	4
22	MP2A	Y	-9.253	4
23	MP2B	Y	-9.253	4
24	MP2C	Y	-9.253	4

Member Point Loads (BLC 3 : Antenna W Front)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-67.609	1
2	MP2A	Z	-67.609	5
3	MP2B	Z	-45.407	1
4	MP2B	Z	-45.407	5
5	MP2C	Z	-45.407	1
6	MP2C	Z	-45.407	5
7	MP1A	Z	-379.059	1

Member Point Loads (BLC 3 : Antenna W Front) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP1A	Z	-379.059	5
9	MP1B	Z	-209.792	1
10	MP1B	Z	-209.792	5
11	MP1C	Z	-209.792	1
12	MP1C	Z	-209.792	5
13	MP1A	Z	-24.347	2
14	MP1B	Z	-16.249	2
15	MP1C	Z	-16.249	2
16	MP2A	Z	-9.364	2
17	MP2B	Z	-17.195	2
18	MP2C	Z	-17.195	2
19	MP1A	Z	-61.054	4
20	MP1B	Z	-43.478	4
21	MP1C	Z	-43.478	4
22	MP2A	Z	-5.618	4
23	MP2B	Z	-3.77	4
24	MP2C	Z	-3.77	4

Member Point Loads (BLC 4 : Antenna Wi Front)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-20.941	1
2	MP2A	Z	-20.941	5
3	MP2B	Z	-15.265	1
4	MP2B	Z	-15.265	5
5	MP2C	Z	-15.265	1
6	MP2C	Z	-15.265	5
7	MP1A	Z	-101.601	1
8	MP1A	Z	-101.601	5
9	MP1B	Z	-59.011	1
10	MP1B	Z	-59.011	5
11	MP1C	Z	-59.011	1
12	MP1C	Z	-59.011	5
13	MP1A	Z	-8.332	2
14	MP1B	Z	-6.688	2
15	MP1C	Z	-6.688	2
16	MP2A	Z	-4.185	2
17	MP2B	Z	-4.185	2
18	MP2C	Z	-4.185	2
19	MP1A	Z	-19.825	4
20	MP1B	Z	-14.877	4
21	MP1C	Z	-14.877	4
22	MP2A	Z	-3.24	4
23	MP2B	Z	-2.635	4
24	MP2C	Z	-2.635	4

Member Point Loads (BLC 5 : Antenna W Side)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	38.006	1
2	MP2A	X	38.006	5
3	MP2B	X	60.208	1
4	MP2B	X	60.208	5
5	MP2C	X	60.208	1
6	MP2C	X	60.208	5
7	MP1A	X	153.37	1
8	MP1A	X	153.37	5
9	MP1B	X	322.637	1

Member Point Loads (BLC 5 : Antenna W Side) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP1B	X	322.637	5
11	MP1C	X	322.637	1
12	MP1C	X	322.637	5
13	MP1A	X	13.55	2
14	MP1B	X	21.647	2
15	MP1C	X	21.647	2
16	MP2A	X	19.805	2
17	MP2B	X	11.974	2
18	MP2C	X	11.974	2
19	MP1A	X	37.619	4
20	MP1B	X	55.195	4
21	MP1C	X	55.195	4
22	MP2A	X	3.154	4
23	MP2B	X	5.002	4
24	MP2C	X	5.002	4

Member Point Loads (BLC 6 : Antenna Wi Side)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	13.373	1
2	MP2A	X	13.373	5
3	MP2B	X	19.049	1
4	MP2B	X	19.049	5
5	MP2C	X	19.049	1
6	MP2C	X	19.049	5
7	MP1A	X	44.814	1
8	MP1A	X	44.814	5
9	MP1B	X	87.404	1
10	MP1B	X	87.404	5
11	MP1C	X	87.404	1
12	MP1C	X	87.404	5
13	MP1A	X	6.139	2
14	MP1B	X	7.784	2
15	MP1C	X	7.784	2
16	MP2A	X	-7.376	2
17	MP2B	X	-7.376	2
18	MP2C	X	-7.376	2
19	MP1A	X	13.227	4
20	MP1B	X	18.176	4
21	MP1C	X	18.176	4
22	MP2A	X	2.433	4
23	MP2B	X	3.038	4
24	MP2C	X	3.038	4

Member Point Loads (BLC 7 : Service Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	0

Member Point Loads (BLC 8 : Service Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%50

Member Distributed Loads (BLC 10 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-11.154	-11.154	0	%100
2	M2	Y	-11.154	-11.154	0	%100
3	M3	Y	-11.154	-11.154	0	%100
4	M4	Y	-15.556	-15.556	0	%100
5	M5	Y	-15.556	-15.556	0	%100
6	M6	Y	-15.556	-15.556	0	%100
7	M7	Y	-15.556	-15.556	0	%100
8	M8	Y	-15.556	-15.556	0	%100
9	M9	Y	-15.556	-15.556	0	%100
10	MP1A	Y	-9.824	-9.824	0	%100
11	MP2A	Y	-8.76	-8.76	0	%100
12	MP1B	Y	-9.824	-9.824	0	%100
13	MP2B	Y	-8.76	-8.76	0	%100
14	MP1C	Y	-9.824	-9.824	0	%100
15	MP2C	Y	-8.76	-8.76	0	%100
16	M19	Y	-8.76	-8.76	0	%100
17	M20	Y	-8.76	-8.76	0	%100
18	M21	Y	-8.76	-8.76	0	%100
19	M22	Y	-14.879	-14.879	0	%100
20	M23	Y	-14.879	-14.879	0	%100
21	M24	Y	-14.879	-14.879	0	%100
22	M25	Y	-14.879	-14.879	0	%100
23	M26	Y	-14.879	-14.879	0	%100

Member Distributed Loads (BLC 11 : Structure W Front)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	PZ	-13.11	-13.11	0	%100
2	M2	PZ	-13.11	-13.11	0	%100
3	M3	PZ	-13.11	-13.11	0	%100
4	M4	PZ	-24.971	-24.971	0	%100
5	M5	PZ	-24.971	-24.971	0	%100
6	M6	PZ	-24.971	-24.971	0	%100
7	M7	PZ	-24.971	-24.971	0	%100
8	M8	PZ	-24.971	-24.971	0	%100
9	M9	PZ	-24.971	-24.971	0	%100
10	MP1A	PZ	-10.769	-10.769	0	%100
11	MP2A	PZ	-8.896	-8.896	0	%100
12	MP1B	PZ	-10.769	-10.769	0	%100
13	MP2B	PZ	-8.896	-8.896	0	%100
14	MP1C	PZ	-10.769	-10.769	0	%100
15	MP2C	PZ	-8.896	-8.896	0	%100
16	M19	PZ	-8.896	-8.896	0	%100
17	M20	PZ	-8.896	-8.896	0	%100
18	M21	PZ	-8.896	-8.896	0	%100
19	M22	PZ	-15.607	-15.607	0	%100
20	M23	PZ	-15.607	-15.607	0	%100
21	M24	PZ	-15.607	-15.607	0	%100
22	M25	PZ	-15.607	-15.607	0	%100
23	M26	PZ	-15.607	-15.607	0	%100

Member Distributed Loads (BLC 12 : Structure Wi Front)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	PZ	-6.41	-6.41	0	%100
2	M2	PZ	-6.41	-6.41	0	%100
3	M3	PZ	-6.41	-6.41	0	%100

Member Distributed Loads (BLC 12 : Structure Wi Front) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
4	M4	PZ	-9.317	-9.317	0	%100
5	M5	PZ	-9.317	-9.317	0	%100
6	M6	PZ	-9.317	-9.317	0	%100
7	M7	PZ	-9.317	-9.317	0	%100
8	M8	PZ	-9.317	-9.317	0	%100
9	M9	PZ	-9.317	-9.317	0	%100
10	MP1A	PZ	-5.837	-5.837	0	%100
11	MP2A	PZ	-5.378	-5.378	0	%100
12	MP1B	PZ	-5.837	-5.837	0	%100
13	MP2B	PZ	-5.378	-5.378	0	%100
14	MP1C	PZ	-5.837	-5.837	0	%100
15	MP2C	PZ	-5.378	-5.378	0	%100
16	M19	PZ	-5.378	-5.378	0	%100
17	M20	PZ	-5.378	-5.378	0	%100
18	M21	PZ	-5.378	-5.378	0	%100
19	M22	PZ	-7.022	-7.022	0	%100
20	M23	PZ	-7.022	-7.022	0	%100
21	M24	PZ	-7.022	-7.022	0	%100
22	M25	PZ	-7.022	-7.022	0	%100
23	M26	PZ	-7.022	-7.022	0	%100

Member Distributed Loads (BLC 13 : Structure W Side)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	PX	13.11	13.11	0	%100
2	M2	PX	13.11	13.11	0	%100
3	M3	PX	13.11	13.11	0	%100
4	M4	PX	24.971	24.971	0	%100
5	M5	PX	24.971	24.971	0	%100
6	M6	PX	24.971	24.971	0	%100
7	M7	PX	24.971	24.971	0	%100
8	M8	PX	24.971	24.971	0	%100
9	M9	PX	24.971	24.971	0	%100
10	MP1A	PX	10.769	10.769	0	%100
11	MP2A	PX	8.896	8.896	0	%100
12	MP1B	PX	10.769	10.769	0	%100
13	MP2B	PX	8.896	8.896	0	%100
14	MP1C	PX	10.769	10.769	0	%100
15	MP2C	PX	8.896	8.896	0	%100
16	M19	PX	8.896	8.896	0	%100
17	M20	PX	8.896	8.896	0	%100
18	M21	PX	8.896	8.896	0	%100
19	M22	PX	15.607	15.607	0	%100
20	M23	PX	15.607	15.607	0	%100
21	M24	PX	15.607	15.607	0	%100
22	M25	PX	15.607	15.607	0	%100
23	M26	PX	15.607	15.607	0	%100

Member Distributed Loads (BLC 14 : Structure Wi Side)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	PX	6.41	6.41	0	%100
2	M2	PX	6.41	6.41	0	%100
3	M3	PX	6.41	6.41	0	%100
4	M4	PX	9.317	9.317	0	%100
5	M5	PX	9.317	9.317	0	%100
6	M6	PX	9.317	9.317	0	%100
7	M7	PX	9.317	9.317	0	%100

Member Distributed Loads (BLC 14 : Structure Wi Side) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
8	M8	PX	9.317	9.317	0	%100
9	M9	PX	9.317	9.317	0	%100
10	MP1A	PX	5.837	5.837	0	%100
11	MP2A	PX	5.378	5.378	0	%100
12	MP1B	PX	5.837	5.837	0	%100
13	MP2B	PX	5.378	5.378	0	%100
14	MP1C	PX	5.837	5.837	0	%100
15	MP2C	PX	5.378	5.378	0	%100
16	M19	PX	5.378	5.378	0	%100
17	M20	PX	5.378	5.378	0	%100
18	M21	PX	5.378	5.378	0	%100
19	M22	PX	7.022	7.022	0	%100
20	M23	PX	7.022	7.022	0	%100
21	M24	PX	7.022	7.022	0	%100
22	M25	PX	7.022	7.022	0	%100
23	M26	PX	7.022	7.022	0	%100

Member Distributed Loads (BLC 15 : BLC 9 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M2	Y	-4.308	-2.773	10.15	12.325
2	M2	Y	-2.773	-1.238	12.325	14.5
3	M3	Y	-1.238	-2.773	0	2.175
4	M3	Y	-2.773	-4.308	2.175	4.35
5	M6	Y	-3.863	-6.111	3.625	5.438
6	M6	Y	-6.111	-8.358	5.438	7.25
7	M9	Y	-4.728	-4.728	.268	5.633
8	M12	Y	-2.156	-2.156	.308	1.166
9	M1	Y	-4.308	-2.773	10.15	12.325
10	M1	Y	-2.773	-1.238	12.325	14.5
11	M2	Y	-1.238	-2.773	0	2.175
12	M2	Y	-2.773	-4.308	2.175	4.35
13	M5	Y	-3.863	-6.111	3.625	5.438
14	M5	Y	-6.111	-8.358	5.438	7.25
15	M8	Y	-4.728	-4.728	.268	5.633
16	M11	Y	-2.156	-2.156	.308	1.166
17	M1	Y	-1.238	-2.773	0	2.175
18	M1	Y	-2.773	-4.308	2.175	4.35
19	M3	Y	-4.308	-2.773	10.15	12.325
20	M3	Y	-2.773	-1.238	12.325	14.5
21	M4	Y	-3.863	-6.111	3.625	5.438
22	M4	Y	-6.111	-8.358	5.438	7.25
23	M7	Y	-4.728	-4.728	.268	5.633
24	M10	Y	-2.156	-2.156	.308	1.166

Member Distributed Loads (BLC 16 : BLC 10 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M2	Y	-10.601	-6.823	10.15	12.325
2	M2	Y	-6.823	-3.046	12.325	14.5
3	M3	Y	-3.046	-6.823	0	2.175
4	M3	Y	-6.823	-10.601	2.175	4.35
5	M6	Y	-9.506	-15.036	3.625	5.438
6	M6	Y	-15.036	-20.566	5.438	7.25
7	M9	Y	-11.633	-11.633	.268	5.633
8	M12	Y	-5.304	-5.304	.308	1.166
9	M1	Y	-10.601	-6.823	10.15	12.325
10	M1	Y	-6.823	-3.046	12.325	14.5

Member Distributed Loads (BLC 16 : BLC 10 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
11	M2	Y	-3.046	-6.823	0	2.175
12	M2	Y	-6.823	-10.601	2.175	4.35
13	M5	Y	-9.506	-15.036	3.625	5.438
14	M5	Y	-15.036	-20.566	5.438	7.25
15	M8	Y	-11.633	-11.633	.268	5.633
16	M11	Y	-5.304	-5.304	.308	1.166
17	M1	Y	-3.046	-6.823	0	2.175
18	M1	Y	-6.823	-10.601	2.175	4.35
19	M3	Y	-10.601	-6.823	10.15	12.325
20	M3	Y	-6.823	-3.046	12.325	14.5
21	M4	Y	-9.506	-15.036	3.625	5.438
22	M4	Y	-15.036	-20.566	5.438	7.25
23	M7	Y	-11.633	-11.633	.268	5.633
24	M10	Y	-5.304	-5.304	.308	1.166

Member Area Loads (BLC 9 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N19	N20	N21	N22	Y	Two Way	-.005
2	N15	N16	N17	N18	Y	Two Way	-.005
3	N13	N14	N23	N24	Y	Two Way	-.005

Member Area Loads (BLC 10 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N19	N20	N21	N22	Y	Two Way	-.013
2	N15	N16	N17	N18	Y	Two Way	-.013
3	N13	N14	N23	N24	Y	Two Way	-.013

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N51						
5	N52	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N53						
7	N54	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N55						
9	N56	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
10	N57						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	3537.079	4	-442.837	10	566.223	3	.715	7	.565	1	1.123	9
2		min	-1611.216	3	-1644.873	9	-1812.594	6	-.19	10	-.539	2	.248	4
3	N2	max	1128.957	4	-448.744	10	1223.19	1	.54	8	2.08	2	-.336	3
4		min	-3266.647	7	-1508.952	8	-2398.917	2	-.193	10	-2.045	1	-1.156	8
5	N3	max	1155.663	4	-451.67	1	4188.948	1	-.342	1	2.398	3	.135	8
6		min	-1191.466	3	-1459.365	6	-1913.301	2	-1.227	6	-2.354	4	.015	4
7	N52	max	276.256	4	3890.353	6	-1285.231	10	-.023	1	.365	3	.364	3
8		min	-236.77	3	1221.56	10	-4095.079	6	-.223	6	-.403	4	-.402	4
9	N54	max	-1161.506	4	3874.461	7	1983.672	5	.087	10	.08	10	.125	7
10		min	-3480.552	7	1339.483	2	600.11	2	-.052	2	-.074	2	-.008	10

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
11	N56	max	3558.78	8	3912.897	8	2136.188	5	.345	1	.303	2	.078	1
12		min	1111.904	3	1331.921	9	516.508	2	-.239	2	-.338	1	-.194	6
13	Totals:	max	6294.249	4	7147.849	8	6356.482	1						
14		min	-6294.249	3	2589.311	4	-6356.482	2						

Envelope Member Section Forces

	Member	Sec		Axial[lb]	LC	y Shear[...	LC	z Shear[...	LC	Torque[...	LC	y-y Mom...	LC	z-z Mo...	LC
1	M1	1	max	0	1	0	1	0	1	0	1	0	1	0	1
2			min	0	1	-750	9	0	1	0	1	0	1	0	1
3		2	max	848.282	2	-24.381	4	219.497	2	.114	9	.018	4	.44	9
4			min	-1169.616	1	-187.104	6	-228.782	1	-.099	10	-.019	3	.103	3
5		3	max	1035.339	2	405.884	10	209.679	3	.118	9	.054	1	.462	8
6			min	-1371.767	1	27.954	3	-211.649	4	-.106	7	-.051	2	-.608	10
7		4	max	788.837	2	433.086	7	635.766	1	.109	2	.039	3	.175	8
8			min	-1111.381	1	136.856	10	-626.265	2	-.144	1	-.043	4	.02	1
9		5	max	0	1	0	1	0	1	0	1	0	1	0	1
10			min	0	1	0	1	0	1	0	1	0	1	0	1
11	M2	1	max	0	1	.004	2	.002	4	0	1	0	1	0	1
12			min	0	1	-.004	4	-.001	2	0	1	0	1	0	1
13		2	max	945.172	3	-4.63	2	256.791	1	-.008	4	.043	1	.434	8
14			min	-1266.68	4	-187.878	7	-266.76	2	-.102	10	-.043	2	.114	1
15		3	max	1011.362	3	120.132	10	47.596	1	-.026	1	.045	4	.531	6
16			min	-1346.779	4	18.761	1	-50.609	2	-.117	10	-.041	3	.161	9
17		4	max	755.346	3	458.647	8	499.417	4	.11	3	.025	3	.227	7
18			min	-1076.417	4	150.726	4	-489.941	3	-.146	4	-.031	4	.016	10
19		5	max	0	1	.003	2	0	3	0	1	0	1	0	1
20			min	0	1	-.003	4	-.001	1	0	1	0	1	0	1
21	M3	1	max	0	1	.004	3	0	3	0	1	0	1	0	1
22			min	0	1	-.004	2	-.001	1	0	1	0	1	0	1
23		2	max	1002.637	1	-20.398	3	301.185	4	.012	10	.078	4	.434	6
24			min	-1323.651	2	-196.714	5	-310.568	3	-.085	8	-.079	3	.104	10
25		3	max	811.645	4	77.951	6	163.809	2	.036	10	.06	3	.566	5
26			min	-1146.53	3	-71.307	10	-166.417	1	-.172	9	-.056	4	.178	2
27		4	max	542.541	4	463.827	8	502.273	3	.046	10	.055	3	.5	9
28			min	-862.374	3	154.051	2	-494.11	4	-.09	9	-.06	4	.05	3
29		5	max	0	1	.003	1	.002	2	0	1	0	1	0	1
30			min	0	1	-.003	4	-.003	3	0	1	0	1	0	1
31	M4	1	max	1678.466	3	-443.013	10	456.993	2	.385	10	.565	1	-.287	10
32			min	-3890.898	4	-1645.662	9	-478.607	1	-.158	6	-.539	2	-1.281	9
33		2	max	1647.109	3	-469.838	10	402.681	2	.385	10	.434	3	1.726	9
34			min	-3859.541	4	-1672.487	9	-424.295	1	-.158	6	-.445	4	.54	10
35		3	max	2686.757	3	1037.664	5	311.112	3	.044	9	.26	4	3.004	9
36			min	-2141.166	4	336.964	3	-311.77	4	-.197	6	-.255	3	.809	10
37		4	max	2655.4	3	949.652	5	293.008	3	.044	9	.292	3	1.333	9
38			min	-2109.809	4	299.323	3	-293.666	4	-.197	6	-.289	4	.194	10
39		5	max	2624.043	3	860.119	9	274.904	3	.044	9	.807	3	-.256	3
40			min	-2078.452	4	256.764	3	-275.562	4	-.197	6	-.805	4	-.863	8
41	M5	1	max	1300.077	4	-448.844	10	1065.771	1	.011	1	2.08	2	-.354	10
42			min	-3786.435	7	-1509.393	8	-1095.858	2	-.428	10	-2.045	1	-1.271	8
43		2	max	1268.72	4	-475.668	10	1011.459	1	.011	1	.387	3	1.515	8
44			min	-3779.122	7	-1564.413	8	-1041.546	2	-.428	10	-.406	4	.484	10
45		3	max	2522.799	4	1073.898	8	409.849	1	-.058	1	.185	2	2.622	8
46			min	-1975.199	3	334.788	1	-410.842	2	-.199	7	-.18	1	.828	1
47		4	max	2491.442	4	985.885	8	355.537	1	-.058	1	.514	1	.753	8
48			min	-1943.842	3	297.147	1	-356.53	2	-.199	7	-.51	2	.183	10

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[...	LC	z Shear[...	LC	Torque[...	LC	y-y Mom...	LC	z-z Mo...	LC
49		5	max	2460.085	4	882.866	8	301.226	1	-.058	1	1.109	1	-.246	1
50			min	-1912.485	3	254.588	1	-302.218	2	-.199	7	-1.107	2	-.952	6
51	M6	1	max	1913.301	2	-452.041	1	1154.45	4	-.015	4	2.398	3	-.342	1
52			min	-4188.948	1	-1459.768	6	-1189.852	3	-.135	8	-2.354	4	-1.227	6
53		2	max	1913.301	2	-478.866	1	1082.035	4	-.015	4	.307	3	1.469	6
54			min	-4188.948	1	-1514.788	6	-1117.436	3	-.135	8	-.327	4	.499	4
55		3	max	3098.398	2	1033.385	6	364.161	4	-.062	4	.154	3	2.525	6
56			min	-2552.471	1	332.575	4	-364.862	3	-.196	8	-.149	4	.821	4
57		4	max	3098.398	2	945.372	6	291.746	4	-.062	4	.446	4	.729	6
58			min	-2552.471	1	294.935	4	-292.446	3	-.196	8	-.442	3	.233	3
59		5	max	3098.398	2	842.353	6	219.33	4	-.062	4	.909	4	-.245	4
60			min	-2552.471	1	252.375	4	-220.031	3	-.196	8	-.906	3	-.901	7
61	M7	1	max	252.77	3	-159.6	2	493.569	4	.321	6	.813	3	.013	10
62			min	-251.376	4	-473.373	5	-512.392	3	-.043	10	-.798	4	-.274	8
63		2	max	278.289	3	-188.281	2	537.768	4	.321	6	.025	3	.5	7
64			min	-276.894	4	-539.045	5	-556.591	3	-.043	10	-.038	4	.112	1
65		3	max	332.295	3	537.6	10	581.967	4	.321	6	.788	4	1.513	10
66			min	-332.093	4	-609.347	5	-600.79	3	.094	9	-.829	3	.435	4
67		4	max	357.813	3	507.402	10	366.244	4	.138	10	.096	2	.743	10
68			min	-357.611	4	123.64	4	-348.702	3	-.072	9	-.101	1	.214	2
69		5	max	383.332	3	478.721	10	410.443	4	.138	10	.605	4	.098	5
70			min	-383.129	4	94.96	4	-392.901	3	-.072	9	-.583	3	-.046	9
71	M8	1	max	506.526	1	-93.363	9	574.817	2	.336	7	.756	1	.066	9
72			min	-502.561	2	-515.184	10	-593.091	1	.009	10	-.741	2	-.286	6
73		2	max	532.044	1	-122.044	9	589.55	2	.336	7	.118	2	.647	10
74			min	-528.079	2	-543.864	10	-607.824	1	.009	10	-.13	1	.025	2
75		3	max	557.562	1	181.409	9	604.283	2	.336	7	.999	2	1.472	10
76			min	-553.598	2	-574.062	10	-622.557	1	.103	2	-1.038	1	.353	2
77		4	max	106.324	4	402.26	5	455.319	2	.173	10	.149	1	.578	8
78			min	-108.132	3	101.986	2	-440.117	1	-.009	1	-.149	2	.18	2
79		5	max	80.805	4	336.588	5	470.052	2	.173	10	.534	2	.117	10
80			min	-82.614	3	73.306	2	-454.851	1	-.009	1	-.511	1	-.013	1
81	M9	1	max	407.383	4	-71.52	10	490.467	3	.327	8	.563	4	.04	4
82			min	-402.957	3	-478.33	6	-509.159	4	.096	3	-.549	3	-.257	7
83		2	max	407.383	4	-100.2	10	490.467	3	.327	8	.174	3	.541	8
84			min	-402.957	3	-544.002	6	-509.159	4	.096	3	-.188	4	-.052	10
85		3	max	407.383	4	-130.398	10	490.467	3	.327	8	.898	3	1.393	8
86			min	-402.957	3	-614.303	6	-509.159	4	.096	3	-.939	4	.118	10
87		4	max	371.467	2	422.58	8	378.418	3	.059	8	.25	4	.667	6
88			min	-371.402	1	42.859	10	-362.568	4	-.042	10	-.252	3	-.011	10
89		5	max	371.467	2	356.908	8	378.418	3	.059	8	.306	3	.165	9
90			min	-371.402	1	14.178	10	-362.568	4	-.042	10	-.284	4	-.052	10
91	M10	1	max	398.496	2	-112.886	2	1398.978	4	-.058	2	.432	4	.267	7
92			min	-537.149	1	-583.04	5	-1676.573	3	-.504	5	-.444	3	-.017	4
93		2	max	398.496	2	-113.044	2	1398.978	4	-.058	2	.947	4	.47	7
94			min	-537.149	1	-583.521	5	-1676.573	3	-.504	5	-1.062	3	.08	4
95		3	max	398.496	2	701.481	9	1398.978	4	.214	2	1.463	4	.673	7
96			min	-537.149	1	-586.428	5	-1676.573	3	-.504	5	-1.68	3	.178	4
97		4	max	376.605	4	700.528	9	1108.902	1	.408	6	.408	4	.378	5
98			min	-516.628	3	-.459	1	-840.127	2	-.154	9	-.524	3	.041	9
99		5	max	376.605	4	700.371	9	1108.902	1	.408	6	.157	4	.285	5
100			min	-516.628	3	-.616	1	-840.127	2	-.154	9	-.174	3	-.217	9
101	M11	1	max	500.871	3	-73.664	1	1134.41	2	-.002	1	.526	2	.313	5
102			min	-637.861	4	-619.715	6	-1412.544	1	-.535	6	-.541	1	-.129	2
103		2	max	500.871	3	-73.822	1	1134.41	2	-.002	1	.944	2	.521	5
104			min	-637.861	4	-620.196	6	-1412.544	1	-.535	6	-1.062	1	-.002	2
105		3	max	500.871	3	118.855	3	1376.576	4	.468	5	1.362	2	.73	5

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[...	LC	z Shear[...	LC	Torque[...	LC	y-y Mom...	LC	z-z Mo...	LC
106			min	-637.861	4	-623.103	6	-1412.544	1	-.535	6	-1.582	1	.125	2
107		4	max	403.207	3	295.511	5	1376.576	4	.468	5	.525	3	.427	5
108			min	-536.42	4	-20.761	2	-1107.05	3	.048	2	-.644	4	.032	2
109		5	max	403.207	3	295.031	5	1376.576	4	.468	5	.257	2	.329	8
110			min	-536.42	4	-20.918	2	-1107.05	3	.048	2	-.277	1	.039	2
111	M12	1	max	504.586	1	-60.194	4	1351.05	1	.004	4	.273	3	.298	8
112			min	-641.862	2	-597.39	7	-1628.018	2	-.515	7	-.286	4	-.117	3
113		2	max	504.586	1	-60.351	4	1351.05	1	.004	4	.708	1	.496	8
114			min	-641.862	2	-597.87	7	-1628.018	2	-.515	7	-.824	2	.009	3
115		3	max	579.25	1	-42.012	3	1351.05	1	.45	8	1.206	1	.695	8
116			min	-718.287	2	-600.777	7	-1628.018	2	-.515	7	-1.423	2	.134	3
117		4	max	579.25	1	286.216	8	1470.426	2	.45	8	.567	1	.397	6
118			min	-718.287	2	-42.965	3	-1201.375	1	.026	3	-.683	2	.056	3
119		5	max	579.25	1	285.735	8	1470.426	2	.45	8	.135	3	.302	7
120			min	-718.287	2	-43.122	3	-1201.375	1	.026	3	-.152	4	.068	10
121	MP1A	1	max	0	1	.06	4	.087	1	0	7	0	1	0	1
122			min	0	1	-.637	7	-.577	6	0	4	0	1	0	1
123		2	max	399.896	6	313.688	4	548.094	1	.032	1	.342	1	.245	3
124			min	-33.111	1	-327.396	3	-516.628	2	-.041	2	-.324	2	-.244	4
125		3	max	-142.904	1	341.135	3	718.75	2	0	3	.743	1	.383	3
126			min	-420.775	5	-340.902	4	-718.503	1	0	8	-.744	2	-.382	4
127		4	max	-13.148	1	34.301	3	34.005	2	0	3	.033	1	.034	3
128			min	-32.796	5	-34.069	4	-33.757	1	0	8	-.034	2	-.034	4
129		5	max	0	1	1.094	8	1.222	5	0	3	0	5	0	4
130			min	0	5	-.159	3	-.455	2	0	8	0	2	0	3
131	MP2A	1	max	0	1	.203	8	.008	1	0	3	0	1	0	1
132			min	0	1	-.012	3	-.058	6	0	8	0	1	0	1
133		2	max	203.618	6	196.897	4	189.106	1	.033	3	.084	3	.084	3
134			min	-51.446	1	-177.709	3	-165.446	2	-.041	4	-.073	4	-.1	4
135		3	max	-28.848	4	119.936	3	169.081	2	0	7	.222	1	.174	3
136			min	-112.665	5	-119.986	4	-169.064	1	0	4	-.222	2	-.175	4
137		4	max	-8.33	4	28.397	3	28.41	2	0	7	.028	1	.028	3
138			min	-25.85	5	-28.447	4	-28.393	1	0	4	-.028	2	-.028	4
139		5	max	0	4	.02	4	.19	5	0	7	0	2	0	4
140			min	0	9	-.344	7	-.057	2	0	4	0	9	0	3
141	MP1B	1	max	0	1	.679	8	.604	8	0	8	0	1	0	1
142			min	0	1	-.064	3	-.063	3	0	3	0	1	0	1
143		2	max	394.519	5	347.961	2	428.935	4	.017	3	.325	4	.335	3
144			min	16.991	2	-336.774	1	-457.078	3	-.026	4	-.345	3	-.336	4
145		3	max	-142.903	9	377.028	1	540.566	3	0	2	.567	4	.409	1
146			min	-420.774	8	-377.281	2	-540.829	4	0	5	-.566	3	-.41	2
147		4	max	-13.148	9	29.482	1	29.38	3	0	2	.029	4	.029	1
148			min	-32.796	8	-29.735	2	-29.642	4	0	5	-.029	3	-.03	2
149		5	max	0	7	.108	2	.201	4	0	2	0	3	0	3
150			min	0	10	-1.134	5	-1.156	7	0	5	0	4	0	4
151	MP2B	1	max	0	1	.012	2	.054	5	0	2	0	1	0	1
152			min	0	1	-.192	5	-.01	2	0	5	0	1	0	1
153		2	max	212.556	8	131.722	4	214.345	4	.018	4	.057	1	.122	1
154			min	-106.009	3	-150.881	3	-238.915	3	-.026	3	-.069	2	-.106	2
155		3	max	-28.848	9	114.545	1	135.783	3	0	6	.182	4	.162	1
156			min	-112.664	7	-114.5	2	-135.799	4	0	1	-.182	3	-.161	2
157		4	max	-8.33	9	24.633	1	24.596	3	0	6	.025	4	.025	1
158			min	-25.85	7	-24.587	2	-24.612	4	0	1	-.025	3	-.025	2
159		5	max	0	1	.31	6	.041	4	0	6	0	3	0	3
160			min	0	7	-.02	1	-.168	7	0	1	0	4	0	4
161	MP1C	1	max	0	1	.648	5	.551	5	0	5	0	1	0	1
162			min	0	1	-.091	2	-.034	2	0	2	0	1	0	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[...	LC	z Shear[...	LC	Torque[...	LC	y-y Mom...	LC	z-z Mo...	LC
163		2	max	400.767	7	366.747	1	373.247	3	.013	4	.174	1	.315	2
164			min	-38.335	4	-354.845	2	-401.918	4	-.022	3	-.193	2	-.315	1
165		3	max	-142.904	4	376.992	2	540.441	4	0	1	.566	3	.409	2
166			min	-420.775	8	-377.22	1	-540.686	3	0	6	-.565	4	-.41	1
167		4	max	-13.148	4	29.446	2	29.254	4	0	1	.029	3	.029	2
168			min	-32.796	8	-29.674	1	-29.499	3	0	6	-.029	4	-.03	1
169		5	max	0	4	.169	1	.344	3	0	1	0	3	0	3
170			min	0	8	-1.065	6	-1.169	8	0	6	0	4	0	4
171	MP2C	1	max	0	1	.009	1	.054	7	0	1	0	1	0	1
172			min	0	1	-.189	6	-.012	10	0	6	0	1	0	1
173		2	max	213.839	5	206.527	1	184.302	1	.043	1	.082	2	.108	3
174			min	-99.969	2	-227.17	2	-211.959	2	-.051	2	-.096	1	-.091	4
175		3	max	-28.848	3	114.548	2	135.778	4	0	5	.182	3	.162	2
176			min	-112.664	8	-114.502	1	-135.795	3	0	2	-.182	4	-.161	1
177		4	max	-8.33	3	24.636	2	24.591	4	0	5	.025	3	.025	2
178			min	-25.85	8	-24.59	1	-24.608	3	0	2	-.025	4	-.025	1
179		5	max	0	1	.312	5	.045	3	0	5	0	2	0	3
180			min	0	1	-.017	2	-.177	8	0	2	0	1	0	4
181	M19	1	max	135.177	1	149.788	2	24.156	4	.019	2	.039	1	.248	2
182			min	-169.727	2	-137.884	1	-19.353	3	-.012	1	-.049	2	-.25	1
183		2	max	140.245	1	146.446	2	24.411	2	.019	2	.025	1	.129	2
184			min	-174.796	2	-141.225	1	-19.506	1	-.012	1	-.031	2	-.138	1
185		3	max	145.313	1	143.105	2	27.491	2	.019	2	.008	1	.013	2
186			min	-179.864	2	-144.567	1	-22.586	1	-.012	1	-.01	2	-.024	1
187		4	max	150.381	1	139.763	2	30.571	2	.019	2	.013	2	.094	1
188			min	-184.932	2	-147.908	1	-25.666	1	-.012	1	-.011	1	-.1	2
189		5	max	155.45	1	136.422	2	33.651	2	.019	2	.039	2	.214	1
190			min	-190	2	-151.25	1	-28.746	1	-.012	1	-.033	1	-.211	2
191	M20	1	max	110.002	4	155.794	3	19.446	2	.018	1	.019	4	.265	3
192			min	-141.079	3	-143.107	4	-14.434	1	-.012	2	-.029	3	-.265	4
193		2	max	110.259	4	152.453	3	14.608	3	.018	1	.011	4	.141	3
194			min	-141.336	3	-146.448	4	-9.582	4	-.012	2	-.018	3	-.149	4
195		3	max	110.516	4	149.111	3	14.614	3	.018	1	.011	2	.02	3
196			min	-141.593	3	-149.79	4	-9.588	4	-.012	2	-.013	1	-.03	4
197		4	max	110.773	4	145.77	3	19.807	1	.018	1	.006	3	.092	4
198			min	-141.849	3	-153.131	4	-14.795	2	-.012	2	-.004	4	-.098	3
199		5	max	111.029	4	142.428	3	31.22	1	.018	1	.019	1	.216	4
200			min	-142.106	3	-156.473	4	-26.208	2	-.012	2	-.013	2	-.214	3
201	M21	1	max	53.015	3	101.178	1	16.162	1	.022	4	.02	3	.166	1
202			min	-83.134	4	-87.746	2	-10.953	2	-.016	3	-.031	4	-.165	2
203		2	max	57.826	3	97.836	1	13.527	1	.022	4	.019	3	.086	1
204			min	-87.945	4	-91.087	2	-8.317	2	-.016	3	-.026	4	-.093	2
205		3	max	62.637	3	94.495	1	20.12	4	.022	4	.011	3	.009	1
206			min	-92.757	4	-94.429	2	-14.825	3	-.016	3	-.013	4	-.019	2
207		4	max	67.449	3	91.153	1	28.904	4	.022	4	.006	4	.059	2
208			min	-97.568	4	-97.77	2	-23.609	3	-.016	3	-.005	3	-.065	1
209		5	max	72.26	3	87.811	1	37.688	4	.022	4	.033	4	.138	2
210			min	-102.379	4	-101.112	2	-32.393	3	-.016	3	-.027	3	-.137	1
211	M22	1	max	2741.694	6	136.863	5	33.037	4	0	3	.023	3	.311	5
212			min	869.532	10	20.024	2	-13.304	3	0	4	-.088	8	.09	2
213		2	max	2762.089	6	116.467	5	59.523	4	0	3	-.005	3	.18	6
214			min	873.72	10	27.755	2	-39.79	3	0	4	-.054	8	.057	1
215		3	max	2782.485	6	98.018	6	86.009	4	0	3	.046	4	.069	6
216			min	877.908	10	31.094	1	-66.275	3	0	4	-.061	3	.015	1
217		4	max	2802.881	6	85.071	6	112.494	4	0	3	.151	4	-.009	1
218			min	882.096	10	12.339	1	-92.761	3	0	4	-.145	3	-.028	6
219		5	max	2823.277	6	72.124	6	138.98	4	0	3	.284	4	-.012	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[...	LC	z Shear[...	LC	Torque[...	LC	y-y Mom...	LC	z-z Mo...	LC
220			min	886.284	10	-6.417	1	-119.247	3	0	4	-.258	3	-.111	6
221	M23	1	max	5483.362	7	149.052	8	32.377	5	0	10	.226	10	.351	8
222			min	1909.954	3	23.691	3	-75.468	10	0	4	-.102	6	.101	3
223		2	max	5503.639	7	128.775	8	34.642	6	0	10	.144	10	.213	9
224			min	1911.662	2	31.001	3	-77.613	10	0	4	-.07	2	.067	10
225		3	max	5523.917	7	113.494	9	43.868	2	0	10	.061	10	.091	9
226			min	1908.415	2	34.731	10	-79.759	10	0	4	-.043	3	.021	4
227		4	max	5544.194	7	108.858	9	65.324	2	0	10	.024	2	-.007	10
228			min	1905.168	2	18.495	4	-81.905	10	0	4	-.025	10	-.027	9
229		5	max	5564.472	7	104.221	9	86.78	2	0	10	.104	2	-.019	4
230			min	1901.921	2	.16	4	-84.05	10	0	4	-.113	10	-.14	9
231	M24	1	max	2760.915	8	139.214	7	83.467	10	0	3	.025	2	.318	6
232			min	941.686	9	22.324	4	-13.49	2	0	10	-.241	10	.096	4
233		2	max	2781.192	8	118.936	7	85.613	10	0	3	.024	4	.185	8
234			min	948.074	9	29.634	4	-34.946	2	0	10	-.152	10	.058	3
235		3	max	2801.47	8	101.054	8	87.758	10	0	3	.04	4	.071	8
236			min	951.636	3	31.561	3	-56.401	2	0	10	-.06	10	.015	3
237		4	max	2821.747	8	87.988	8	96.325	1	0	3	.125	1	-.008	10
238			min	944.326	3	13.227	3	-77.857	2	0	10	-.12	2	-.029	8
239		5	max	2842.024	8	74.923	8	117.781	1	0	3	.239	1	-.013	3
240			min	937.017	3	-5.108	3	-99.313	2	0	10	-.214	2	-.115	8
241	M25	1	max	2760.915	8	139.214	7	83.467	10	0	3	.025	2	.318	6
242			min	941.686	9	22.324	4	-13.49	2	0	10	-.241	10	.096	4
243		2	max	2781.192	8	118.936	7	85.613	10	0	3	.024	4	.185	8
244			min	948.074	9	29.634	4	-34.946	2	0	10	-.152	10	.058	3
245		3	max	2801.47	8	101.054	8	87.758	10	0	3	.04	4	.071	8
246			min	951.636	3	31.561	3	-56.401	2	0	10	-.06	10	.015	3
247		4	max	2821.747	8	87.988	8	96.325	1	0	3	.125	1	-.008	10
248			min	944.326	3	13.227	3	-77.857	2	0	10	-.12	2	-.029	8
249		5	max	2842.024	8	74.923	8	117.781	1	0	3	.239	1	-.013	3
250			min	937.017	3	-5.108	3	-99.313	2	0	10	-.214	2	-.115	8
251	M26	1	max	2741.694	6	136.863	5	33.037	4	0	3	.023	3	.311	5
252			min	869.532	10	20.024	2	-13.304	3	0	4	-.088	8	.09	2
253		2	max	2762.089	6	116.467	5	59.523	4	0	3	-.005	3	.18	6
254			min	873.72	10	27.755	2	-39.79	3	0	4	-.054	8	.057	1
255		3	max	2782.485	6	98.018	6	86.009	4	0	3	.046	4	.069	6
256			min	877.908	10	31.094	1	-66.275	3	0	4	-.061	3	.015	1
257		4	max	2802.881	6	85.071	6	112.494	4	0	3	.151	4	-.009	1
258			min	882.096	10	12.339	1	-92.761	3	0	4	-.145	3	-.028	6
259		5	max	2823.277	6	72.124	6	138.98	4	0	3	.284	4	-.012	1
260			min	886.284	10	-6.417	1	-119.247	3	0	4	-.258	3	-.111	6

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	...	...	phi*Pn...	phi*Pn...	phi*M...	phi*M...	...	Eqn
1	MP1A	PIPE_2.5	.397	3.167	2	.065	3.167		2	30038...	50715	3.596	3.596	...	H1-1b
2	MP1B	PIPE_2.5	.359	3.167	4	.053	3.167		4	30038...	50715	3.596	3.596	...	H1-1b
3	MP1C	PIPE_2.5	.343	3.167	3	.052	3.167		3	30038...	50715	3.596	3.596	...	H1-1b
4	M5	HSS4x4x4	.267	3.021	5	.088	3.021	y	10	11196...	139518	16.181	16.181	...	H1-1b
5	M4	HSS4x4x4	.259	3.021	7	.073	3.021	y	6	11196...	139518	16.181	16.181	...	H1-1b
6	M6	HSS4x4x4	.257	3.021	8	.075	3.021	y	8	11196...	139518	16.181	16.181	...	H1-1b
7	M23	LL2.5x2....	.228	0	6	.006	0	y	8	57466...	81000	4.584	2.213	...	H1-1b
8	MP2C	PIPE_2.0	.206	3.167	2	.065	3.167		2	14916...	32130	1.872	1.872	...	H1-1b
9	MP2A	PIPE_2.0	.206	3.167	2	.049	3.167		4	14916...	32130	1.872	1.872	...	H1-1b
10	MP2B	PIPE_2.0	.193	3.167	4	.047	3.167		3	14916...	32130	1.872	1.872	...	H1-1b
11	M24	LL2.5x2....	.183	0	7	.006	0	y	7	57466...	81000	4.584	2.213	...	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	...	...	phi*Pn...	phi*Pn...	phi*M...	phi*M...	...	Eqn
12	M25	LL2.5x2....	.183	0	7	.006	0	y	7	57466...	81000	4.584	2.213	...	H1-1b
13	M22	LL2.5x2....	.182	0	8	.007	4.243	z	4	57466...	81000	4.584	2.213	...	H1-1b
14	M26	LL2.5x2....	.182	0	8	.007	4.243	z	4	57466...	81000	4.584	2.213	...	H1-1b
15	M1	PIPE_3.0	.168	12.234	2	.098	13.896		2	21266...	65205	5.749	5.749	...	H1-1b
16	M3	PIPE_3.0	.148	9.667	7	.059	13.896		4	21266...	65205	5.749	5.749	...	H1-1b
17	M2	PIPE_3.0	.144	9.667	6	.084	13.896		3	21266...	65205	5.749	5.749	...	H1-1b
18	M9	HSS4x4x4	.102	2.95	8	.040	2.95	y	8	12060...	139518	16.181	16.181	...	H1-1b
19	M20	PIPE_2.0	.101	0	3	.018	3.209		4	38477...	45900	2.674	2.674	...	H1-1b
20	M8	HSS4x4x4	.101	2.95	1	.039	2.95	y	5	12060...	139518	16.181	16.181	...	H1-1b
21	M7	HSS4x4x4	.099	2.95	10	.039	2.95	y	6	12060...	139518	16.181	16.181	...	H1-1b
22	M19	PIPE_2.0	.097	0	1	.019	0		2	38477...	45900	2.674	2.674	...	H1-1b
23	M21	PIPE_2.0	.063	0	1	.015	0		4	38477...	45900	2.674	2.674	...	H1-1b

Envelope AISI S100-10: LRFD Cold Formed Steel Code Checks

Member	Shape	Code ...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pn[lb]	phi*Tn[lb]	phi*Mny...	phi*Mnz...	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/O...	Pnt/Om...	Mny/O...	Mnz/O...	Vny/O...	Vnz/O...	Cb	Eqn
No Data to Print ...																

EXHIBIT 9

Transcom Engineering, Inc.
Wireless Network Design and Deployment

Radio Frequency Emissions Analysis Report

T-MOBILE Existing Facility

Site ID: CT11525A

CT525_SBA Pomfret #2
398 Pomfret Street
Pomfret, CT 06259

June 17, 2019

Transcom Engineering Project Number: 737001-0167

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**7.04 %**

June 17, 2019

T-MOBILE
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 6009

Emissions Analysis for Site: **CT11525A – CT525_SBA Pomfret #2**

Transcom Engineering, Inc ("Transcom") was directed to analyze the proposed upgrades to the T-MOBILE facility located at **398 Pomfret Street, Pomfret, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz & 700 MHz bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **398 Pomfret Street, Pomfret, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	1900 MHz (PCS)	4	40
GSM	1900 MHz (PCS)	1	15
LTE / 5G NR	600 MHz	2	40
LTE	700 MHz	2	20

Table 1: Channel Data Table

The following antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz, 700 MHz, 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXV18-206516S-C-A20	147
A	2	RFS APXVAARR24_43-U-NA20	147
B	1	RFS APXV18-206516S-C-A20	147
B	2	RFS APXVAARR24_43-U-NA20	147
C	1	RFS APXV18-206516S-C-A20	147
C	2	RFS APXVAARR24_43-U-NA20	147

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.

Cable losses were factored in the calculations for this site. Since all **1900 MHz (PCS)** radios are ground mounted the following cable loss values were used. For each ground mounted **1900 MHz (PCS)** radio there was **1.85 dB** of cable loss calculated into the system gains / losses for this site. These values were calculated based upon the manufacturers specifications for **180 feet** of **1-5/8”** coax.

RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXV18-206516S-C-A20	1900 MHz (PCS)	16.3	5	175	4,875.71	0.89
Antenna A2	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	1.04
						Sector A Composite MPE%	**1.93**
Antenna B1	RFS APXV18-206516S-C-A20	1900 MHz (PCS)	16.3	5	175	4,875.71	0.89
Antenna B2	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	1.04
						Sector B Composite MPE%	**1.93**
Antenna C1	RFS APXV18-206516S-C-A20	1900 MHz (PCS)	16.3	5	175	4,875.71	0.89
Antenna C2	RFS APXVAARR24_43-U-NA20	600 MHz / 700 MHz	12.95 / 13.35	4	120	2,443.03	1.04
						Sector C Composite MPE%	**1.93**

Table 3: T-MOBILE Emissions Levels

The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	**MPE%**
T-MOBILE – Max Per Sector Value	**1.93 %**
Verizon Wireless	2.98 %
Sprint	2.13 %
Site Total MPE %:	**7.04 %**

Table 4: All Carrier MPE Contributions

T-MOBILE Sector A Total:	1.93 %
T-MOBILE Sector B Total:	1.93 %
T-MOBILE Sector C Total:	1.93 %
Site Total:	7.04 %

Table 5: Site MPE Summary

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile 1900 MHz (PCS) LTE	4	1,114.45	147	8.06	1900 MHz (PCS)	1000	0.81%
T-Mobile 1900 MHz (PCS) GSM	1	417.92	147	0.76	1900 MHz (PCS)	1000	0.08%
T-Mobile 600 MHz LTE / 5G NR	2	788.97	147	2.85	600 MHz	400	0.71%
T-Mobile 700 MHz LTE	2	432.54	147	1.56	700 MHz	467	0.33%
						Total:	**1.93%**

Table 6: T-MOBILE Maximum Sector MPE Power Values

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-MOBILE facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-MOBILE Sector	Power Density Value (%)
Sector A:	1.93 %
Sector B:	1.93 %
Sector C:	1.93 %
T-MOBILE Maximum Total (per sector):	1.93 %
Site Total:	7.04 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **7.04 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

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