NORTHEAST
SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
420 Main Street, Box 2 Sturbridge MA 01566
860-209-4690
denise@northeastsitesolutions.com

May 14, 2018

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Exempt Modification Application

136 Bulls Bridge Road, South Kent, CT 06785
Latitude: 41.68162500
Longitude: -73.48666667
T-Mobile Site#: CTNH541A-MWAAV-PI

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing 181'-6"-foot monopole tower located at 136 Bulls Bridge Road, South Kent, CT 06785. T-Mobile currently has approval for six (6) antennas at the 170-foot level of the existing 181'-6"-foot tower. The tower is owned by Crown Castle and the property is owned by South Kent School Corp. T-Mobile now intends to install two (2) new antenna and one (1) IBR1300 Dish. The new equipment would be installed at the 170-foot level of the tower.

Planned Modifications:
Remove:
NONE

Remove and Replace:
NONE

Install New:
(1)IBR1300 Dish
(1)Fiber line
(2)CAT6 Cables
(1) APX18 Antenna – 1900-2100 Mhz
(1) LNX-6515DS Antenna – 700 Mhz

Existing to Remain:
(2) Hybrid Lines
(9) RRU
(3) APX16 Antenna – 1900-2100 Mhz
(3) LNX-6515DS Antenna – 700 Mhz

This facility was first approved by the Connecticut Siting Council. Docket No. 162 – Approved in 1994 to erect Monopole tower, telecommunication equipment and tower not to exceed 197-feet. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to First Selectman Bruce K Adams, Elected Official and Donna Hayes, Land Use for the Town of Kent, as well as the property owner and the tower owner.

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 modifications 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 modifications 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 telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Denise Sabo
Mobile: 860-209-4690
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

Attachments
cc: Bruce K Adams, First Selectman- as elected official
Donna Hayes, Land Use
Crown Castle - as tower owner
South Kent School Corp – as property owner

Exhibit A

DOCKET NO. 162 - An application of Springwich Cellular Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility located on the grounds of South Kent School off Bulls Bridge Road in Kent, Connecticut. : Connecticut : Siting : Council : February 24, 1994

DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications tower at the proposed site in Kent, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need as provided by section 16-50k of the Connecticut General Statutes (CGS), be issued to Springwich Cellular Limited Partnership (Springwich), for the construction, operation, and maintenance of a cellular telecommunications tower at the proposed site on property owned by the South Kent School, off Bulls Bridge Road, Kent, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The self-supporting monopole tower shall be no taller than necessary to provide the proposed cellular communications service and in no event shall the tower structure exceed a total height of 197 feet above ground level with antennas and appurtenances.

2. Prior to the commencement of construction, the Certificate holder shall prepare a Development and Management (D&M) Plan for this site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M Plan shall include detailed plans for the tower and tower foundation; the locations of all antennas to be attached to this tower to ensure maximum sharing of the tower; detailed plans for an accessway from a public roadway, including all improvements and gates installed in the accessway; utility line installation; equipment building plans including elevations; detailed plans for site clearing and tree trimming; detailed plans for erosion and sedimentation control; and plans for the installation of the security fence. The D&M Plan shall be submitted to the Council for approval prior to the commencement of tower construction.

3. The Certificate holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted herein shall be brought into compliance with such standards.

4. The Certificate holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.

5. The Certificate holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. Should any agreement, including sharing of this tower, be reached prior to construction of the tower, detailed plans for the third party's equipment shall be included in the D&M Plan.

6. If the facility does not initially provide, or permanently ceases to provide, cellular or other services following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or re-application for any continued or new use shall be made to the Council before any such use is made.

7. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Litchfield County Times, the Kent Good Times Dispatch, and the Waterbury Republican-American.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The parties and intervenors to this proceeding are:

APPLICANT	ITS REPRESENTATIVE
Springwich Cellular Limited Partnership	Peter J. Tyrrell, Esq. Senior Attorney Springwich Cellular Limited Partnership 227 Church Street-Room 1021 New Haven, CT 06506 (203) 771-7381

PARTY	ITS REPRESENTATIVE
Litchfield County Cellular Inc.	Andrew N. Davis, Esq. John J. Russotto, Esq. Brown, Rudnick, Freed & Gesmer, P.C. 90 State House Square Hartford, CT 06103 (203) 525-8008

INTERVENOR	ITS REPRESENTATIVE
Bell Atlantic Metro Mobile	Steven R. Humphrey, Esq. Brian C.S. Freeman, Esq. Robinson & Cole One Commercial Plaza Hartford, CT 06103-3597 (203) 275-8200

7652E

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in Docket No. 162, and voted as follows to approve the facility located on the grounds of South Kent School off Bulls Bridge Road in Kent, Connecticut:

Council Members	Vote Cast
Mortimer A. Gelston Chairman	Yes
Commissioner Reginald J. Smith Designee: Richard G. Patterson	Abstain
Commissioner Timothy R.E. Keeney Designee: Brian Emerick	Absent
Harry E. Covey	Yes
Daniel P. Lynch, Jr.	Yes
Gloria Dibble Pond	Absent
William H. Smith	Absent
Colin C. Tait	Yes
Dana J. Wright	Yes

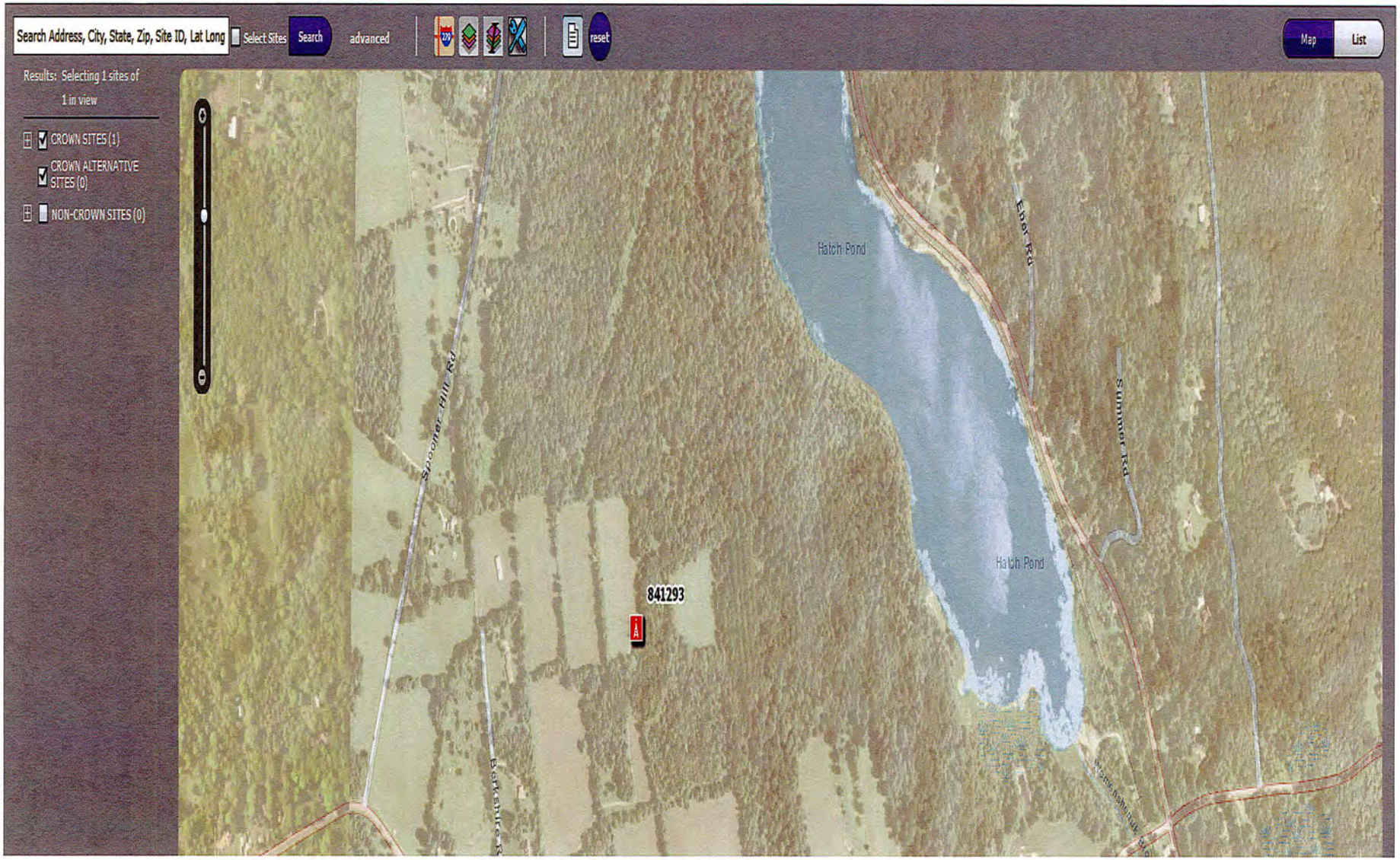
Dated at New Britain, Connecticut, February 24, 1994.

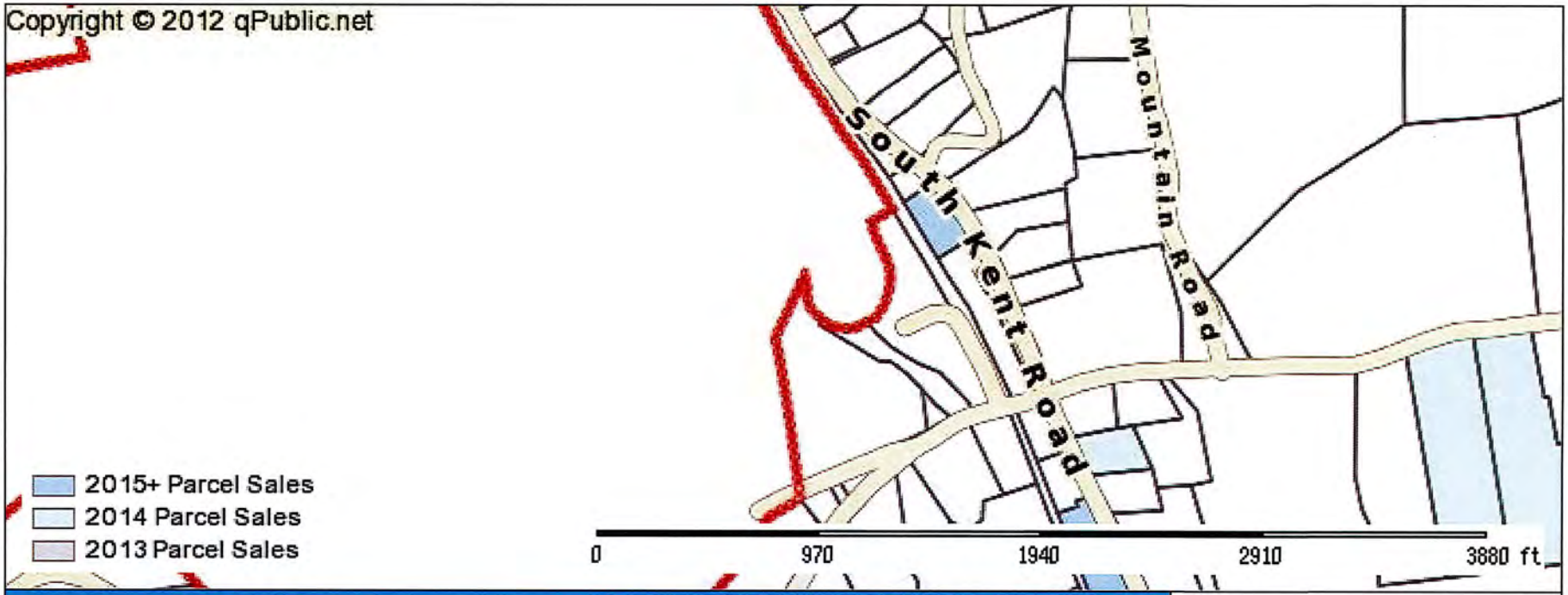
7666E-2
TEF:mmb

Exhibit B

CCIsites™ report issue privacy terms of use help CROWN CASTLE

Home | Site Information | Application Tracking | Project Information | Operations Information | LRM | Real Estate | PMT

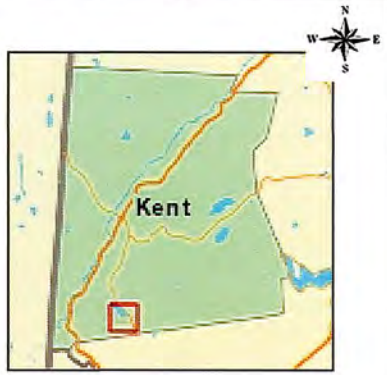




Town of Kent

Parcel: 580 Acres: 117

Name:	SOUTH KENT SCHOOL CORP	Land Value:	2211600
Site:	40 BULLS BRIDGE RD	Improvement Value:	11614000
Sale:	$0 on 0000-00-00 Reason= Qual=U	Accessory Value:	93500
Mail:	40 BULLS BRIDGE RD SOUTH KENT, CT 06785	Total Value:	14301800



The Town of Kent makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll.
Date printed: 11/10/16 : 10:12:12

40 BULLS BRIDGE RD

Location 40 BULLS BRIDGE RD

Mblu 6/ 39/ 9/ /

Acct# 00019000

Owner SOUTH KENT SCHOOL CORP

Assessment $10,012,200

Appraisal $14,301,800

PID 580

Building Count 35

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$12,090,200	$2,211,600	$14,301,800
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$8,464,000	$1,548,200	$10,012,200

Owner of Record

Owner SOUTH KENT SCHOOL CORP
Co-Owner

Sale Price $0
Certificate
Book & Page
Sale Date

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
SOUTH KENT SCHOOL CORP	$0			

Building Information

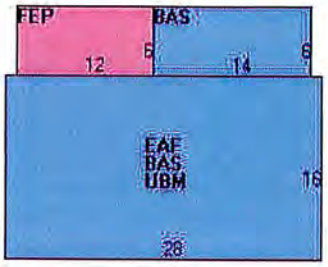
Building 1 : Section 1

Year Built: 1941
Living Area: 689
Replacement Cost: $76,934
Replacement Cost Less Depreciation: $57,700

Building Attributes	
Field	**Description**
Style	Cape Cod
Model	Residential

Grade:	03
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Wood Shingle
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	00
Total Bthrms:	0
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	1 Room
Bath Style:	
Kitchen Style:	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	532	532
EAF	Attic, Expansion, Finished	448	157
FEP	Porch, Enclosed, Finished	72	0
UBM	Basement, Unfinished	448	0
		1,500	689

Building 1 : Section 1

Year Built: 1941
Living Area: 0
Replacement Cost: $76,934
Replacement Cost Less Depreciation: $57,700

Building Attributes	
Field	**Description**
Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	

Building Layout

Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

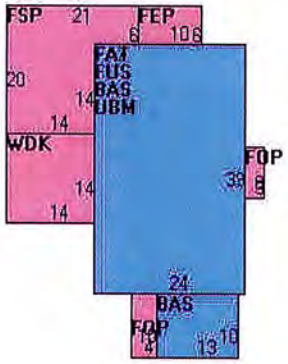
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	

Building 2 : Section 1

Year Built: 1945
Living Area: 2,189
Replacement Cost: $202,139
Replacement Cost Less Depreciation: $119,300

Building Attributes : Bldg 2 of 35	
Field	**Description**
Style	Old Style
Model	Residential
Grade:	03
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	Central
Total Bedrooms:	6 Bedrooms
Total Bthrms:	4
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	10 Rooms
Bath Style:	Average

Building Layout



Buiiding Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,066	1,066
FUS	Upper Story, Finished	936	936
FAT	Attic, Finished	936	187
FEP	Porch, Enclosed, Finished	60	0
FOP	Porch, Open, Finished	64	0
FSP	Porch, Screen, Finished	322	0
UBM	Basement, Unfinished	936	0
WDK	Deck, Wood	196	0
		4,516	2,189

Kitchen Style:	Average

Building 3 : Section 1

Year Built: 1950
Living Area: 1,760
Replacement Cost: $38,069
Replacement Cost Less Depreciation: $25,500

Building Attributes : Bldg 3 of 35	
Field	**Description**
STYLE	Quonset Bldg
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Wall Brd/Wood
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	10
% Comn Wall	

Building Layout

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,760	1,760
		1,760	1,760

Building 5 : Section 1

Year Built: 1950
Living Area: 3,660

Replacement Cost: $337,273
Replacement Cost Less Depreciation: $263,100

Building Attributes : Bldg 5 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Metal/Tin
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	2
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Layout

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,830	1,830
FBM	Basement, Finished	1,830	1,830
FEP	Porch, Enclosed, Finished	64	0
		3,724	3,660

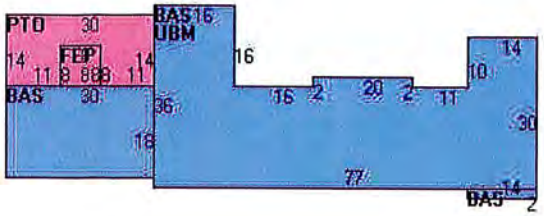
Building 6 : Section 1

Year Built: 1935
Living Area: 2,544
Replacement Cost: $338,025
Replacement Cost Less Depreciation: $253,500

Building Attributes : Bldg 6 of 35	
Field	**Description**
STYLE	Dormitory

MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
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	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	04
Total Baths	2
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Layout

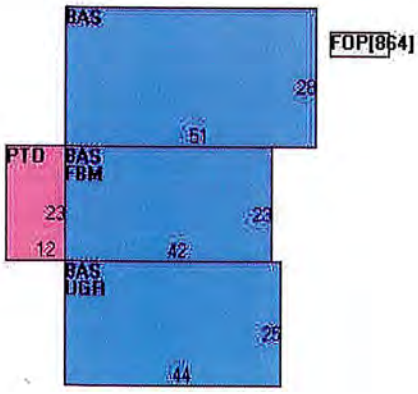


Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,544	2,544
FEP	Porch, Enclosed, Finished	64	0
PTO	Patio	356	0
UBM	Basement, Unfinished	1,976	0
		4,940	2,544

Building 7 : Section 1

Year Built: 1966
Living Area: 4,460
Replacement Cost: $212,729
Replacement Cost Less Depreciation: $174,400

Building Layout



Building Attributes : Bldg 7 of 35	
Field	Description
STYLE	Auditorium
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Clapboard

Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	4
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	3,494	3,494
FBM	Basement, Finished	966	966
FOP	Porch, Open, Finished	864	0
PTO	Patio	276	0
UGR	Bsmt Garage	1,100	0
		6,700	4,460

Building 8 : Section 1

Year Built: 1966
Living Area: 985
Replacement Cost: $185,791
Replacement Cost Less Depreciation: $152,300

Building Attributes : Bldg 8 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	K PINE/A WD

Building Layout

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	985	985
		985	985

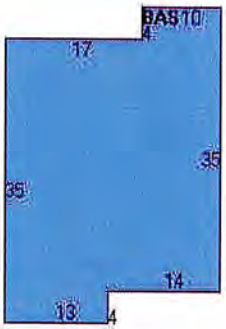
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building 9 : Section 1

Year Built: 1966
Living Area: 929
Replacement Cost: $178,117
Replacement Cost Less Depreciation: $146,100

Building Attributes : Bldg 9 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	K PINE/A WD
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	929	929
		929	929

Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building 10 : Section 1

Year Built: 1988
Living Area: 1,846
Replacement Cost: $79,747
Replacement Cost Less Depreciation: $68,600

Building Attributes : Bldg 10 of 35	
Field	**Description**
STYLE	Commercial
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Board & Batten
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	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	1-1C

Building Layout

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,846	1,846
		1,846	1,846

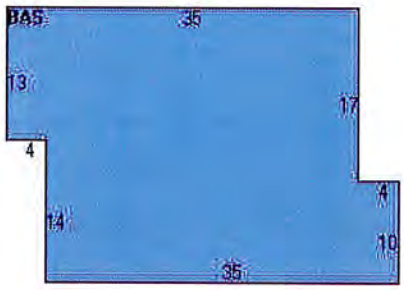
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	10
% Comn Wall	

Building 11 : Section 1

Year Built: 1966
Living Area: 929
Replacement Cost: $175,358
Replacement Cost Less Depreciation: $143,800

Building Attributes : Bldg 11 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	K PINE/A WD
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	06
Total Baths	1
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE

Building Layout



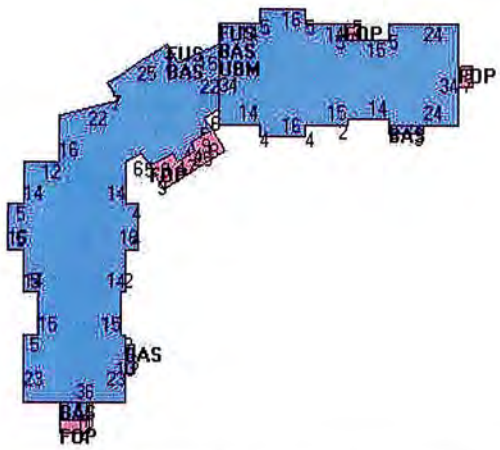
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	929	929
		929	929

Wall Height	8
% Comn Wall	

Building 12 : Section 1

Year Built: 2006
Living Area: 14,882
Replacement Cost: $1,196,673
Replacement Cost Less Depreciation: $1,112,900

Building Layout



Building Attributes : Bldg 12 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	K PINE/A WD
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Gas
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	3
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	7,504	7,504
FUS	Upper Story, Finished	7,378	7,378
FOP	Porch, Open, Finished	292	0
UBM	Basement, Unfinished	2,863	0
		18,037	14,882

Building 13 : Section 1

Year Built: 1959

Building Layout

Living Area: 3,844
Replacement Cost: $330,593
Replacement Cost Less Depreciation: $264,500

Building Attributes : Bldg 13 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	3
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,922	1,922
FBM	Basement, Finished	1,922	1,922
		3,844	3,844

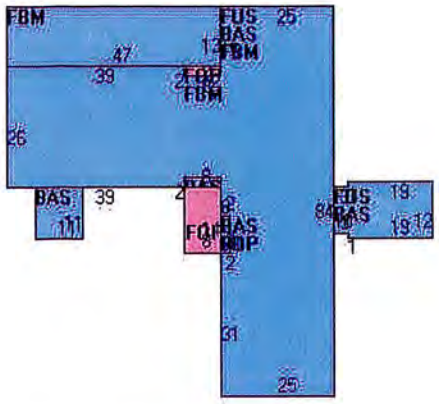
Building 14 : Section 1

Year Built: 1930
Living Area: 11,118
Replacement Cost: $757,131
Replacement Cost Less Depreciation: $567,800

Building Attributes : Bldg 14 of 35	
Field	**Description**

STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	6
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
FBM	Basement, Finished	3,901	3,901
BAS	First Floor	3,685	3,685
FUS	Upper Story, Finished	3,532	3,532
FOP	Porch, Open, Finished	160	0
		11,278	11,118

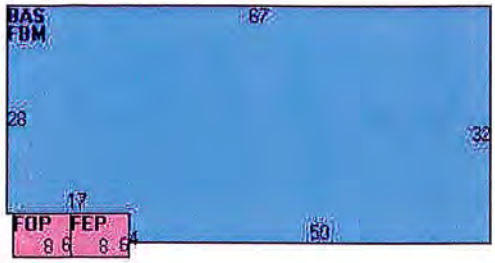
Building 15 : Section 1

Year Built: 1964
Living Area: 4,152
Replacement Cost: $408,672
Replacement Cost Less Depreciation: $326,900

Building Attributes : Bldg 15 of 35	
Field	**Description**
STYLE	Library
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	

Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	2
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	

Building Layout



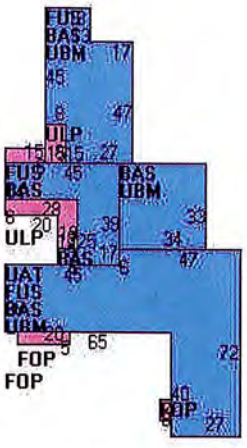
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	2,076	2,076
FBM	Basement, Finished	2,076	2,076
FEP	Porch, Enclosed, Finished	48	0
FOP	Porch, Open, Finished	48	0
		4,248	4,152

Building 16 : Section 1

Year Built: 1920
Living Area: 14,306
Replacement Cost: $1,701,529
Replacement Cost Less Depreciation: $1,276,100

Building Attributes : Bldg 16 of 35	
Field	**Description**
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	7,738	7,738

Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	7
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

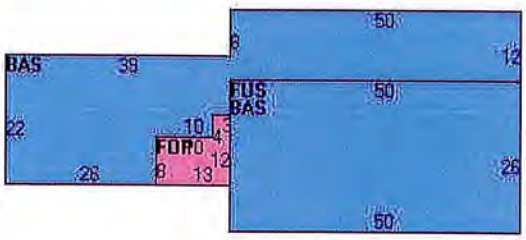
FUS	Upper Story, Finished	6,568	6,568
FOP	Porch, Open, Finished	404	0
UAT	Attic, Unfinished	3,754	0
UBM	Basement, Unfinished	7,690	0
ULP	Loading Platform, Unfinished	210	0
		26,364	14,306

Building 17 : Section 1

Year Built: 1968
Living Area: 3,942
Replacement Cost: $414,461
Replacement Cost Less Depreciation: $339,900

Building Attributes : Bldg 17 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Wood Shingle
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Electric
Heating Type	Hot Water

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	2,642	2,642
FUS	Upper Story, Finished	1,300	1,300
FOP	Porch, Open, Finished	116	0
		4,058	3,942

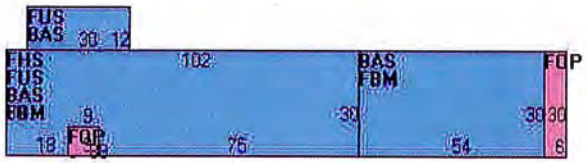
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	4
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building 18 : Section 1

Year Built: 1945
Living Area: 14,418
Replacement Cost: $1,376,125
Replacement Cost Less Depreciation: $1,032,100

Building Attributes : Bldg 18 of 35	
Field	**Description**
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2.5
Occupancy	
Exterior Wall 1	Brick/Masonry
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	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	7

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,968	4,968
FBM	Basement, Finished	4,608	4,608
FUS	Upper Story, Finished	3,348	3,348
FHS	Half Story, Finished	2,988	1,494
FOP	Porch, Open, Finished	252	0
		16,164	14,418

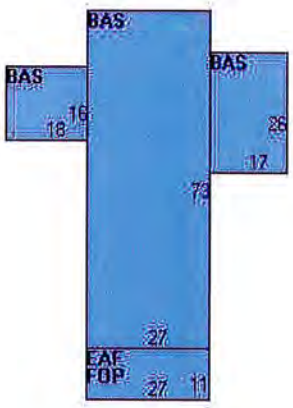
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building 19 : Section 1

Year Built: 1939
Living Area: 2,805
Replacement Cost: $545,678
Replacement Cost Less Depreciation: $409,300

Building Attributes : Bldg 19 of 35	
Field	**Description**
STYLE	Churches
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Concr-Finished
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	2,701	2,701
EAF	Attic, Expansion, Finished	297	104
FOP	Porch, Open, Finished	297	0
		3,295	2,805

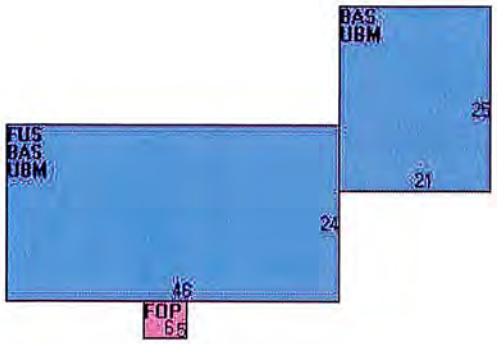
Rooms/Prtns	AVERAGE
Wall Height	16
% Comn Wall	

Building 20 : Section 1

Year Built: 1940
Living Area: 2,733
Replacement Cost: $611,437
Replacement Cost Less Depreciation: $458,600

Building Attributes : Bldg 20 of 35	
Field	**Description**
STYLE	Hospital
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asbestos Shing
Interior Wall 1	Plastered
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Steam
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	02
Total Baths	6
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

Building Layout



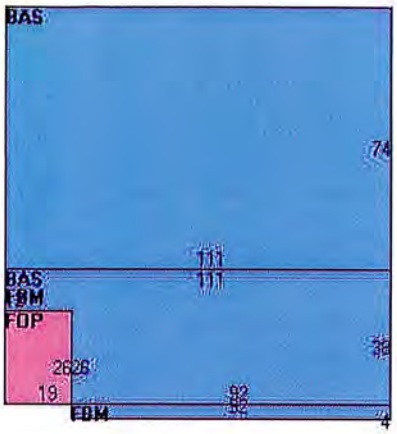
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,629	1,629
FUS	Upper Story, Finished	1,104	1,104
FOP	Porch, Open, Finished	30	0
UBM	Basement, Unfinished	1,629	0
		4,392	2,733

Building 21 : Section 1

Year Built: 1975
Living Area: 16,030
Replacement Cost: $650,111
Replacement Cost Less Depreciation: $533,100

Building Attributes : Bldg 21 of 35	
Field	**Description**
STYLE	Commercial
MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	4
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEILING ONLY
Rooms/Prtns	AVERAGE
Wall Height	28
% Comn Wall	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	11,938	11,938
FBM	Basement, Finished	4,092	4,092
FOP	Porch, Open, Finished	494	0
		16,524	16,030

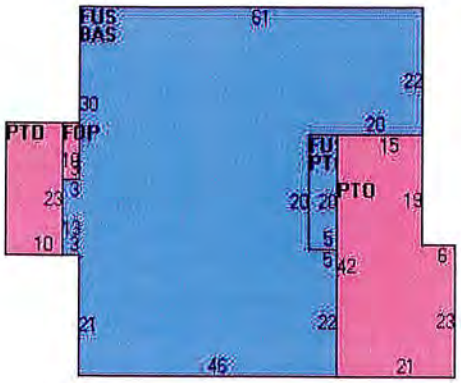
Building 22 : Section 1

Year Built: 1963
Living Area: 6,526
Replacement Cost: $700,665

Replacement Cost
Less Depreciation: $560,500

Building Attributes : Bldg 22 of 35	
Field	**Description**
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Slate
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	1
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	REINF. CONCR
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
FUS	Upper Story, Finished	3,313	3,313
BAS	First Floor	3,213	3,213
FOP	Porch, Open, Finished	30	0
PTO	Patio	1,098	0
		7,654	6,526

Building 23 : Section 1

Year Built: 1963
Living Area: 20,000
Replacement Cost: $1,285,000
Replacement Cost
Less Depreciation: $1,028,000

Building Attributes : Bldg 23 of 35	
Field	**Description**
STYLE	School/College

MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Bowstring Trus
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	1-1C
Heat/AC	NONE
Frame Type	REINF. CONCR
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	16
% Comn Wall	

Building Layout

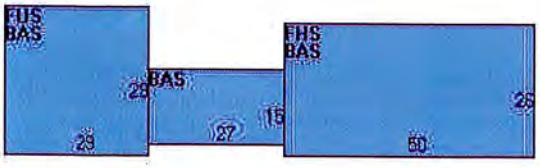
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	20,000	20,000
		20,000	20,000

Building 24 : Section 1

Year Built: 1940
Living Area: 4,037
Replacement Cost: $399,824
Replacement Cost Less Depreciation: $299,900

Building Attributes : Bldg 24 of 35	
Field	**Description**
STYLE	Dormitory
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Clapboard

Building Layout



Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	09
Total Baths	4
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	

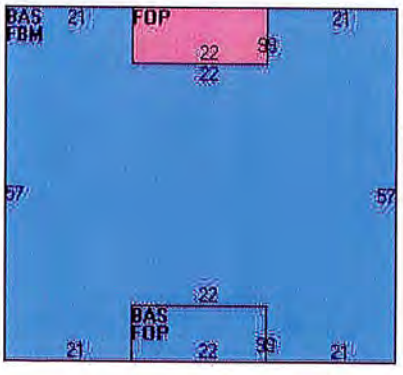
Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,546	2,546
FUS	Upper Story, Finished	841	841
FHS	Half Story, Finished	1,300	650
		4,687	4,037

Building 25 : Section 1

Year Built: 1970
Living Area: 6,702
Replacement Cost: $460,046
Replacement Cost Less Depreciation: $377,200

Building Attributes : Bldg 25 of 35	
Field	Description
STYLE	School/College
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Irregular
Roof Cover	Wood Shingle
Interior Wall 1	Minim/Masonry
Interior Wall 2	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	3,450	3,450
FBM	Basement, Finished	3,252	3,252

Interior Floor 1	Concr-Finished
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	Com/Res MDL94
Total Rooms	
Total Bedrms	00
Total Baths	5
1st Floor Use:	1-1C
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	
% Comn Wall	

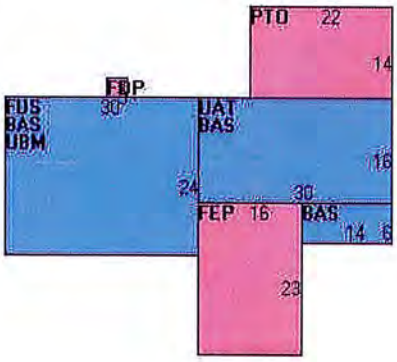
FOP	Porch, Open, Finished	396	0
		7,098	6,702

Building 26 : Section 1

Year Built: 1820
Living Area: 2,004
Replacement Cost: $219,388
Replacement Cost Less Depreciation: $188,700

Building Attributes : Bldg 26 of 35	
Field	**Description**
Style	Colonial
Model	Residential
Grade:	04
Stories:	2
Occupancy	1
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 Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	None

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,284	1,284
FUS	Upper Story, Finished	720	720
FEP	Porch, Enclosed, Finished	368	0
FOP	Porch, Open, Finished	9	0
PTO	Patio	308	0
UAT	Attic, Unfinished	480	0
UBM	Basement, Unfinished	720	0

Total Bedrooms:	3 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average

Building 27 : Section 1

Year Built: 1920
Living Area: 3,428
Replacement Cost: $288,973
Replacement Cost Less Depreciation: $216,700

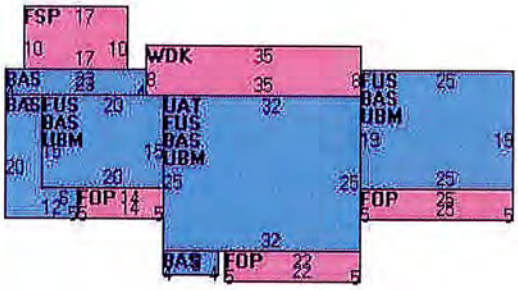
Building Attributes : Bldg 27 of 35	
Field	**Description**
Style	Colonial
Model	Residential
Grade:	04
Stories:	2
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	5 Bedrooms
Total Bthrms:	3
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average

Building 28 : Section 1

Year Built: 1940

		3,889	2,004

Building Layout

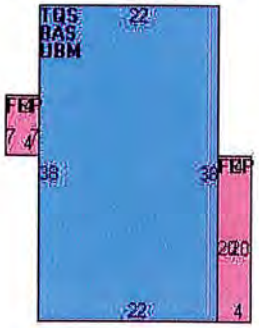


Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,853	1,853
FUS	Upper Story, Finished	1,575	1,575
FOP	Porch, Open, Finished	305	0
FSP	Porch, Screen, Finished	170	0
UAT	Attic, Unfinished	800	0
UBM	Basement, Unfinished	1,575	0
WDK	Deck, Wood	280	0
		6,558	3,428

Building Layout

Living Area: 1,463
Replacement Cost: $158,198
Replacement Cost Less Depreciation: $118,600

Building Attributes : Bldg 28 of 35	
Field	**Description**
Style	Conventional
Model	Residential
Grade:	03
Stories:	1.75
Occupancy	1
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 Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	836	836
TQS	Three Quarter Story	836	627
FEP	Porch, Enclosed, Finished	108	0
UBM	Basement, Unfinished	836	0
		2,616	1,463

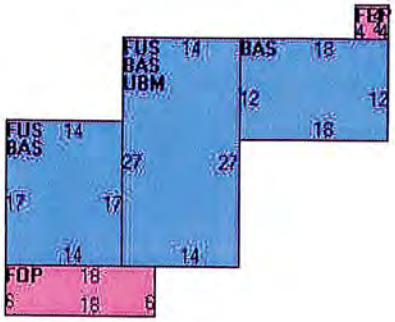
Building 29 : Section 1

Year Built: 1930
Living Area: 1,448
Replacement Cost: $162,984
Replacement Cost Less Depreciation: $122,200

Building Attributes : Bldg 29 of 35	
Field	**Description**
Style	Colonial
Model	Residential
Grade:	04
Stories:	2
Occupancy	1

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 Flr 1	Hardwood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	8
Bath Style:	Average
Kitchen Style:	Average

Building Layout



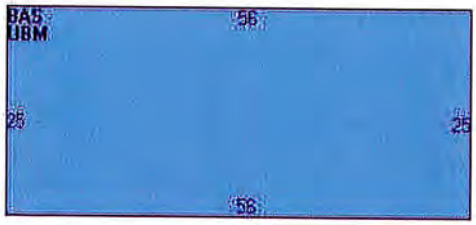
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	832	832
FUS	Upper Story, Finished	616	616
FEP	Porch, Enclosed, Finished	16	0
FOP	Porch, Open, Finished	108	0
UBM	Basement, Unfinished	378	0
		1,950	1,448

Building 30 : Section 1

Year Built: 1945
Living Area: 1,400
Replacement Cost: $151,060
Replacement Cost Less Depreciation: $101,200

Building Attributes : Bldg 30 of 35	
Field	**Description**
Style	Ranch
Model	Residential
Grade:	03
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
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,400	1,400
UBM	Basement, Unfinished	1,400	0
		2,800	1,400

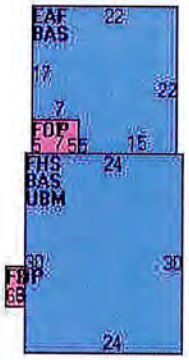
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	6
Bath Style:	Average
Kitchen Style:	Average

Building 31 : Section 1

Year Built: 1950
Living Area: 1,686
Replacement Cost: $176,997
Replacement Cost Less Depreciation: $138,100

Building Attributes : Bldg 31 of 35	
Field	**Description**
Style	Conventional
Model	Residential
Grade:	04
Stories:	1.5
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
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
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	6
Bath Style:	Average
Kitchen Style:	Average

Building Layout



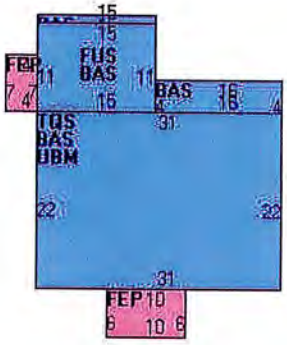
Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,169	1,169
FHS	Half Story, Finished	720	360
EAF	Attic, Expansion, Finished	449	157
FOP	Porch, Open, Finished	53	0
UBM	Basement, Unfinished	720	0
		3,111	1,686

Building 32 : Section 1

Year Built: 1750
Living Area: 1,603
Replacement Cost: $178,076
Replacement Cost Less Depreciation: $124,700

Building Attributes : Bldg 32 of 35	
Field	**Description**
Style	Colonial
Model	Residential
Grade:	04
Stories:	1.75
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	8
Bath Style:	Average
Kitchen Style:	Average

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	926	926
TQS	Three Quarter Story	682	512
FUS	Upper Story, Finished	165	165
FEP	Porch, Enclosed, Finished	88	0
UBM	Basement, Unfinished	682	0
		2,543	1,603

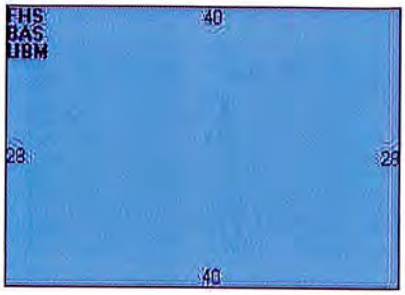
Building 33 : Section 1

Year Built: 1935
Living Area: 1,680
Replacement Cost: $146,445
Replacement Cost Less Depreciation: $109,800

Building Attributes : Bldg 33 of 35	
Field	**Description**
Style	Cape Cod
Model	Residential

Grade:	04
Stories:	1.5
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
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
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average

Building Layout



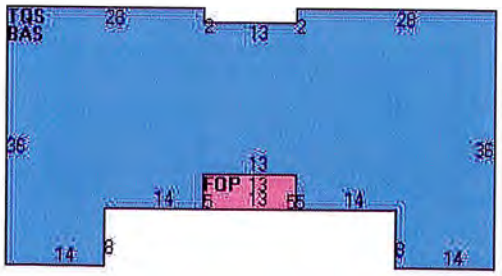
Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,120	1,120
FHS	Half Story, Finished	1,120	560
UBM	Basement, Unfinished	1,120	0
		3,360	1,680

Building 34 : Section 1

Year Built: 2013
Living Area: 3,614
Replacement Cost: $298,736
Replacement Cost Less Depreciation: $298,700

Building Attributes : Bldg 34 of 35	
Field	Description
Style	Ranch
Model	Residential
Grade:	05
Stories:	2
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,065	2,065
TQS	Three Quarter Story	2,065	1,549
FOP	Porch, Open, Finished	65	0

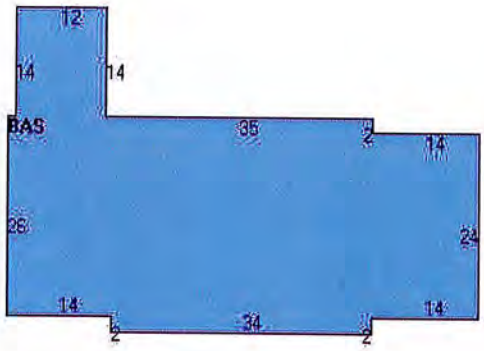
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average

		4,195	3,614

Building 35 : Section 1

Year Built: 2013
Living Area: 1,820
Replacement Cost: $204,164
Replacement Cost Less Depreciation: $204,200

Building Layout



Building Attributes : Bldg 35 of 35	
Field	**Description**
Style	Ranch
Model	Residential
Grade:	05
Stories:	1.75
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	4 Bedrooms
Total Bthrms:	3
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	9
Bath Style:	Average

Buiiding Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,820	1,820
		1,820	1,820

Kitchen Style:	Average

Extra Features

Extra Features				Legend
Code	**Description**	**Size**	**Value**	**Bldg #**
BGAR	BASEMENT GARAG	1 UNITS	$1,000	30
FPL1	FIREPLACE 1 ST	1 UNITS	$3,800	1
FPL1	FIREPLACE 1 ST	1 UNITS	$3,800	6
FPL1	FIREPLACE 1 ST	1 UNITS	$3,900	5
FPL1	FIREPLACE 1 ST	1 UNITS	$4,100	7
FPL1	FIREPLACE 1 ST	1 UNITS	$4,100	8
FPL1	FIREPLACE 1 ST	2 UNITS	$8,600	26
FPL2	1.5 STORY CHIM	1 UNITS	$3,800	28
FPL2	1.5 STORY CHIM	1 UNITS	$3,800	33
FPL2	1.5 STORY CHIM	1 UNITS	$3,900	31
FPL3	2 STORY CHIM	1 UNITS	$3,000	2
FPL3	2 STORY CHIM	1 UNITS	$3,800	16
FPL3	2 STORY CHIM	1 UNITS	$3,800	18
FPL3	2 STORY CHIM	2 UNITS	$7,500	24
FPL3	2 STORY CHIM	3 UNITS	$14,000	12
FPL1	FIREPLACE 1 ST	1 UNITS	$4,000	13
FPL3	2 STORY CHIM	1 UNITS	$3,500	32
FPL3	2 STORY CHIM	1 UNITS	$3,800	14
FPL3	2 STORY CHIM	2 UNITS	$7,500	27
FPO	EXTRA FPL OPEN	1 UNITS	$1,800	32

Land

Land Use

Use Code 930R
Description Exempt MDL01
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 117
Frontage 0
Depth 0
Assessed Value $1,548,200
Appraised Value $2,211,600

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
BRN4	BARN 1ST W L/B			480 S.F.	$5,000	27
FCP	CARPORT			880 S.F.	$7,900	14
FGR1	GARAGE-AVE			560 S.F.	$10,500	29

PMP1	PUMP-SING HSE			180 UNITS	$0	1
SHD1	SHED FRAME			120 S.F.	$800	32
SHD1	SHED FRAME			600 S.F.	$1,100	10
TEN	TENNIS COURT			4 UNITS	$90,000	13
TEN	TENNIS COURT			4 UNITS	$90,000	19
BRN1	BARN - 1 STORY			264 S.F.	$3,600	1
FCP	CARPORT			360 S.F.	$3,200	31
PAV1	PAVING-ASPHALT			25000 S.F.	$30,900	1
BRN1	BARN - 1 STORY			5616 S.F.	$75,800	1
SHD1	SHED FRAME			140 S.F.	$1,900	1
SPL1	POOL-INGR CONC			1250 S.F.	$17,500	7
GEN	GENERATOR			2 UNITS	$14,300	1
SHD1	SHED FRAME			200 S.F.	$2,700	1
GEN	GENERATOR			1 UNITS	$6,400	1
IMP	IMPLEMENT SHED			1440 S.F.	$6,500	1
IMP	IMPLEMENT SHED			1000 S.F.	$4,500	1
IMP	IMPLEMENT SHED			920 S.F.	$4,100	1
SLO1	SILO-WD OR CNC			576 DIAxHT	$6,000	1

Exhibit C

MODIFICATION TO EXISTING WIRELESS
TELECOMMUNICATION FACILITY BY

T-Mobile

T-MOBILE NORTHEAST LLC

SITE NUMBER: CTNH541A
SITE NAME:CTNH541A
CROWN BU NUMBER: 841293
SITE ADDRESS: 136 BULLS BRIDGE ROAD
SOUTH KENT, CT 06785

PROJECT SCOPE:

ADDITION OF DELTA SECTOR WITH (2) ANTENNAS AND (3) RRUs.

ADDITION OF A BACKHAUL RADIO MICROWAVE DISH, (1) FIBER AND (2) CAT6 CABLES TO EXISTING TOWER.

PROJECT NOTES:

1. THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
   HANDICAPPED ACCESS IS NOT REQUIRED.
   POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
   NO OUTDOOR STORAGE OR ANY
   SOLID WASTE RECEPTACLES REQUIRED.
2. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
3. DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.
4. PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT, A STRUCTURAL EVALUATION SHOULD BE PERFORMED TO CERTIFY THAT THE EXISTING/PROPOSED STRUCTURE AND COMPONENTS HAVE ADEQUATE STRUCTURAL CAPACITY PER ALL THE APPLICABLE CODES AND STANDARDS IN THE PROJECT JURISDICTION. CONTRACTOR SHOULD REVIEW THE REPORT AND ADHERE TO THE REPORT FULLY AND ALL THE RECOMMENDATIONS THEREIN, INCLUDING BUT NOT LIMITED TO ANTENNA PLACEMENT, COAX ROUTING, STRUCTURAL IMPROVEMENTS, ETC.

APPLICABLE STATE ADOPTION CODES:

2016 CONNECTICUT STATE BUILDING CODE (CSBC).

ANSI/TIA-222-G-2005 STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

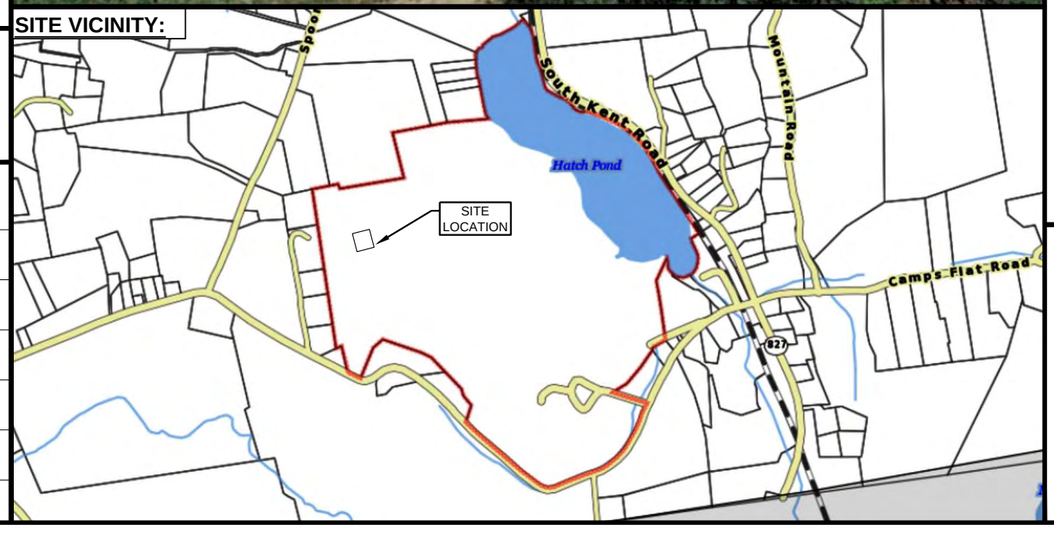
2014 NATIONAL ELECTRICAL CODE (NFPA 70) FOR POWER AND GROUNDING REQUIREMENTS.

T-MOBILE APPROVALS:

FSA CM	DATE
RF ENGINEER	DATE
FOPS	DATE
T-MOBILE ENGINEERING AND DEVELOPMENT	DATE
	DATE
	DATE

SITE IMAGE:

SITE VICINITY:



PROJECT INFORMATION:

ADDRESS:	136 BULLS BRIDGE ROAD SOUTH KENT, CT 06785
COORDINATES:	41° 40' 53.88" N , 73° 29' 11.83" W
STRUCTURE TYPE:	EXISTING 181'-6" MONOPOLE TOWER
JURISDICTION:	TOWN OF SOUTH KENT, CT
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

PROJECT TEAM:

APPLICANT:	T-MOBILE NORTHEAST, LLC. 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 860-692-7100
PROPERTY OWNER :	SOUTH KENT SCHOOL CORP 40 BULLS BRIDGE RD SOUTH KENT, CT 06785
TOWER OWNER :	CROWN CASTLE
PROJECT MANAGER:	NORTHEAST SITE SOLUTIONS 420 MAIN STREET, BLDG 4 STURBRIDGE, MA 01566 SHELDON FREINCLE SHELDON@NORTHEASTSITESOLUTIONS.COM 201-776-8521
CONSULTANTS:	FORESITE LLC 462 WALNUT ST NEWTON, MA 02460 SAEED MOSSAVAT SMOSSAVAT@FORESITELLC.COM 617-212-3123

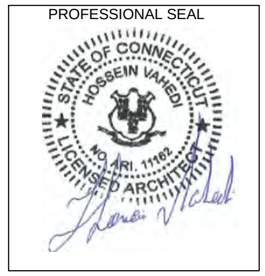
SHEET INDEX:

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANAGER
NSS NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:
FORESITE LLC
Architects . Engineers . Surveyors
462 WALNUT STREET
NEWTON, MA 02460
617-212-3123

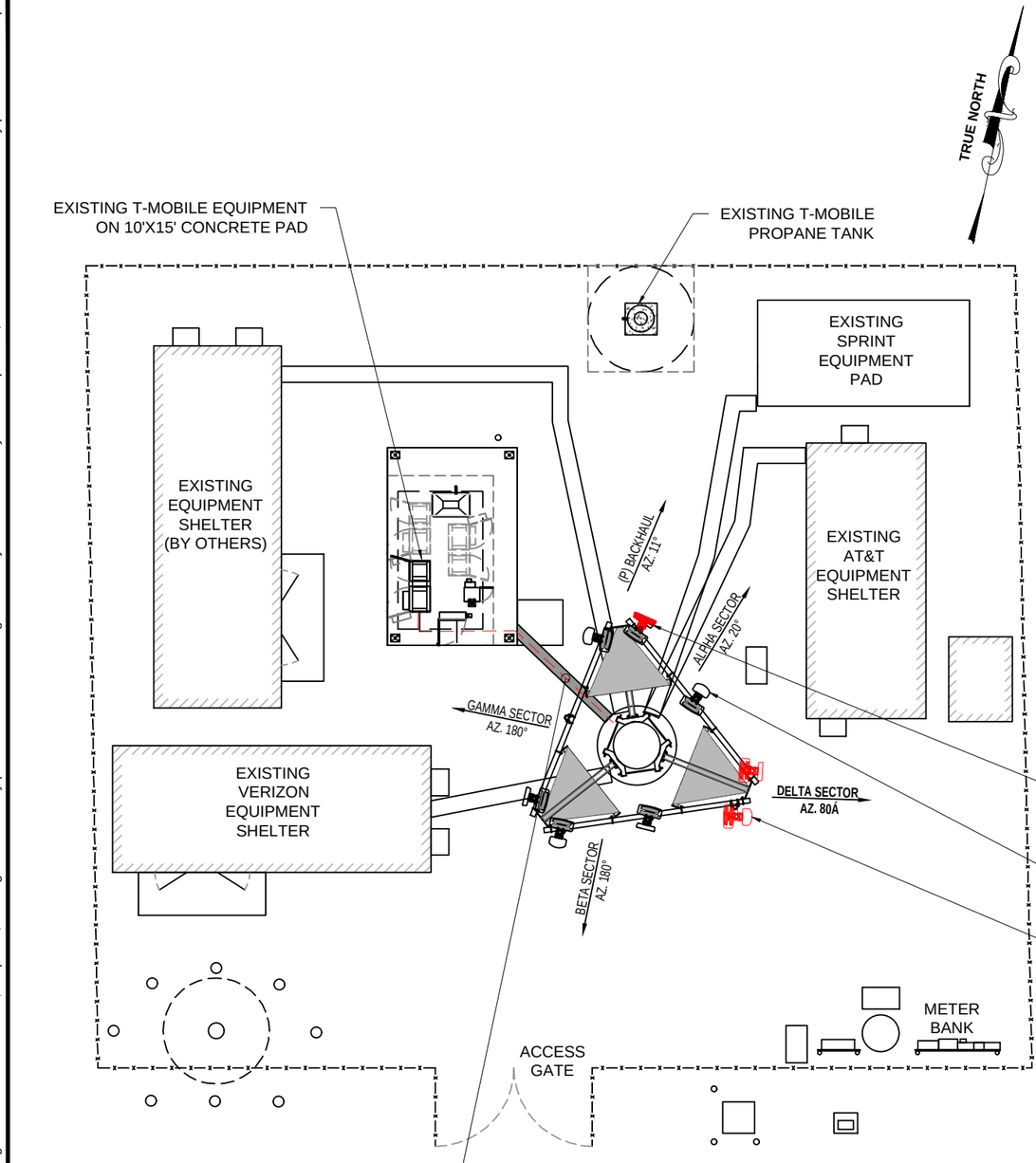
PROFESSIONAL SEAL



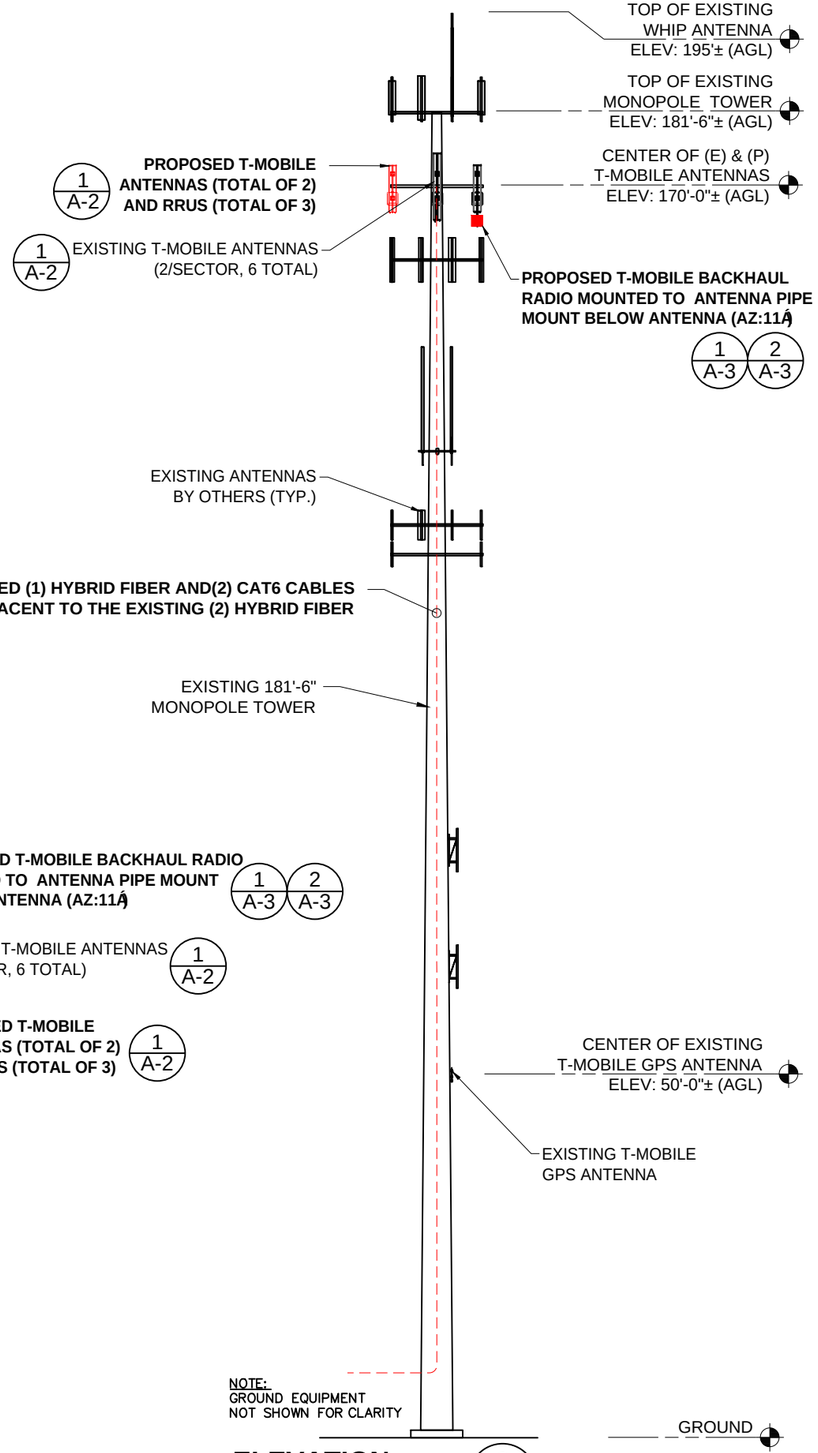
REV	DESCRIPTION	DATE
A	PRELIMINARY	03/29/18
0	ISSUED FOR PERMIT	05/10/18

SITE NUMBER: CTNH541A
SITE NAME: CTNH541A
SITE ADDRESS: 136 BULLS BRIDGE ROAD
SOUTH KENT, CT 06785

SHEET TITLE:
T-1: TITLE SHEET



PLAN 1/A-1
N.T.S.



NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY

ELEVATION 2/A-1
N.T.S.

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANAGER
NSS NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:
FORESITE LLC
Architects . Engineers . Surveyors
462 WALNUT STREET
NEWTON, MA 02460
617-212-3123

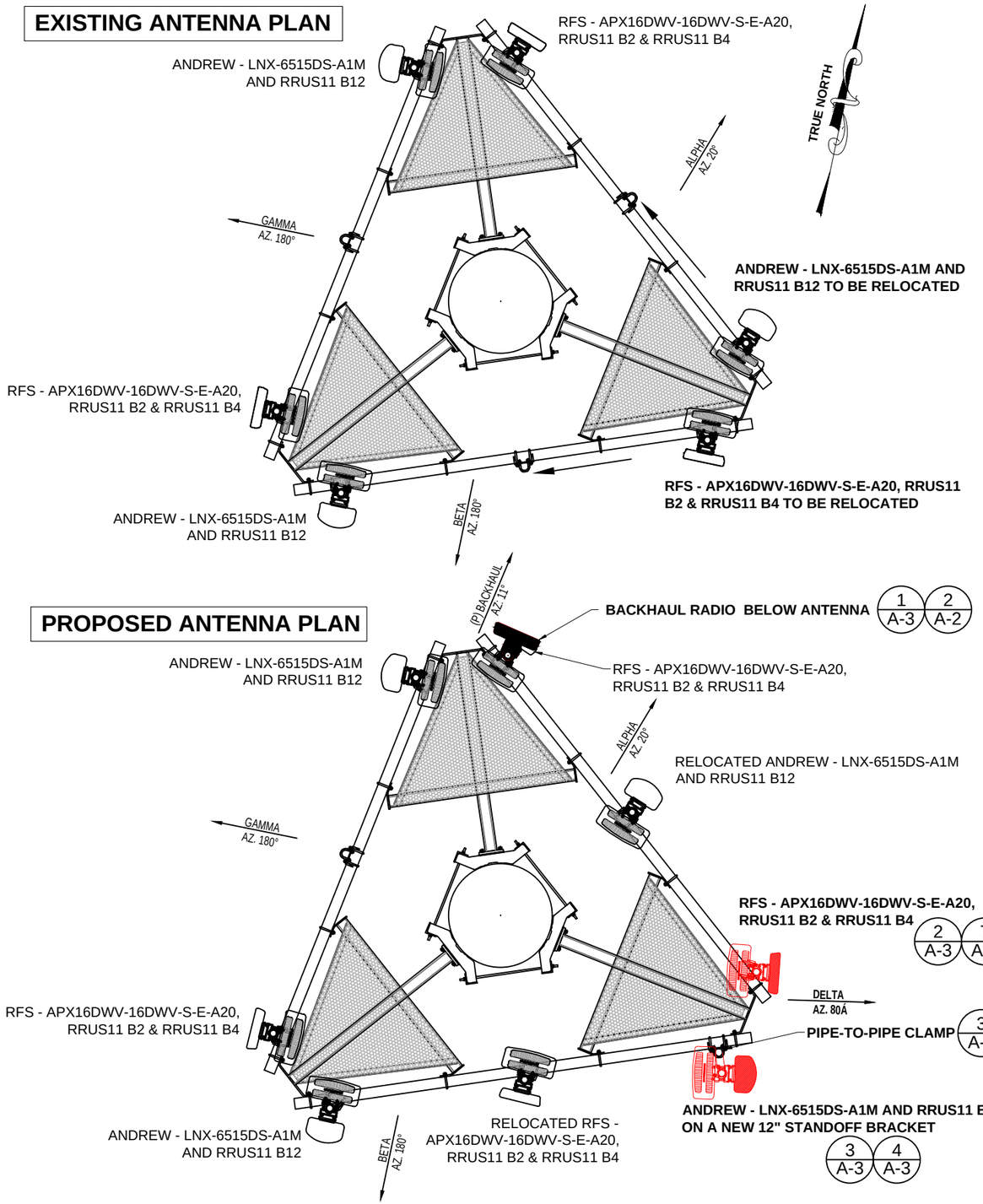
PROFESSIONAL SEAL
STATE OF CONNECTICUT
HOSSEIN VAHEDI
NO. ARI. 11162
LICENSED ARCHITECT

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/29/18
0	ISSUED FOR PERMIT	05/10/18

SITE NUMBER: CTNH541A
SITE NAME: CTNH541A
SITE ADDRESS: 136 BULLS BRIDGE ROAD
SOUTH KENT, CT 06785

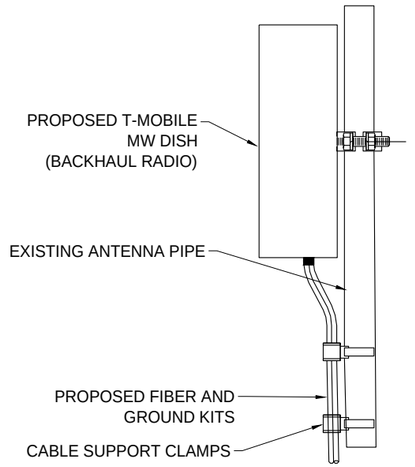
SHEET TITLE:
A-1: PLAN AND ELEVATION

EXISTING ANTENNA PLAN

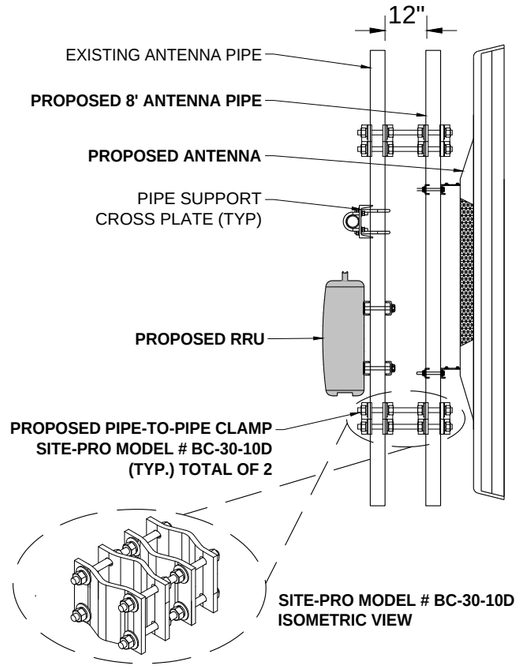


PROPOSED ANTENNA PLAN

ANTENNA PLAN
N.T.S — 1/A-2



BACKHAUL RADIO MOUNTING DETAIL
N.T.S — 2/A-2



ANTENNA STANDOFF MOUNTING DEYAIL
N.T.S — 3/A-2

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANAGER
NSS NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:
FORESITE LLC
Architects . Engineers . Surveyors
462 WALNUT STREET
NEWTON, MA 02460
617-212-3123

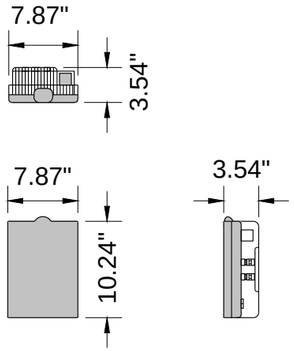
PROFESSIONAL SEAL

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/29/18
0	ISSUED FOR PERMIT	05/10/18

SITE NUMBER: CTNH541A
SITE NAME: CTNH541A
SITE ADDRESS: 136 BULLS BRIDGE ROAD
SOUTH KENT, CT 06785

SHEET TITLE:
A-2: ANTENNA PLAN

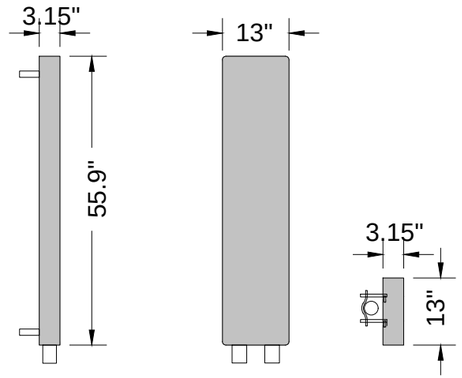
(1) BACKHAUL RADIO



BACKHAUL RADIO DIMENSIONS	
MODEL #	IBR 1300
MANUF.	FASTBACK
HEIGHT	10.24"
WIDTH	7.87"
DEPTH	3.54"
WEIGHT	8.82 LBS

BACKHAUL RADIO SPECIFICATIONS 1 A-3
N.T.S

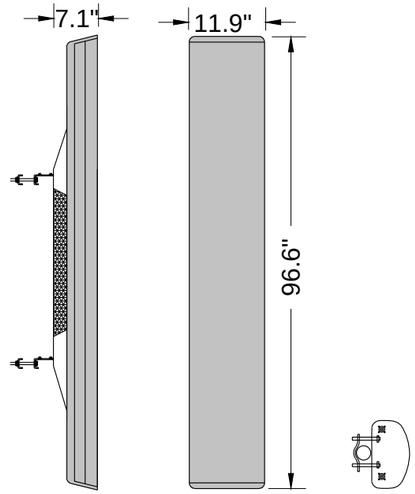
(1) 1700-2100 MHZ ANTENNA



ANTENNA DIMENSIONS	
MODEL #	APX16DWV-16DWVS-E-A20
MANUF.	RFS
HEIGHT	55.9"
WIDTH	13"
DEPTH	3.15"
WEIGHT	43.7 LBS

RFS ANTENNA 2 A-3
N.T.S

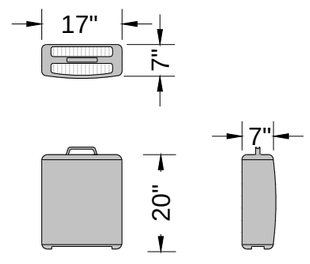
(1) 698-896 MHZ ANTENNA



ANTENNA DIMENSIONS	
MODEL #	LNX-6515DS-A1M
MANUF.	COMMSCOPE
HEIGHT	96.6"
WIDTH	11.9"
DEPTH	7.1"
WEIGHT	50.3 LBS

COMMSCOPE ANTENNA 3 A-3
N.T.S

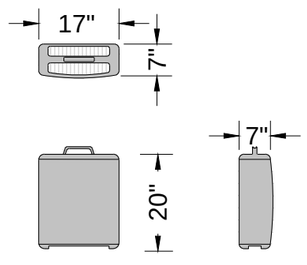
(1) RRU



RRU DIMENSIONS	
MODEL #	RRUS11 B12
MANUF.	ERICSSON
HEIGHT	20"
WIDTH	17"
DEPTH	7"
WEIGHT	50.7 LB

RRUS (B12) 4 A-3
N.T.S

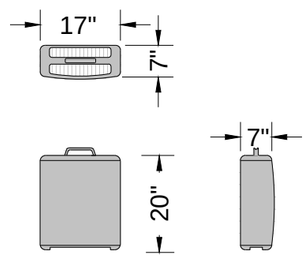
(1) RRU



RRU DIMENSIONS	
MODEL #	RRUS11 B2
MANUF.	ERICSSON
HEIGHT	20"
WIDTH	17"
DEPTH	7"
WEIGHT	50.7 LB

RRUS (B2) 5 A-3
N.T.S

(1) RRU



RRU DIMENSIONS	
MODEL #	RRUS11 B4
MANUF.	ERICSSON
HEIGHT	20"
WIDTH	17"
DEPTH	7"
WEIGHT	50.7 LB

RRUS (B4) 6 A-3
N.T.S

APPLICANT:
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANAGER
NSS NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:
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Architects . Engineers . Surveyors
462 WALNUT STREET
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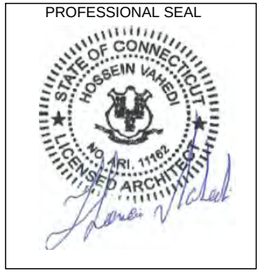
617-212-3123

PROFESSIONAL SEAL



REV	DESCRIPTION	DATE
A	PRELIMINARY	03/29/18
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SITE NUMBER: CTNH541A
SITE NAME: CTNH541A
SITE ADDRESS: 136 BULLS BRIDGE ROAD
SOUTH KENT, CT 06785

SHEET TITLE:
A-3: ANTENNA DETAILS

Exhibit D

Date: **February 27, 2018**

Charles McGuirt
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277

Destek Engineering, LLC
1281 Kennestone Circle, Suite 100
Marietta, GA 30066
(770) 693-0835

Subject: Structural Analysis Report

Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CTNH541A
	Carrier Site Name:	CTNH541A
Crown Castle Designation:	**Crown Castle BU Number:**	841293
	Crown Castle Site Name:	KENT-BULLS BRIDGE ROAD
	Crown Castle JDE Job Number:	485090
	Crown Castle Work Order Number:	1527885
	Crown Castle Application Number:	426413 Rev. 1
Engineering Firm Designation:	**Destek Engineering, LLC Project Number:**	1802051
Site Data:	**136 BULLS BRIDGE ROAD, SOUTH KENT, Litchfield County, CT**	
	Latitude *41° 40' 53.85"*, Longitude *-73° 29' 11.8"*	
	179.813 Foot - Monopole Tower	

Dear Charles McGuirt,

Destek Engineering, LLC is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 1145685, in accordance with application 426413, revision 1.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Existing + Reserved + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2016 Connecticut State Building Code and 2012 International Building Code based upon an ultimate 3-second gust wind speed of 115 mph converted to a nominal 3-second gust wind speed of 89 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C and Risk Category II were used in this analysis.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at *Destek Engineering, LLC* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by: Wade Baxter, EIT

Respectfully submitted by: 02-27-2018

STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN 27057
LICENSED PROFESSIONAL ENGINEER

Ahmet Colakoglu, PE
President

tnxTower Report - version 7.0.5.1

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 180 ft Monopole tower designed by Engineered Endeavors, Inc. in December of 2000. The tower was originally designed for a wind speed of 80 mph per TIA/EIA-222-F. The tower has been modified per reinforcement drawings prepared by GPD, in Dec. of 2012.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA-222-G Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a 3-second gust wind speed of 89 mph with no ice, 40 mph with 1 inch ice thickness and 60 mph under service loads, exposure category C with topographic category 1 and crest height of 0 feet.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
170.0	170.0	1	Fastback Networks	IBR 1300_CCIV2	3 1	1/4 1 5/8	1
		1	commscope	LNX-6515DS-A1M w/ Mount Pipe			
		1	rfs celwave	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe			
		1	ericsson	RRUS 11 B12			
		1	ericsson	RRUS 11 B2			
		1	ericsson	RRUS 11 B4			

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
180.0	185.0	3	decibel	ASP-952	15 2 1	1-5/8 7/8 1/2	1
		6	powerwave technologies	LGP13519			
	182.0	6	ericsson	RRUS 11			
		1	kmw communications	AM-X-CD-14-65-00T-RET w/ Mount Pipe			
		2	kmw communications	AM-X-CD-16-65-00T-RET w/ Mount Pipe			
		6	powerwave technologies	7770.00 w/ Mount Pipe			
		6	powerwave technologies	LGP21401			
		1	raycap	DC6-48-60-18-8F			
	180.0	1	tower mounts	Platform Mount [LP 601-1]			
170.0	170.0	3	commscope	LNX-6515DS-A1M w/ Mount Pipe	2	1-5/8	1
		3	ericsson	RRUS 11 B12			
		3	ericsson	RRUS 11 B2			
		3	ericsson	RRUS 11 B4			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
		3	rfs celwave	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe			
		1	tower mounts	Platform Mount [LP 303-1]			
160.0	160.0	3	alcatel lucent	B13 RRH 4X30	2	1-5/8	2
		3	alcatel lucent	B5 RRH4X30-4R			
		3	alcatel lucent	B66A RRH4X45			
		6	commscope	SBNHH-1D65B w/ Mount Pipe			
		2	rfs celwave	DB-T1-6Z-8AB-0Z			
		6	antel	LPA-80080-6CF-EDIN w/ Mount Pipe	12	1-5/8	1
		6	rfs celwave	FD9R6004/2C-3L			
		1	tower mounts	Platform Mount [LP 601-1]			
134.0	144.0	2	sinclair	SC442D-HF2LDF	-	-	2
	141.0	1	bird technologies group	432E-83I-01-T			
		1	sinclair	SC479-HF1LDF			
	139.0	2	decibel	DB809DK-Y	4	1-5/8	1
	134.0	1	tx rx systems	422-86A-99575-18BW	2	1/2	2
		1	amphenol	WPA-700102-4CF-EDIN-9 w/ Mount Pipe	2	1-5/8	
		3	site pro	RMV5-2xx T-Arm Mounts	-	-	1
124.0	124.0	3	alcatel lucent	TD-RRH8x20-25	1	1-1/4	2
		3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe			
		3	alcatel lucent	800MHZ RRH	3	1-1/4	1
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe			
		1	tower mounts	Platform Mount [LP 601-1]			
120.0	120.0	1	eri	100-1	1	7/8	1
		1	tower mounts	Platform Mount [LP 601-1]			
80.0	80.0	2	tower mounts	Pipe Mount [PM 601-1]	-	-	1
63.0	63.0	1	gps	GPS_A	1	1/2	1
		1	tower mounts	Side Arm Mount [SO 701-1]			

Notes:
1) Existing Equipment
2) Reserved Equipment

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
180	180	12	-	7120.16	-	-
170	170	12	-	7120.16	-	-
160	160	12	-	7120.16	-	-

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
130	130	2	-	21' Omni	-	-
124.5	124.5	9	-	7120.16	-	-
114.5	114.5	6	-	7120.16	-	-
104.5	104.5	12	-	7120.16	-	-
80	80	2	-	6' HP	-	-

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	GPD, Proj. No. 2012801.85 dated 11/13/2012	4456627	CCISITES
4-POST-MODIFICATION INSPECTION	GPD, Proj. No. 2013707.52 dated 8/28/2013	4456621	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	FDH, Proj. No. 1403061500 dated 4/1/2014	4797649	CCISITES
4-TOWER MANUFACTURER DRAWINGS	SpectraSite, Proj. No. CT-0014 dated 6/25/2002	4456613	CCISITES
4-TOWER STRUCTURAL ANALYSIS REPORT	Black & Veatch Corp. Proj. No: 194393, dated 01/25/2018	7326172	CCISITES

3.1) Analysis Method

tnxTower (version 7.0.5.1), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Destek Engineering, LLC. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	179.813 - 132.966	Pole	TP25.5375x15x0.25	1	-9.63	1441.80	92.2	Pass
L2	132.966 - 87.3652	Pole	TP35.1887x24.2068x0.375	2	-24.50	2982.07	95.5	Pass
L3	87.3652 - 42.7922	Pole	TP44.3577x33.3475x0.4375	3	-38.04	4343.23	90.6	Pass
L4	42.7922 - 0	Pole	TP53x42.1376x0.5	4	-42.29	5067.83	82.8	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
							Summary	
						Pole (L2)	95.5	Pass
						Rating =	95.5	Pass

Table 6 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	68.3	Pass
1	Base Plate	0	82.3	Pass
1	Base Foundation	0	53.5	Pass
1	Base Foundation Soil Interaction	0	98.1	Pass

Structure Rating (max from all components) =	98.1%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

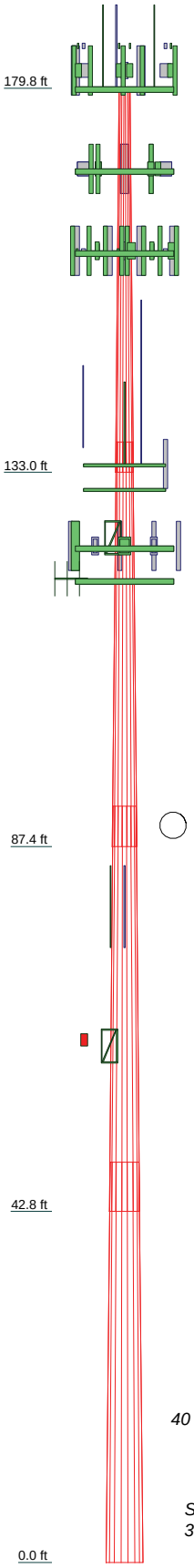
4.1) Recommendations

The tower, its base plate, anchor rods and foundation have sufficient capacity to carry the existing, reserved, and proposed loads. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	46.85	18	0.2500	3.69	15.0000	25.5375	A572-65	2.5
2	49.29	18	0.3750	4.90	24.2068	35.1887		5.9
3	49.47	18	0.4375	6.04	33.3475	44.3577		9.0
4	48.84	18	0.5000		42.1376	53.0000		12.4
								29.8



ALL REACTIONS ARE FACTORED

AXIAL 124 K
SHEAR 9 K
MOM 1545

TORQUE 2 kip-ft
40 mph WIND - 1.0000 in ICE

AXIAL 59 K
SHEAR 38 K
MOM 5244

TORQUE 7 kip-ft
REACTIONS - 89 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Platform Mount [LP 601-1]	180	SBNHH-1D65B w/ Mount Pipe	160
Transition Ladder	180	SBNHH-1D65B w/ Mount Pipe	160
7770.00 w/ Mount Pipe	180	SBNHH-1D65B w/ Mount Pipe	160
7770.00 w/ Mount Pipe	180	SBNHH-1D65B w/ Mount Pipe	160
7770.00 w/ Mount Pipe	180	(2) FD9R6004/2C-3L	160
ASP-952	180	(2) FD9R6004/2C-3L	160
ASP-952	180	(2) FD9R6004/2C-3L	160
ASP-952	180	B13 RRH 4X30	160
AM-X-CD-16-65-00T-RET w/ Mount Pipe	180	B13 RRH 4X30	160
		B13 RRH 4X30	160
AM-X-CD-16-65-00T-RET w/ Mount Pipe	180	B5 RRH4X30-4R	160
AM-X-CD-14-65-00T-RET w/ Mount Pipe	180	B5 RRH4X30-4R	160
		B5 RRH4X30-4R	160
7770.00 w/ Mount Pipe	180	B66A RRH4X45	160
7770.00 w/ Mount Pipe	180	B66A RRH4X45	160
7770.00 w/ Mount Pipe	180	B66A RRH4X45	160
(2) LGP13519	180	(2) DB-T1-6Z-8AB-0Z	160
(2) LGP13519	180	(3) RMV5-2xx T-Arm Mounts [TA 702-3]	134
(2) LGP13519	180	SC479-HF1LDF	134
(2) LGP21401	180	SC442D-HF2LDF	134
(2) LGP21401	180	SC442D-HF2LDF	134
(2) LGP21401	180	WPA-700102-4CF-EDIN-9 w/ Mount Pipe	134
(2) RRUS 11	180	(2) DB809DK-Y	134
(2) RRUS 11	180	432E-83I-01-T	134
(2) RRUS 11	180	422-86A-99575-18BW	134
DC6-48-60-18-8F	180	(2) 6' x 2" Mount Pipe	134
9' x 2" Pipe Mount	180	6' x 2" Mount Pipe	134
9' x 2" Pipe Mount	180	(2) 6' x 2" Mount Pipe	134
9' x 2" Pipe Mount	180	3.5' Hor 2.5x2.5 Angle	131
Platform Mount [LP 303-1]	170	3.5' Hor 2.5x2.5 Angle	131
(2) APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	170	3.5' Hor 2.5x2.5 Angle	131
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	170	Side Arm Mount [SO 701-3]	131
LNX-6515DS-A1M w/ Mount Pipe	170	Platform Mount [LP 601-1]	124
(2) LNX-6515DS-A1M w/ Mount Pipe	170	Transition Ladder	124
(2) RRUS 11 B2	170	APXVTM14-ALU-I20 w/ Mount Pipe	124
RRUS 11 B2	170	APXVTM14-ALU-I20 w/ Mount Pipe	124
RRUS 11 B2	170	APXVTM14-ALU-I20 w/ Mount Pipe	124
(2) RRUS 11 B4	170	APXVSPP18-C-A20 w/ Mount Pipe	124
RRUS 11 B4	170	APXVSPP18-C-A20 w/ Mount Pipe	124
RRUS 11 B4	170	APXVSPP18-C-A20 w/ Mount Pipe	124
(2) RRUS 11 B12	170	TD-RRH8x20-25	124
RRUS 11 B12	170	TD-RRH8x20-25	124
RRUS 11 B12	170	TD-RRH8x20-25	124
Fastback Networks - IBR 1300_CCIV2	170	800MHZ RRH	124
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	170	800MHZ RRH	124
		800MHZ RRH	124
LNX-6515DS-A1M w/ Mount Pipe	170	(2) 6' x 2" Mount Pipe	124
8'x2" Antenna Mount Pipe	170	(2) 6' x 2" Mount Pipe	124
8'x2" Antenna Mount Pipe	170	(2) 6' x 2" Mount Pipe	124
8'x2" Antenna Mount Pipe	170	Side Arm Mount [SO 701-3]	124
Platform Mount [LP 601-1]	160	Platform Mount [LP 601-1]	120
Transition Ladder	160	100-1	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	(2) 8'x2" Antenna Mount Pipe	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	(2) 8'x2" Antenna Mount Pipe	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	(2) 8'x2" Antenna Mount Pipe	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	Transition Ladder	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	(2) Side Arm Mount [SO 301-1]	120
LPA-80080-6CF-EDIN w/ Mount Pipe	160	Pipe Mount [PM 601-1]	80
SBNHH-1D65B w/ Mount Pipe	160	Pipe Mount [PM 601-1]	80
SBNHH-1D65B w/ Mount Pipe	160	GPS_A	63
		Side Arm Mount [SO 701-1]	63

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

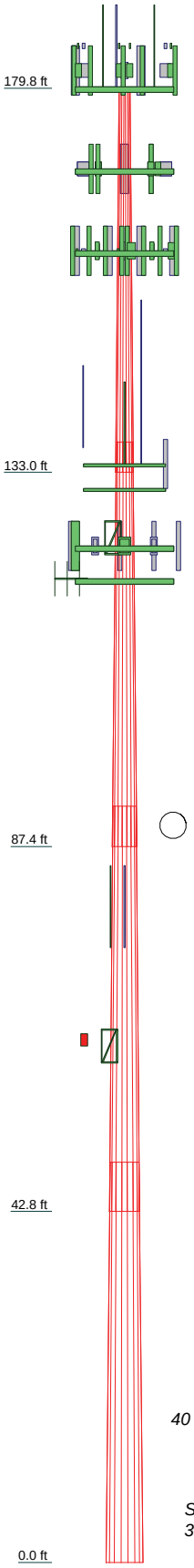
TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 89 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 95.5%

Destek Engineering, LLC
1281 Kennestone Circle, Suite 100
Marietta, GA 30066
Phone: (770) 693-0835
FAX:

Job: KENT-BULLS BRIDGE ROAD (BU# 841293)			
Project: 194393 (841293.1515630)			
Client: Crown Castle	Drawn by: Ahmet Colakoglu	App'd:	
Code: TIA-222-G	Date: 02/27/18	Scale: NTS	
Path: Z:\Projects\2018\02 - Crown Castle\1802051 - 841293 Kent Bulls Bridge Road WO 1527885\WO 1527885\TNXTower\841293.eri		Dwg No. E-1	

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	46.85	18	0.2500	3.69	15.0000	25.5375	A572-65	2.5
2	49.29	18	0.3750	4.90	24.2068	35.1887		5.9
3	49.47	18	0.4375	6.04	33.3475	44.3577		9.0
4	48.84	18	0.5000		42.1376	53.0000		12.4
								29.8



ALL REACTIONS ARE FACTORED

AXIAL 124 K

SHEAR 9 K

MOMENT 1545 kip-ft

TORQUE 2 kip-ft

40 mph WIND - 1.0000 in ICE

AXIAL 59 K

SHEAR 38 K

MOMENT 5244 kip-ft

TORQUE 7 kip-ft

REACTIONS - 89 mph WIND

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 89 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 95.5%

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Phone: (770) 693-0835
FAX:

Job: ***KENT-BULLS BRIDGE ROAD (BU# 841293)***			
Project: ***194393 (841293.1515630)***			
Client: Crown Castle	Drawn by: Ahmet Colakoglu	App'd:	
Code: TIA-222-G	Date: 02/27/18	Scale: NTS	
Path: Z:\Projects\2018\02 - Crown Castle\1802051 - 841293 Kent Bulls Bridge Road WO 1527885\WO 1527885\TNXTower\841293.eri		Dwg No. E-1	

Tower Input Data

There is a pole section.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

3) Tower is located in Litchfield County, Connecticut.
4) Basic wind speed of 89 mph.
5) Structure Class II.
6) Exposure Category C.
7) Topographic Category 1.
8) Crest Height 0.00 ft.
9) Nominal ice thickness of 1.0000 in.
10) Ice thickness is considered to increase with height.
11) Ice density of 56 pcf.
12) A wind speed of 40 mph is used in combination with ice.
13) Temperature drop of 50 °F.
14) Deflections calculated using a wind speed of 60 mph.
15) A non-linear (P-delta) analysis was used.
16) Pressures are calculated at each section.
17) Stress ratio used in pole design is 1.
18) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned		Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
√	Use Code Stress Ratios		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-G Bracing Resist. Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-G Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		Poles
	Secondary Horizontal Braces Leg		Sort Capacity Reports By Component	√	Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric				

Tapered Pole Section Geometry

Section	*Elevation*	*Section Length*	*Splice Length*	*Number of Sides*	*Top Diameter*	*Bottom Diameter*	*Wall Thickness*	*Bend Radius*	*Pole Grade*
	ft	*ft*	*ft*		*in*	*in*	*in*	*in*	
L1	179.81-132.97	46.85	3.69	18	15.0000	25.5375	0.2500	1.0000	A572-65 (65 ksi)
L2	132.97-87.37	49.29	4.90	18	24.2068	35.1887	0.3750	1.5000	A572-65 (65 ksi)
L3	87.37-42.79	49.47	6.04	18	33.3475	44.3577	0.4375	1.7500	A572-65 (65 ksi)
L4	42.79-0.00	48.84		18	42.1376	53.0000	0.5000	2.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	15.2314	11.7041	321.7069	5.2363	7.6200	42.2188	643.8372	5.8532	2.2000	8.8
	25.9315	20.0656	1621.0711	8.9771	12.9731	124.9568	3244.2753	10.0347	4.0546	16.218
L2	25.4157	28.3658	2035.3844	8.4603	12.2971	165.5180	4073.4471	14.1856	3.6004	9.601
	35.7315	41.4370	6344.9205	12.3589	17.8759	354.9435	12698.1899	20.7224	5.5332	14.755
L3	34.9689	45.6997	6253.2575	11.6831	16.9405	369.1299	12514.7432	22.8542	5.0992	11.655
	45.0420	60.9887	14863.3039	15.5917	22.5337	659.6030	29746.1653	30.5001	7.0370	16.084
L4	44.1527	66.0788	14473.3834	14.7813	21.4059	676.1406	28965.8112	33.0457	6.5362	13.072
	53.8176	83.3175	29012.9766	18.6375	26.9240	1077.5879	58064.1291	41.6667	8.4480	16.896

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 179.81-132.97				1	1	1			
L2 132.97-87.37				1	1	1			
L3 87.37-42.79				1	1	1			
L4 42.79-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
170ft T Mobile									
MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	B	Surface Ar (CaAa)	170.00 - 8.00	3	3	0.000 0.100	1.6250		1.07
OSP6U(1/4)	B	Surface Ar (CaAa)	170.00 - 8.00	3	3	-0.050 0.000	0.2510		0.03
**160ft Verizon Wireless*									
HB158-1-08U8-S8F18(1-5/8)	A	Surface Ar (CaAa)	160.00 - 8.00	4	4	-0.300 -0.100	1.9800		1.70
LDF7-50A(1-5/8)	A	Surface Ar (CaAa)	179.81 - 0.00	3	3	0.000 0.100	1.9800		0.82

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
134ft Connecticut State Police								
AVA7-50(1-5/8)	B	No	Inside Pole	134.00 - 8.00	2	No Ice	0.00	0.70
						1/2" Ice	0.00	0.70
						1" Ice	0.00	0.70
LDF4-50A(1/2)	B	No	Inside Pole	134.00 - 8.00	2	No Ice	0.00	0.15
						1/2" Ice	0.00	0.15
						1" Ice	0.00	0.15
LDF7-50A(1-5/8)	B	No	Inside Pole	134.00 - 8.00	4	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
						1" Ice	0.00	0.82
124ft Sprint PCS								
HB114-1-08U4-M5J(1-1/4)	C	No	Inside Pole	124.00 - 8.00	3	No Ice	0.00	1.08
						1/2" Ice	0.00	1.08
						1" Ice	0.00	1.08
HB114-21U3M12-XXXF(1-1/4)	C	No	Inside Pole	124.00 - 8.00	1	No Ice	0.00	1.22
						1/2" Ice	0.00	1.22
						1" Ice	0.00	1.22
63ft Sprint PCS								
LDF4-50A(1/2)	C	No	Inside Pole	63.00 - 8.00	1	No Ice	0.00	0.15
						1/2" Ice	0.00	0.15
						1" Ice	0.00	0.15
LDF7-50A(1-5/8)	C	No	Inside Pole	160.00 - 8.00	10	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
						1" Ice	0.00	0.82
**120ft WMNR Fine Arts Radio*								
LDF5-50A(7/8)	A	No	Inside Pole	120.00 - 8.00	1	No Ice	0.00	0.33
						1/2" Ice	0.00	0.33
						1" Ice	0.00	0.33
**180ft AT&T Mobility*								
LDF4-50A(1/2)	A	No	Inside Pole	179.81 - 0.00	1	No Ice	0.00	0.15
						1/2" Ice	0.00	0.15
						1" Ice	0.00	0.15
LDF5-50A(7/8)	A	No	Inside Pole	179.81 - 0.00	2	No Ice	0.00	0.33
						1/2" Ice	0.00	0.33
						1" Ice	0.00	0.33
LDF7-50A(1-5/8)	A	No	Inside Pole	179.81 - 0.00	12	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
						1" Ice	0.00	0.82

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	179.81-132.97	A	0.000	0.000	49.237	0.000	0.80
		B	0.000	0.000	20.843	0.000	0.13
		C	0.000	0.000	0.000	0.000	0.22
L2	132.97-87.37	A	0.000	0.000	63.203	0.000	0.92
		B	0.000	0.000	25.664	0.000	0.38
		C	0.000	0.000	0.000	0.000	0.54
L3	87.37-42.79	A	0.000	0.000	61.778	0.000	0.90
		B	0.000	0.000	25.086	0.000	0.37
		C	0.000	0.000	0.000	0.000	0.57
L4	42.79-0.00	A	0.000	0.000	52.974	0.000	0.81
		B	0.000	0.000	19.581	0.000	0.29
		C	0.000	0.000	0.000	0.000	0.45

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	179.81-132.97	A	2.334	0.000	0.000	104.654	0.000	2.39
		B		0.000	0.000	69.270	0.000	1.09
		C		0.000	0.000	0.000	0.000	0.22
L2	132.97-87.37	A	2.254	0.000	0.000	132.218	0.000	2.93
		B		0.000	0.000	85.294	0.000	1.56
		C		0.000	0.000	0.000	0.000	0.54
L3	87.37-42.79	A	2.139	0.000	0.000	127.459	0.000	2.79
		B		0.000	0.000	81.593	0.000	1.47
		C		0.000	0.000	0.000	0.000	0.57

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L4	42.79-0.00	A	1.916	0.000	0.000	107.702	0.000	2.33
		B		0.000	0.000	61.683	0.000	1.08
		C		0.000	0.000	0.000	0.000	0.45

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	179.81-132.97	-0.4921	-0.5155	-0.2496	-0.5281
L2	132.97-87.37	-0.6851	-0.5948	-0.3807	-0.6603
L3	87.37-42.79	-0.7502	-0.6539	-0.4593	-0.7934
L4	42.79-0.00	-0.7691	-0.6564	-0.5825	-0.8722

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	6	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	132.97 - 170.00	1.0000	1.0000
L1	7	OSP6U(1/4)	132.97 - 170.00	1.0000	1.0000
L1	14	HB158-1-08U8-S8F18(1-5/8)	132.97 - 160.00	1.0000	1.0000
L1	22	LDF7-50A(1-5/8)	132.97 - 179.81	1.0000	1.0000
L2	6	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	87.37 - 132.97	1.0000	1.0000
L2	7	OSP6U(1/4)	87.37 - 132.97	1.0000	1.0000
L2	14	HB158-1-08U8-S8F18(1-5/8)	87.37 - 132.97	1.0000	1.0000
L2	22	LDF7-50A(1-5/8)	87.37 - 132.97	1.0000	1.0000
L3	6	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	42.79 - 87.37	1.0000	1.0000
L3	7	OSP6U(1/4)	42.79 - 87.37	1.0000	1.0000
L3	14	HB158-1-08U8-S8F18(1-5/8)	42.79 - 87.37	1.0000	1.0000
L3	22	LDF7-50A(1-5/8)	42.79 - 87.37	1.0000	1.0000

Discrete Tower Loads

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
**AT&T Mobility* Platform Mount [LP 601-1]	B	None		0.0000	180.00	No Ice 1/2" Ice 1" Ice	28.47 33.59 38.71	28.47 33.59 38.71	1.12 1.51 1.91
Transition Ladder	A	From Leg	2.00 0.00 -4.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	6.00 8.00 10.00	6.00 8.00 10.00	0.16 0.24 0.32
7770.00 w/ Mount Pipe	A	From Leg	3.00 -6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
7770.00 w/ Mount Pipe	B	From Leg	3.00 -6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
7770.00 w/ Mount Pipe	C	From Leg	3.00 -6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
ASP-952	A	From Leg	3.00 -1.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	3.02 4.16 5.30	3.02 4.16 5.30	0.02 0.04 0.07
ASP-952	B	From Leg	3.00 -1.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	3.02 4.16 5.30	3.02 4.16 5.30	0.02 0.04 0.07
ASP-952	C	From Leg	3.00 -1.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	3.02 4.16 5.30	3.02 4.16 5.30	0.02 0.04 0.07
AM-X-CD-16-65-00T-RET w/ Mount Pipe	A	From Leg	3.00 2.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	8.26 8.82 9.35	6.30 7.48 8.37	0.07 0.14 0.21
AM-X-CD-16-65-00T-RET w/ Mount Pipe	B	From Leg	3.00 2.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	8.26 8.82 9.35	6.30 7.48 8.37	0.07 0.14 0.21
AM-X-CD-14-65-00T-RET w/ Mount Pipe	C	From Leg	3.00 2.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.23 5.62 6.01	4.02 4.63 5.26	0.05 0.10 0.15
7770.00 w/ Mount Pipe	C	From Leg	3.00 6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
7770.00 w/ Mount Pipe	C	From Leg	3.00 6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
7770.00 w/ Mount Pipe	C	From Leg	3.00 6.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	5.75 6.18 6.61	4.25 5.01 5.71	0.06 0.10 0.16
(2) LGP13519	A	From Leg	3.00 0.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	0.29 0.36 0.44	0.18 0.24 0.31	0.01 0.01 0.01
(2) LGP13519	B	From Leg	3.00 0.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	0.29 0.36 0.44	0.18 0.24 0.31	0.01 0.01 0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(2) LGP13519	C	From Leg	3.00 0.00 5.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	0.29 0.36 0.44	0.18 0.24 0.31	0.01 0.01 0.01
(2) LGP21401	A	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	1.10 1.24 1.38	0.21 0.27 0.35	0.01 0.02 0.03
(2) LGP21401	B	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	1.10 1.24 1.38	0.21 0.27 0.35	0.01 0.02 0.03
(2) LGP21401	C	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	1.10 1.24 1.38	0.21 0.27 0.35	0.01 0.02 0.03
(2) RRUS 11	A	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.78 2.99 3.21	1.19 1.33 1.49	0.05 0.07 0.10
(2) RRUS 11	B	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.78 2.99 3.21	1.19 1.33 1.49	0.05 0.07 0.10
(2) RRUS 11	C	From Leg	3.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.78 2.99 3.21	1.19 1.33 1.49	0.05 0.07 0.10
DC6-48-60-18-8F	A	From Leg	1.00 0.00 2.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	0.79 1.27 1.45	0.79 1.27 1.45	0.02 0.03 0.05
9' x 2" Pipe Mount	A	From Leg	3.00 -1.00 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.14 3.07 4.01	2.14 3.07 4.01	0.07 0.08 0.10
9' x 2" Pipe Mount	B	From Leg	3.00 -1.00 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.14 3.07 4.01	2.14 3.07 4.01	0.07 0.08 0.10
9' x 2" Pipe Mount	C	From Leg	3.00 -1.00 0.00	0.0000	180.00	No Ice 1/2" Ice 1" Ice	2.14 3.07 4.01	2.14 3.07 4.01	0.07 0.08 0.10
**170ft T-Mobile* Platform Mount [LP 303-1]	B	None		0.0000	170.00	No Ice 1/2" Ice 1" Ice	14.66 18.87 23.08	14.66 18.87 23.08	1.25 1.48 1.71
(2) APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	6.82 7.28 7.72	3.49 4.26 4.96	0.06 0.11 0.16
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	6.82 7.28 7.72	3.49 4.26 4.96	0.06 0.11 0.16
LNX-6515DS-A1M w/ Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.08 0.17 0.27
(2) LNX-6515DS-A1M w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.08 0.17 0.27

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
(2) RRUS 11 B2	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B2	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B2	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
(2) RRUS 11 B4	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B4	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B4	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
(2) RRUS 11 B12	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B12	B	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
RRUS 11 B12	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	0.05 0.07 0.10
Fastback Networks - IBR 1300_CCIV2	A	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	0.67 0.78 0.89	0.31 0.38 0.47	0.01 0.01 0.02
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	6.82 7.28 7.72	3.49 4.26 4.96	0.06 0.11 0.16
LNX-6515DS-A1M w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.08 0.17 0.27
8'x2" Antenna Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06
8'x2" Antenna Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06
8'x2" Antenna Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	170.00	No Ice 1/2" Ice 1" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06
160ft Verizon Wireless Platform Mount [LP 601-1]	B	None		0.0000	160.00	No Ice 1/2" Ice 1" Ice	28.47 33.59 38.71	28.47 33.59 38.71	1.12 1.51 1.91

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Transition Ladder	A	From Leg	2.00 0.00 -4.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	6.00 8.00 10.00	6.00 8.00 10.00	0.16 0.24 0.32
LPA-80080-6CF-EDIN w/ Mount Pipe	A	From Leg	3.00 -6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
LPA-80080-6CF-EDIN w/ Mount Pipe	B	From Leg	3.00 -6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
LPA-80080-6CF-EDIN w/ Mount Pipe	C	From Leg	3.00 -6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
LPA-80080-6CF-EDIN w/ Mount Pipe	A	From Leg	3.00 -2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
LPA-80080-6CF-EDIN w/ Mount Pipe	B	From Leg	3.00 -2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
LPA-80080-6CF-EDIN w/ Mount Pipe	C	From Leg	3.00 -2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	4.56 5.11 5.61	10.64 11.81 12.70	0.05 0.11 0.19
SBNHH-1D65B w/ Mount Pipe	A	From Leg	3.00 2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
SBNHH-1D65B w/ Mount Pipe	B	From Leg	3.00 2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
SBNHH-1D65B w/ Mount Pipe	C	From Leg	3.00 2.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
SBNHH-1D65B w/ Mount Pipe	A	From Leg	3.00 6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
SBNHH-1D65B w/ Mount Pipe	B	From Leg	3.00 6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
SBNHH-1D65B w/ Mount Pipe	C	From Leg	3.00 6.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	8.32 8.88 9.40	7.00 8.19 9.08	0.07 0.13 0.21
(2) FD9R6004/2C-3L	A	From Leg	3.00 0.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	0.31 0.39 0.47	0.08 0.12 0.17	0.00 0.01 0.01
(2) FD9R6004/2C-3L	B	From Leg	3.00 0.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	0.31 0.39 0.47	0.08 0.12 0.17	0.00 0.01 0.01
(2) FD9R6004/2C-3L	C	From Leg	3.00 0.00 0.00	0.0000	160.00	No Ice 1/2" Ice 1" Ice	0.31 0.39 0.47	0.08 0.12 0.17	0.00 0.01 0.01
B13 RRH 4X30	A	From Leg	3.00	0.0000	160.00	No Ice	2.06	1.32	0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1/2"	2.24	1.48	0.07
			0.00			Ice	2.43	1.64	0.09
						1" Ice			
B13 RRH 4X30	B	From Leg	3.00	0.0000	160.00	No Ice	2.06	1.32	0.06
			0.00			1/2"	2.24	1.48	0.07
			0.00			Ice	2.43	1.64	0.09
						1" Ice			
B13 RRH 4X30	C	From Leg	3.00	0.0000	160.00	No Ice	2.06	1.32	0.06
			0.00			1/2"	2.24	1.48	0.07
			0.00			Ice	2.43	1.64	0.09
						1" Ice			
B5 RRH4X30-4R	A	From Leg	3.00	0.0000	160.00	No Ice	2.12	1.29	0.05
			0.00			1/2"	2.31	1.45	0.07
			0.00			Ice	2.50	1.61	0.09
						1" Ice			
B5 RRH4X30-4R	B	From Leg	3.00	0.0000	160.00	No Ice	2.12	1.29	0.05
			0.00			1/2"	2.31	1.45	0.07
			0.00			Ice	2.50	1.61	0.09
						1" Ice			
B5 RRH4X30-4R	C	From Leg	3.00	0.0000	160.00	No Ice	2.12	1.29	0.05
			0.00			1/2"	2.31	1.45	0.07
			0.00			Ice	2.50	1.61	0.09
						1" Ice			
B66A RRH4X45	A	From Leg	3.00	0.0000	160.00	No Ice	2.58	1.63	0.06
			0.00			1/2"	2.79	1.81	0.08
			0.00			Ice	3.01	2.00	0.10
						1" Ice			
B66A RRH4X45	B	From Leg	3.00	0.0000	160.00	No Ice	2.58	1.63	0.06
			0.00			1/2"	2.79	1.81	0.08
			0.00			Ice	3.01	2.00	0.10
						1" Ice			
B66A RRH4X45	C	From Leg	3.00	0.0000	160.00	No Ice	2.58	1.63	0.06
			0.00			1/2"	2.79	1.81	0.08
			0.00			Ice	3.01	2.00	0.10
						1" Ice			
(2) DB-T1-6Z-8AB-0Z	B	From Leg	3.00	0.0000	160.00	No Ice	4.80	2.00	0.04
			0.00			1/2"	5.07	2.19	0.08
			0.00			Ice	5.35	2.39	0.12
						1" Ice			
134 Connecticut State Police									
(3) RMV5-2xx T-Arm Mounts [TA 702-3]	B	None		0.0000	134.00	No Ice	5.64	5.64	0.34
						1/2"	6.55	6.55	0.43
						Ice	7.46	7.46	0.52
						1" Ice			
SC479-HF1LDF	A	From Face	3.00	0.0000	134.00	No Ice	5.03	5.03	0.03
			-3.00			1/2"	6.51	6.51	0.07
			7.00			Ice	8.00	8.00	0.11
						1" Ice			
SC442D-HF2LDF	A	From Face	3.00	0.0000	134.00	No Ice	7.53	7.53	0.08
			3.00			1/2"	12.20	12.20	0.15
			10.00			Ice	14.29	14.29	0.23
						1" Ice			
SC442D-HF2LDF	B	From Face	3.00	0.0000	134.00	No Ice	7.53	7.53	0.08
			-3.00			1/2"	12.20	12.20	0.15
			10.00			Ice	14.29	14.29	0.23
						1" Ice			
WPA-700102-4CF-EDIN-9 w/ Mount Pipe	B	From Face	3.00	0.0000	134.00	No Ice	3.81	3.97	0.03
			3.00			1/2"	4.17	4.58	0.07
			0.00			Ice	4.54	5.19	0.11
						1" Ice			
(2) DB809DK-Y	C	From Face	3.00	0.0000	134.00	No Ice	3.39	3.39	0.03
			0.00			1/2"	4.55	4.55	0.06
			5.00			Ice	5.73	5.73	0.09
						1" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
432E-83I-01-T	A	From Face	3.00 0.00 7.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice	1.20 1.34 1.48	0.75 0.86 0.98	0.03 0.04 0.05
422-86A-99575-18BW	B	From Face	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice	2.96 3.17 3.39	1.20 1.35 1.51	0.05 0.07 0.09
(2) 6' x 2" Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
6' x 2" Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
(2) 6' x 2" Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	134.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
3.5' Hor 2.5x2.5 Angle	A	From Face	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice	0.88 1.13 1.38	0.05 0.08 0.12	0.04 0.05 0.06
3.5' Hor 2.5x2.5 Angle	B	From Face	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice	0.88 1.13 1.38	0.05 0.08 0.12	0.04 0.05 0.06
3.5' Hor 2.5x2.5 Angle	C	From Face	3.00 0.00 0.00	0.0000	131.00	No Ice 1/2" Ice 1" Ice	0.88 1.13 1.38	0.05 0.08 0.12	0.04 0.05 0.06
Side Arm Mount [SO 701-3]	C	None		0.0000	131.00	No Ice 1/2" Ice 1" Ice	2.83 3.92 5.01	2.83 3.92 5.01	0.20 0.24 0.28
124ft Sprint PCS Platform Mount [LP 601-1]	B	None		0.0000	124.00	No Ice 1/2" Ice 1" Ice	28.47 33.59 38.71	28.47 33.59 38.71	1.12 1.51 1.91
Transition Ladder	C	From Face	2.00 0.00 -4.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	6.00 8.00 10.00	6.00 8.00 10.00	0.16 0.24 0.32
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Face	3.00 -6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	6.58 7.03 7.47	4.96 5.75 6.47	0.08 0.13 0.19
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	6.58 7.03 7.47	4.96 5.75 6.47	0.08 0.13 0.19
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Face	3.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	6.58 7.03 7.47	4.96 5.75 6.47	0.08 0.13 0.19
APXVSPP18-C-A20 w/ Mount Pipe	A	From Face	3.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	8.26 8.82 9.35	6.95 8.13 9.02	0.08 0.15 0.23
APXVSPP18-C-A20 w/ Mount Pipe	B	From Face	3.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	8.26 8.82 9.35	6.95 8.13 9.02	0.08 0.15 0.23

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
APXVSPP18-C-A20 w/ Mount Pipe	C	From Face	3.00 6.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	8.26 8.82 9.35	6.95 8.13 9.02	0.08 0.15 0.23
TD-RRH8x20-25	A	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	4.05 4.30 4.56	1.53 1.71 1.90	0.07 0.10 0.13
TD-RRH8x20-25	B	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	4.05 4.30 4.56	1.53 1.71 1.90	0.07 0.10 0.13
TD-RRH8x20-25	C	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	4.05 4.30 4.56	1.53 1.71 1.90	0.07 0.10 0.13
800MHZ RRH	A	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	2.13 2.32 2.51	1.77 1.95 2.13	0.05 0.07 0.10
800MHZ RRH	B	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	2.13 2.32 2.51	1.77 1.95 2.13	0.05 0.07 0.10
800MHZ RRH	C	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	2.13 2.32 2.51	1.77 1.95 2.13	0.05 0.07 0.10
(2) 6' x 2" Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
(2) 6' x 2" Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
(2) 6' x 2" Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
Side Arm Mount [SO 701-3]	C	From Leg	0.50 0.00 1.00	0.0000	124.00	No Ice 1/2" Ice 1" Ice	2.83 3.92 5.01	2.83 3.92 5.01	0.20 0.24 0.28
**120ft WMNR Fine Arts Radio Platform Mount [LP 601-1]	B	None		0.0000	120.00	No Ice 1/2" Ice 1" Ice	28.47 33.59 38.71	28.47 33.59 38.71	1.12 1.51 1.91
100-1	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice	4.80 5.07 5.35	6.00 6.30 6.61	0.02 0.08 0.16
(2) 8'x2" Antenna Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06
(2) 8'x2" Antenna Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06
(2) 8'x2" Antenna Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	1.90 2.73 3.40	1.90 2.73 3.40	0.03 0.04 0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice			
Transition Ladder	C	From Face	2.00 0.00 -4.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice	6.00 8.00 10.00	6.00 8.00 10.00	0.16 0.24 0.32
(2) Side Arm Mount [SO 301-1]	C	From Face	3.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice 1" Ice	1.00 1.39 1.78	0.90 1.42 1.94	0.02 0.03 0.04
80ft Connecticut State Police									
Pipe Mount [PM 601-1]	A	From Leg	0.50 0.00 0.00	0.0000	80.00	No Ice 1/2" Ice 1" Ice	3.00 3.74 4.48	0.90 1.12 1.34	0.07 0.08 0.09
Pipe Mount [PM 601-1]	C	From Leg	0.50 0.00 0.00	0.0000	80.00	No Ice 1/2" Ice 1" Ice	3.00 3.74 4.48	0.90 1.12 1.34	0.07 0.08 0.09
63ft Sprint PCS									
GPS_A	C	From Leg	4.00 0.00 0.00	0.0000	63.00	No Ice 1/2" Ice 1" Ice	0.26 0.32 0.39	0.26 0.32 0.39	0.00 0.00 0.01
Side Arm Mount [SO 701-1]	C	From Leg	0.50 0.00 0.00	0.0000	63.00	No Ice 1/2" Ice 1" Ice	0.85 1.14 1.43	1.67 2.34 3.01	0.07 0.08 0.09
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Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice

Comb. No.	Description
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	179.813 - 132.966	Pole	Max Tension	27	0.00	-0.01	-0.00
			Max. Compression	26	-40.96	5.70	11.89
			Max. Mx	20	-9.73	651.85	1.34
			Max. My	2	-9.70	0.09	656.64
			Max. Vy	20	-20.35	651.85	1.34
			Max. Vx	2	-20.45	0.09	656.64
			Max. Torque	16			-5.73
L2	132.966 - 87.3652	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.32	16.00	11.21
			Max. Mx	20	-24.60	1925.43	2.09
			Max. My	2	-24.58	3.25	1930.83
			Max. Vy	20	-32.23	1925.43	2.09
			Max. Vx	2	-32.32	3.25	1930.83
			Max. Torque	16			-6.92
L3	87.3652 - 42.7922	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-96.14	19.94	14.35
			Max. Mx	20	-38.70	3392.53	3.35
			Max. My	2	-38.69	5.13	3402.62
			Max. Vy	20	-35.13	3392.53	3.35
			Max. Vx	2	-35.26	5.13	3402.62
			Max. Torque	16			-6.94
L4	42.7922 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-123.85	22.65	17.19
			Max. Mx	20	-58.82	5170.91	4.65
			Max. My	2	-58.82	6.67	5187.32
			Max. Vy	20	-37.38	5170.91	4.65
			Max. Vx	2	-37.51	6.67	5187.32
			Max. Torque	16			-6.92

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	38	123.85	4.72	8.20
	Max. H_x	20	58.86	37.32	0.02
	Max. H_z	2	58.86	0.02	37.45
	Max. M_x	2	5187.32	0.02	37.45
	Max. M_z	8	5162.35	-37.32	-0.02
	Max. Torsion	4	6.81	-18.87	32.81
	Min. Vert	5	44.14	-18.87	32.81
	Min. H_x	8	58.86	-37.32	-0.02
	Min. H_z	14	58.86	-0.02	-37.45
	Min. M_x	14	-5183.05	-0.02	-37.45
	Min. M_z	20	-5170.91	37.32	0.02
	Min. Torsion	16	-6.90	18.87	-32.81

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	49.05	-0.00	-0.00	-1.79	3.46	-0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	58.86	-0.02	-37.45	-5187.32	6.67	-6.74
0.9 Dead+1.6 Wind 0 deg - No Ice	44.14	-0.02	-37.45	-5087.51	5.54	-6.65
1.2 Dead+1.6 Wind 30 deg - No Ice	58.86	18.87	-32.81	-4548.03	-2609.64	-6.81
0.9 Dead+1.6 Wind 30 deg - No Ice	44.14	18.87	-32.81	-4460.54	-2560.76	-6.72
1.2 Dead+1.6 Wind 60 deg - No Ice	58.86	32.31	-18.71	-2592.47	-4468.90	-5.09
0.9 Dead+1.6 Wind 60 deg - No Ice	44.14	32.31	-18.71	-2542.32	-4384.42	-5.03
1.2 Dead+1.6 Wind 90 deg - No Ice	58.86	37.32	0.02	0.51	-5162.35	-2.01
0.9 Dead+1.6 Wind 90 deg - No Ice	44.14	37.32	0.02	1.05	-5064.63	-2.00
1.2 Dead+1.6 Wind 120 deg - No Ice	58.86	32.33	18.74	2592.76	-4471.42	1.64
0.9 Dead+1.6 Wind 120 deg - No Ice	44.14	32.33	18.74	2543.71	-4386.92	1.59
1.2 Dead+1.6 Wind 150 deg - No Ice	58.86	18.68	32.44	4489.65	-2581.29	4.88
0.9 Dead+1.6 Wind 150 deg - No Ice	44.14	18.68	32.44	4404.31	-2532.95	4.80
1.2 Dead+1.6 Wind 180 deg - No Ice	58.86	0.02	37.45	5183.05	1.52	6.82
0.9 Dead+1.6 Wind 180 deg - No Ice	44.14	0.02	37.45	5084.43	0.45	6.72
1.2 Dead+1.6 Wind 210 deg - No Ice	58.86	-18.87	32.81	4543.96	2617.85	6.90
0.9 Dead+1.6 Wind 210 deg - No Ice	44.14	-18.87	32.81	4457.60	2566.76	6.81
1.2 Dead+1.6 Wind 240 deg - No Ice	58.86	-32.31	18.71	2588.45	4477.31	5.11
0.9 Dead+1.6 Wind 240 deg - No Ice	44.14	-32.31	18.71	2539.42	4390.56	5.05
1.2 Dead+1.6 Wind 270 deg - No Ice	58.86	-37.32	-0.02	-4.65	5170.91	1.93
0.9 Dead+1.6 Wind 270 deg - No Ice	44.14	-37.32	-0.02	-4.04	5070.88	1.93
1.2 Dead+1.6 Wind 300 deg - No Ice	58.86	-32.33	-18.74	-2597.09	4479.93	-1.73
0.9 Dead+1.6 Wind 300 deg - No Ice	44.14	-32.33	-18.74	-2546.83	4393.14	-1.69

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.6 Wind 330 deg - No Ice	58.86	-18.68	-32.44	-4494.05	2589.63	-4.90
0.9 Dead+1.6 Wind 330 deg - No Ice	44.14	-18.68	-32.44	-4407.48	2539.04	-4.82
1.2 Dead+1.0 Ice+1.0 Temp	123.85	-0.00	-0.00	-17.19	22.65	-0.02
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	123.85	-0.01	-9.44	-1532.49	24.55	-2.02
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	123.85	4.69	-8.16	-1328.67	-730.17	-2.09
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	123.85	7.72	-4.47	-734.16	-1215.42	-1.59
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	123.85	8.91	0.01	-15.28	-1408.05	-0.70
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	123.85	7.72	4.48	703.09	-1217.33	0.38
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	123.85	4.72	8.20	1299.34	-735.29	1.38
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	123.85	0.01	9.44	1498.13	20.73	1.99
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	123.85	-4.69	8.16	1294.35	775.48	2.06
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	123.85	-7.72	4.47	699.82	1260.78	1.56
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	123.85	-8.91	-0.01	-19.10	1453.43	0.66
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	123.85	-7.72	-4.48	-737.50	1262.69	-0.42
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	123.85	-4.72	-8.20	-1333.74	780.59	-1.41
Dead+Wind 0 deg - Service	49.05	-0.00	-9.52	-1310.20	4.20	-1.79
Dead+Wind 30 deg - Service	49.05	4.80	-8.34	-1149.06	-656.05	-1.82
Dead+Wind 60 deg - Service	49.05	8.21	-4.76	-655.45	-1125.09	-1.37
Dead+Wind 90 deg - Service	49.05	9.49	0.00	-1.18	-1300.03	-0.55
Dead+Wind 120 deg - Service	49.05	8.22	4.76	652.92	-1125.74	0.42
Dead+Wind 150 deg - Service	49.05	4.75	8.25	1131.57	-648.82	1.27
Dead+Wind 180 deg - Service	49.05	0.00	9.52	1306.54	2.90	1.79
Dead+Wind 210 deg - Service	49.05	-4.80	8.34	1145.40	663.16	1.83
Dead+Wind 240 deg - Service	49.05	-8.21	4.76	651.80	1132.21	1.37
Dead+Wind 270 deg - Service	49.05	-9.49	-0.00	-2.48	1307.15	0.54
Dead+Wind 300 deg - Service	49.05	-8.22	-4.76	-656.58	1132.86	-0.42
Dead+Wind 330 deg - Service	49.05	-4.75	-8.25	-1135.24	655.93	-1.28

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-49.05	0.00	0.00	49.05	0.00	0.000%
2	-0.02	-58.86	-37.45	0.02	58.86	37.45	0.000%
3	-0.02	-44.14	-37.45	0.02	44.14	37.45	0.000%
4	18.87	-58.86	-32.81	-18.87	58.86	32.81	0.000%
5	18.87	-44.14	-32.81	-18.87	44.14	32.81	0.000%
6	32.31	-58.86	-18.71	-32.31	58.86	18.71	0.000%
7	32.31	-44.14	-18.71	-32.31	44.14	18.71	0.000%
8	37.32	-58.86	0.02	-37.32	58.86	-0.02	0.000%
9	37.32	-44.14	0.02	-37.32	44.14	-0.02	0.000%
10	32.33	-58.86	18.74	-32.33	58.86	-18.74	0.000%
11	32.33	-44.14	18.74	-32.33	44.14	-18.74	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
12	18.68	-58.86	32.44	-18.68	58.86	-32.44	0.000%
13	18.68	-44.14	32.44	-18.68	44.14	-32.44	0.000%
14	0.02	-58.86	37.45	-0.02	58.86	-37.45	0.000%
15	0.02	-44.14	37.45	-0.02	44.14	-37.45	0.000%
16	-18.87	-58.86	32.81	18.87	58.86	-32.81	0.000%
17	-18.87	-44.14	32.81	18.87	44.14	-32.81	0.000%
18	-32.31	-58.86	18.71	32.31	58.86	-18.71	0.000%
19	-32.31	-44.14	18.71	32.31	44.14	-18.71	0.000%
20	-37.32	-58.86	-0.02	37.32	58.86	0.02	0.000%
21	-37.32	-44.14	-0.02	37.32	44.14	0.02	0.000%
22	-32.33	-58.86	-18.74	32.33	58.86	18.74	0.000%
23	-32.33	-44.14	-18.74	32.33	44.14	18.74	0.000%
24	-18.68	-58.86	-32.44	18.68	58.86	32.44	0.000%
25	-18.68	-44.14	-32.44	18.68	44.14	32.44	0.000%
26	0.00	-123.85	0.00	0.00	123.85	0.00	0.000%
27	-0.01	-123.85	-9.44	0.01	123.85	9.44	0.000%
28	4.69	-123.85	-8.16	-4.69	123.85	8.16	0.000%
29	7.72	-123.85	-4.47	-7.72	123.85	4.47	0.000%
30	8.91	-123.85	0.01	-8.91	123.85	-0.01	0.000%
31	7.72	-123.85	4.48	-7.72	123.85	-4.48	0.000%
32	4.72	-123.85	8.20	-4.72	123.85	-8.20	0.000%
33	0.01	-123.85	9.44	-0.01	123.85	-9.44	0.000%
34	-4.69	-123.85	8.16	4.69	123.85	-8.16	0.000%
35	-7.72	-123.85	4.47	7.72	123.85	-4.47	0.000%
36	-8.91	-123.85	-0.01	8.91	123.85	0.01	0.000%
37	-7.72	-123.85	-4.48	7.72	123.85	4.48	0.000%
38	-4.72	-123.85	-8.20	4.72	123.85	8.20	0.000%
39	-0.00	-49.05	-9.52	0.00	49.05	9.52	0.000%
40	4.80	-49.05	-8.34	-4.80	49.05	8.34	0.000%
41	8.21	-49.05	-4.76	-8.21	49.05	4.76	0.000%
42	9.49	-49.05	0.00	-9.49	49.05	-0.00	0.000%
43	8.22	-49.05	4.76	-8.22	49.05	-4.76	0.000%
44	4.75	-49.05	8.25	-4.75	49.05	-8.25	0.000%
45	0.00	-49.05	9.52	-0.00	49.05	-9.52	0.000%
46	-4.80	-49.05	8.34	4.80	49.05	-8.34	0.000%
47	-8.21	-49.05	4.76	8.21	49.05	-4.76	0.000%
48	-9.49	-49.05	-0.00	9.49	49.05	0.00	0.000%
49	-8.22	-49.05	-4.76	8.22	49.05	4.76	0.000%
50	-4.75	-49.05	-8.25	4.75	49.05	8.25	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000707
2	Yes	5	0.00000001	0.00090678
3	Yes	5	0.00000001	0.00036875
4	Yes	6	0.00000001	0.00079191
5	Yes	6	0.00000001	0.00019729
6	Yes	6	0.00000001	0.00089299
7	Yes	6	0.00000001	0.00023424
8	Yes	5	0.00000001	0.00048376
9	Yes	5	0.00000001	0.00019549
10	Yes	6	0.00000001	0.00084755
11	Yes	6	0.00000001	0.00021831
12	Yes	6	0.00000001	0.00081338
13	Yes	6	0.00000001	0.00020703
14	Yes	5	0.00000001	0.00089196
15	Yes	5	0.00000001	0.00036308
16	Yes	6	0.00000001	0.00091240
17	Yes	6	0.00000001	0.00023806
18	Yes	6	0.00000001	0.00079973
19	Yes	6	0.00000001	0.00020152
20	Yes	5	0.00000001	0.00049575
21	Yes	5	0.00000001	0.00020026
22	Yes	6	0.00000001	0.00084310
23	Yes	6	0.00000001	0.00021673
24	Yes	6	0.00000001	0.00088033
25	Yes	6	0.00000001	0.00022891
26	Yes	6	0.00000001	0.00003636
27	Yes	7	0.00013714	0.00035053
28	Yes	7	0.00013530	0.00073563
29	Yes	7	0.00013577	0.00073778
30	Yes	7	0.00013738	0.00030124
31	Yes	7	0.00013566	0.00065283
32	Yes	7	0.00013479	0.00071050
33	Yes	7	0.00013660	0.00033222
34	Yes	7	0.00013483	0.00083455
35	Yes	7	0.00013605	0.00066875
36	Yes	7	0.00013781	0.00031760
37	Yes	7	0.00013599	0.00076486
38	Yes	7	0.00013510	0.00088386
39	Yes	5	0.00000001	0.00008828
40	Yes	5	0.00000001	0.00031686
41	Yes	5	0.00000001	0.00038715
42	Yes	4	0.00000001	0.00088779
43	Yes	5	0.00000001	0.00033996
44	Yes	5	0.00000001	0.00031489
45	Yes	5	0.00000001	0.00008721
46	Yes	5	0.00000001	0.00041134
47	Yes	5	0.00000001	0.00031127
48	Yes	4	0.00000001	0.00090185
49	Yes	5	0.00000001	0.00034646
50	Yes	5	0.00000001	0.00037840

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	179.813 - 132.966	60.989	40	3.4752	0.0432
L2	136.659 - 87.3652	32.677	46	2.5652	0.0120
L3	92.2632 - 42.7922	13.554	46	1.5109	0.0044
L4	48.8362 - 0	3.524	46	0.6790	0.0015

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.00	Platform Mount [LP 601-1]	40	60.989	3.4752	0.0434	15577
170.00	Platform Mount [LP 303-1]	40	54.103	3.2771	0.0349	7937
160.00	Platform Mount [LP 601-1]	40	47.238	3.0722	0.0267	3930
134.00	(3) RMV5-2xx T-Arm Mounts [TA 702-3]	46	31.217	2.5037	0.0109	1849
131.00	3.5' Hor 2.5x2.5 Angle	46	29.624	2.4333	0.0098	1894
124.00	Platform Mount [LP 601-1]	46	26.120	2.2660	0.0077	2023
120.00	Platform Mount [LP 601-1]	46	24.248	2.1694	0.0069	2105
80.00	Pipe Mount [PM 601-1]	46	9.927	1.2476	0.0036	2890
63.00	GPS_A	40	5.932	0.9203	0.0024	2876

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	179.813 - 132.966	239.298	4	13.6807	0.1650
L2	136.659 - 87.3652	129.009	16	10.1517	0.0455
L3	92.2632 - 42.7922	53.669	16	5.9909	0.0166
L4	48.8362 - 0	13.967	16	2.6925	0.0056

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.00	Platform Mount [LP 601-1]	4	239.298	13.6807	0.1669	4381
170.00	Platform Mount [LP 303-1]	4	212.524	12.9162	0.1340	2230
160.00	Platform Mount [LP 601-1]	4	185.812	12.1242	0.1022	1099
134.00	(3) RMV5-2xx T-Arm Mounts [TA 702-3]	16	123.275	9.9106	0.0412	505
131.00	3.5' Hor 2.5x2.5 Angle	16	117.016	9.6345	0.0370	516
124.00	Platform Mount [LP 601-1]	16	103.240	8.9768	0.0293	545
120.00	Platform Mount [LP 601-1]	16	95.870	8.5960	0.0261	564
80.00	Pipe Mount [PM 601-1]	16	39.320	4.9480	0.0138	742
63.00	GPS_A	16	23.505	3.6499	0.0091	732

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	46.85	0.00	0.0	19.4065	-9.63	1441.80	0.007

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L2	132.966 - 87.3652 (2)	TP35.1887x24.2068x0.375	49.29	0.00	0.0	40.1382	-24.50	2982.07	0.008
L3	87.3652 - 42.7922 (3)	TP44.3577x33.3475x0.4375	49.47	0.00	0.0	58.4593	-38.04	4343.23	0.009
L4	42.7922 - 0 (4)	TP53x42.1376x0.5	48.84	0.00	0.0	68.2123	-42.29	5067.83	0.008

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	661.39	723.40	0.914	0.00	723.40	0.000
L2	132.966 - 87.3652 (2)	TP35.1887x24.2068x0.375	1949.72	2061.23	0.946	0.00	2061.23	0.000
L3	87.3652 - 42.7922 (3)	TP44.3577x33.3475x0.4375	3363.66	3750.45	0.897	0.00	3750.45	0.000
L4	42.7922 - 0 (4)	TP53x42.1376x0.5	3656.82	4462.49	0.819	0.00	4462.49	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	179.813 - 132.966 (1)	TP25.5375x15x0.25	20.67	720.90	0.029	4.89	1448.58	0.003
L2	132.966 - 87.3652 (2)	TP35.1887x24.2068x0.375	32.72	1491.03	0.022	6.86	4127.51	0.002
L3	87.3652 - 42.7922 (3)	TP44.3577x33.3475x0.4375	35.68	2196.19	0.016	6.92	7510.08	0.001
L4	42.7922 - 0 (4)	TP53x42.1376x0.5	36.35	2563.45	0.014	6.92	8935.92	0.001

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	179.813 - 132.966 (1)	0.007	0.914	0.000	0.029	0.003	0.922	1.000	4.8.2
L2	132.966 - 87.3652 (2)	0.008	0.946	0.000	0.022	0.002	0.955	1.000	4.8.2
L3	87.3652 - 42.7922 (3)	0.009	0.897	0.000	0.016	0.001	0.906	1.000	4.8.2
L4	42.7922 - 0 (4)	0.008	0.819	0.000	0.014	0.001	0.828	1.000	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	179.813 - 132.966	Pole	TP25.5375x15x0.25	1	-9.63	1441.80	92.2	Pass
L2	132.966 - 87.3652	Pole	TP35.1887x24.2068x0.375	2	-24.50	2982.07	95.5	Pass
L3	87.3652 - 42.7922	Pole	TP44.3577x33.3475x0.4375	3	-38.04	4343.23	90.6	Pass
L4	42.7922 - 0	Pole	TP53x42.1376x0.5	4	-42.29	5067.83	82.8	Pass
							Summary	
						Pole (L2)	95.5	Pass
						RATING =	**95.5**	**Pass**

APPENDIX B

BASE LEVEL DRAWING

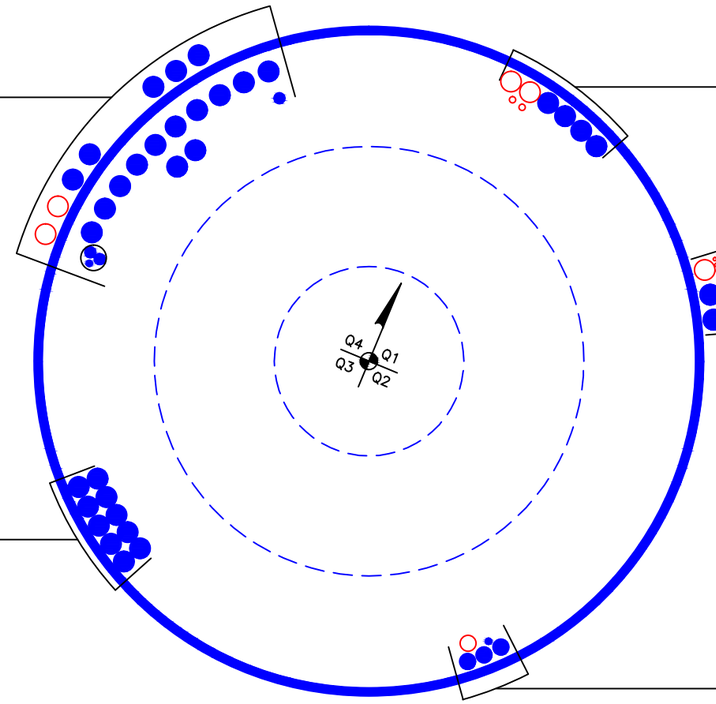
(INSTALLED)
(1) 7/8" TO 120 FT LEVEL

(RESERVED)
(2) 1-5/8" TO 160 FT LEVEL
(INSTALLED)
(2) 1-5/8" TO 160 FT LEVEL

(INSTALLED-IN CONDUIT)
(1) 1/2" TO 180 FT LEVEL
(2) 7/8" TO 180 FT LEVEL
(INSTALLED)
(15) 1-5/8" TO 180 FT LEVEL

(RESERVED)
(2) 1/2" TO 134 FT LEVEL
(2) 1-5/8" TO 134 FT LEVEL
(INSTALLED-TO BE RELOCATED TO 134 FT LEVEL)
(4) 1-5/8" TO 130 FT LEVEL

(PROPOSED)
(3) 1/4" TO 170 FT LEVEL
(1) 1-5/8" TO 170 FT LEVEL
(INSTALLED)
(2) 1-5/8" TO 170 FT LEVEL



(INSTALLED)
(10) 1-5/8" TO 160 FT LEVEL

(RESERVED)
(1) 1-1/4" TO 124 FT LEVEL
(INSTALLED)
(1) 1/2" TO 63 FT LEVEL
(3) 1-1/4" TO 124 FT LEVEL

BUSINESS UNIT: 841293 TOWER ID: C_BASELEVEL

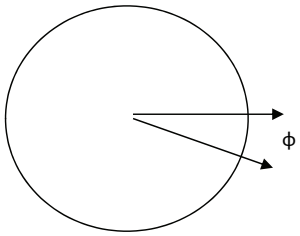
APPENDIX C

ADDITIONAL CALCULATIONS

BU#	841293	
Site Name	Kent-bulls Bridge Road	
App #	426413	Rev.1

Number Of Bolts (Ext + Mod)	24
Diameter Of Exist. Bolt Circle(inch)	62
Moment (ft. kips)	5244
Axial Compression (kips)	59
Outer Diamter of Mod. Bolt Circle(inch)	71

62928 in. kips



	Bolt Diameter (inch)	Grade	Allowable Axial (kips)	Capacity
Existing	2.25	A615 (Gr 75)	260	68.3%
Mod	**1.75**	**F1554-105**	**190**	**58.2%**

Sum Ax_i^2 44272.62

T(+) C(-)

Bolt #	ϕ °	Bolt Circle	D (in)	Radians	Cos(ϕ °)	x_i(inch)	x_i^2	Area	Ax_i	Ax_i^2	Force (Kip)	Capacities
1	18	62.00	2.25	0.314	0.951	29.483	869.233	3.98	117.23	3456.14	164.2	63.1%
2	36	62.00	2.25	0.628	0.809	25.080	628.983	3.98	99.72	2500.88	139.3	53.6%
3	54	62.00	2.25	0.942	0.588	18.221	332.017	3.98	72.45	1320.13	100.5	38.7%
4	72	62.00	2.25	1.257	0.309	9.580	91.767	3.98	38.09	364.87	51.7	19.9%
5	90	62.00	2.25	1.571	0.000	0.000	0.000	3.98	0.00	0.00	-2.5	0.9%
6	108	62.00	2.25	1.885	-0.309	-9.580	91.767	3.98	-38.09	364.87	-56.6	21.8%
7	126	62.00	2.25	2.199	-0.588	-18.221	332.017	3.98	-72.45	1320.13	-105.4	40.6%
8	144	62.00	2.25	2.513	-0.809	-25.080	628.983	3.98	-99.72	2500.88	-144.2	55.5%
9	162	62.00	2.25	2.827	-0.951	-29.483	869.233	3.98	-117.23	3456.14	-169.1	65.0%
10	180	62.00	2.25	3.142	-1.000	-31.000	961.000	3.98	-123.26	3821.01	-177.7	68.3%
11	198	62.00	2.25	3.456	-0.951	-29.483	869.233	3.98	-117.23	3456.14	-169.1	65.0%
12	216	62.00	2.25	3.770	-0.809	-25.080	628.983	3.98	-99.72	2500.88	-144.2	55.5%
13	234	62.00	2.25	4.084	-0.588	-18.221	332.017	3.98	-72.45	1320.13	-105.4	40.6%
14	252	62.00	2.25	4.398	-0.309	-9.580	91.767	3.98	-38.09	364.87	-56.6	21.8%
15	270	62.00	2.25	4.712	0.000	0.000	0.000	3.98	0.00	0.00	-2.5	0.9%
16	288	62.00	2.25	5.027	0.309	9.580	91.767	3.98	38.09	364.87	51.7	19.9%
17	306	62.00	2.25	5.341	0.588	18.221	332.017	3.98	72.45	1320.13	100.5	38.7%
18	324	62.00	2.25	5.655	0.809	25.080	628.983	3.98	99.72	2500.88	139.3	53.6%
19	342	62.00	2.25	5.969	0.951	29.483	869.233	3.98	117.23	3456.14	164.2	63.1%
20	360	62.00	2.25	6.283	1.000	31.000	961.000	3.98	123.26	3821.01	172.7	66.4%
21	**27**	**71.000**	**1.75**	**0.471**	**0.891**	**31.631**	**1000.503**	**2.41**	**76.08**	**2406.49**	**105.7**	**55.6%**
22	**117**	**71.000**	**1.75**	**2.042**	**-0.454**	**-16.117**	**259.747**	**2.41**	**-38.77**	**624.76**	**-57.6**	**30.3%**
23	**207**	**71.000**	**1.75**	**3.613**	**-0.891**	**-31.631**	**1000.503**	**2.41**	**-76.08**	**2406.49**	**-110.6**	**58.2%**
24	**297**	**71.000**	**1.75**	**5.184**	**0.454**	**16.117**	**259.747**	**2.41**	**38.77**	**624.76**	**52.6**	**27.7%**

Stiffened or Unstiffened, Ungrouted, Circular Base Plate - Any Rod Material

TIA Rev G Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data	
BU#:	*841293*
Site Name:	*Kent-Bulls Bridge Road*
App #:	*416606 Rev 1*
Pole Manufacturer:	*Other*

Reactions		
Mu:	4525.57	ft-kips
Axial, Pu:	50.917	kips
Shear, Vu:	33.89	kips
Eta Factor, η	0.5	TIA G (Fig. 4-4)

Anchor Rod Data		
Qty:	20	
Diam:	2.25	in
Rod Material:	A615-J	
Strength (Fu):	100	ksi
Yield (Fy):	75	ksi
Bolt Circle:	62	in

If No stiffeners, Criteria: AISC LRFD <-Only Applcable to Unstiffened Cases

Base Reactions have been manually adjusted to account for additional anchor rods.

Rigid
AISC LRFD
φ*Tn

Plate Data		
Diam:	68	in
Thick:	2.25	in
Grade:	60	ksi
Single-Rod B-eff:	8.41	in

Base Plate Results Flexural Check

Base Plate Stress:	44.4 ksi	
Allowable Plate Stress:	54.0 ksi	
Base Plate Stress Ratio:	82.3%	**Pass**

Rigid
AISC LRFD
φ*Fy
Y.L. Length: 32.17

Stiffener Data (Welding at both sides)		
Config:	0	*
Weld Type:	Fillet	
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

n/a

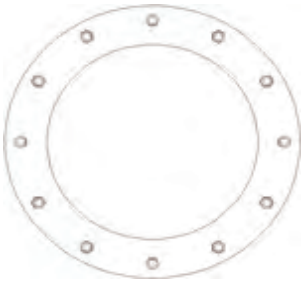
Stiffener Results

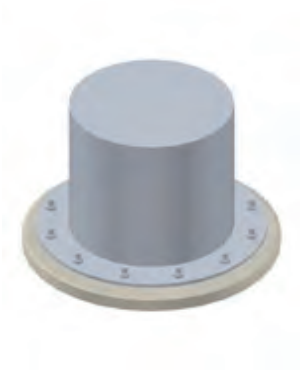
Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, fb/Fb+(fv/Fv)^2:	n/a
Plate Tension+Shear, ft/Ft+(fv/Fv)^2	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check:	n/a

Pole Data		
Diam:	53	in
Thick:	0.5	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None





* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Drilled Pier Foundation

BU # :	841293
Site Name:	Kent-Bulls Bridge Road
App. Number:	416606 Rev 1

TIA-222 Revison:	G
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	4985	
Axial Force (kips)	58	
Shear Force (kips)	37	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi

Pier Design Data		
Depth	19	ft
Ext. Above Grade	1	ft
Pier Section 1		
From 1' above grade to 19' below grade		
Pier Diameter	7.5	ft
Rebar Quantity	42	
Rebar Size	11	
Clear Cover to Ties	5.75	in
Tie Size	5	

Analysis Results		
Soil Lateral Capacity	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	5.67	-
Soil Safety Factor	1.42	-
Max Moment (kip-ft)	5190.05	-
Rating	*93.5%*	-
Soil Vertical Capacity	*Compression*	*Uplift*
Skin Friction (kips)	377.67	-
End Bearing (kips)	1062.06	-
Weight of Concrete (kips)	129.27	-
Total Capacity (kips)	1439.72	-
Axial (kips)	187.27	-
Rating	*13.0%*	-
Reinforced Concrete Capacity	*Compression*	*Uplift*
Critical Depth (ft from TOC)	5.59	-
Critical Moment (kip-ft)	5189.90	-
Critical Moment Capacity	10181.24	-
Rating	*51.0%*	-

Soil Interaction Rating	**93.5%**
Structural Foundation Rating	**51.0%**

Soil Profile

Groundwater Depth	10	ft	# of Layers	6

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	130	150	0	0	0.000	0.000					Cohesionless
2	3	3.75	0.75	135	150	0	0	0.000	0.000					Cohesionless
3	3.75	10	6.25	135	150	0	40	1.046	1.046				61	Cohesionless
4	10	14	4	72.6	87.6	0	40	1.528	1.528				100	Cohesionless
5	14	18	4	82.6	87.6	0	42	1.719	1.719				100	Cohesionless
6	18	19	1	97.6	87.6	0	44	1.843	1.843			32.0534	100	Cohesionless

Exhibit E

EBI Consulting
environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTNH541A

CTNH541A_South Kent
136 Bulls Bridge Road
South Kent, CT 06785

April 6, 2018

EBI Project Number: 6218002696

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	14.125 %

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

EBI Consulting
environmental | engineering | due diligence

April 6, 2018

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Emissions Analysis for Site: **CTNH541A – South Kent**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **136 Bulls Bridge Road, South Kent, 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.

Public 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 700 MHz band is approximately 467 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz Microwave 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 done for the proposed T-Mobile Wireless antenna facility located at **136 Bulls Bridge Road, South Kent, 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 and 20 dB for highly focused parabolic microwave dishes, 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.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel

3) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

4) 1 microwave backhaul channel (5 GHz) was considered for the proposed facility. This channel has a transmit power of 1 Watt.

5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. 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. This is rarely the case, and if so, is never continuous.

6) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas for broadcast and microwave backhaul, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

7) The antennas used in this modeling are the **RFS APX16DWV-16DWVS-E-A20** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **Commscope LNX-6515DS-A1M** for 700 MHz channels and the **Fastback IBR1300** for the proposed 5 GHz microwave backhaul. This is based on feedback from the carrier with regard to anticipated antenna selection. The **RFS APX16DWV-16DWVS-E-A20** has a maximum gain of **16.3 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. The **Fastback IBR1300** has a maximum gain of **10 dBd** at its main lobe at 5 GHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas for broadcast and microwave backhaul, 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.

8) The antenna mounting height centerline of the proposed directional broadcast panel antennas on all three sectors is **170 feet** above ground level (AGL) and **166 feet** above ground level (AGL) for the microwave panel antenna.

9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C	Sector:	D
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd
Height (AGL):	170	Height (AGL):	170	Height (AGL):	170	Height (AGL):	170
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	7,678.43	ERP (W):	7,678.43	ERP (W):	7,678.43	ERP (W):	7,678.43
Antenna A1 MPE%	**1.026**	Antenna B1 MPE%	**1.026**	Antenna C1 MPE%	**1.026**	Antenna D1 MPE%	**1.026**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	170	Height (AGL):	170	Height (AGL):	170	Height (AGL):	170
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A2 MPE%	**0.248**	Antenna B2 MPE%	**0.248**	Antenna C2 MPE%	**0.248**	Antenna D2 MPE%	**0.248**

Microwave Backhaul Data

Make / Model:	Gain	Height (AGL):	Frequency Bands	Channel Count	Total TX Power(W)	ERP (W)	MPE %	Sector
Fastback IBR1300	10 dBd	166	5 GHz	1	1	10	**0.001**	A

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile (Sector A)	**1.275 %**
AT&T	1.060%
Nextel	1.410%
CT State Police	4.030%
WMNR	0.050%
Sprint	3.810%
Verizon Wireless	2.490%
Site Total MPE %:	**14.125 %**

T-Mobile Sector A Total:	1.275 %
T-Mobile Sector B Total:	1.274 %
T-Mobile Sector C Total:	1.274 %
Site Total:	14.125 %

T-Mobile Max Power Values (Sector A)

T-Mobile _Max Power Values (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm²)	Frequency (MHz)	Allowable MPE (µW/cm²)	Calculated % MPE
T-Mobile PCS - 1900 MHz UMTS	2	1,279.74	170	3.42	PCS - 1900 MHz	1000	0.342%
T-Mobile AWS - 2100 MHz LTE	2	2,559.48	170	6.84	AWS - 2100 MHz	1000	0.684%
T-Mobile 700 MHz LTE	1	865.21	170	1.16	700 MHz	467	0.248%
T-Mobile 5 GHz Microwave	1	10	166	0.01	5 GHz	1000	0.001%
						Total:	**1.275%**

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:	1.275 %
Sector B:	1.274 %
Sector C:	1.274%
T-Mobile Per Sector Maximum (Sector A):	1.274 %
Site Total:	14.125 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **14.125%** 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.

Exhibit F

UNITED STATES POSTAL SERVICE®

Click-N-Ship®

9405 8036 9930 0637 5964 71 0067 0000 0010 6757

usps.com
$6.70
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Flat Rate Env

05/15/2018 Mailed from 06002 062S0000001309

P

PRIORITY MAIL 1-DAY™

DEBORAH CHASE
T-MOBILE USA- NSS
35 GRIFFIN RD S
BLOOMFIELD CT 06002-1351

Expected Delivery Date: 05/16/18
Ref#: ZAPNL541PI

0024

R001

SHIP TO: BRUCE ADAMS
TOWN OF KENT- FIRST SELECTMAN
41 KENT GREEN BLVD
KENT CT 06757-1544

USPS TRACKING #

9405 8036 9930 0637 5964 71

Electronic Rate Approved #038555749

Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0637 5964 71

Trans. #:	434973945
Print Date:	05/15/2018
Ship Date:	05/15/2018
Expected Delivery Date:	05/16/2018
Insured Value:	$1.00

Priority Mail® Postage:	**$6.70**
Insurance Fee	**$0.00**
Total	**$6.70**

From: DEBORAH CHASE
T-MOBILE USA- NSS
35 GRIFFIN RD S
BLOOMFIELD CT 06002-1351

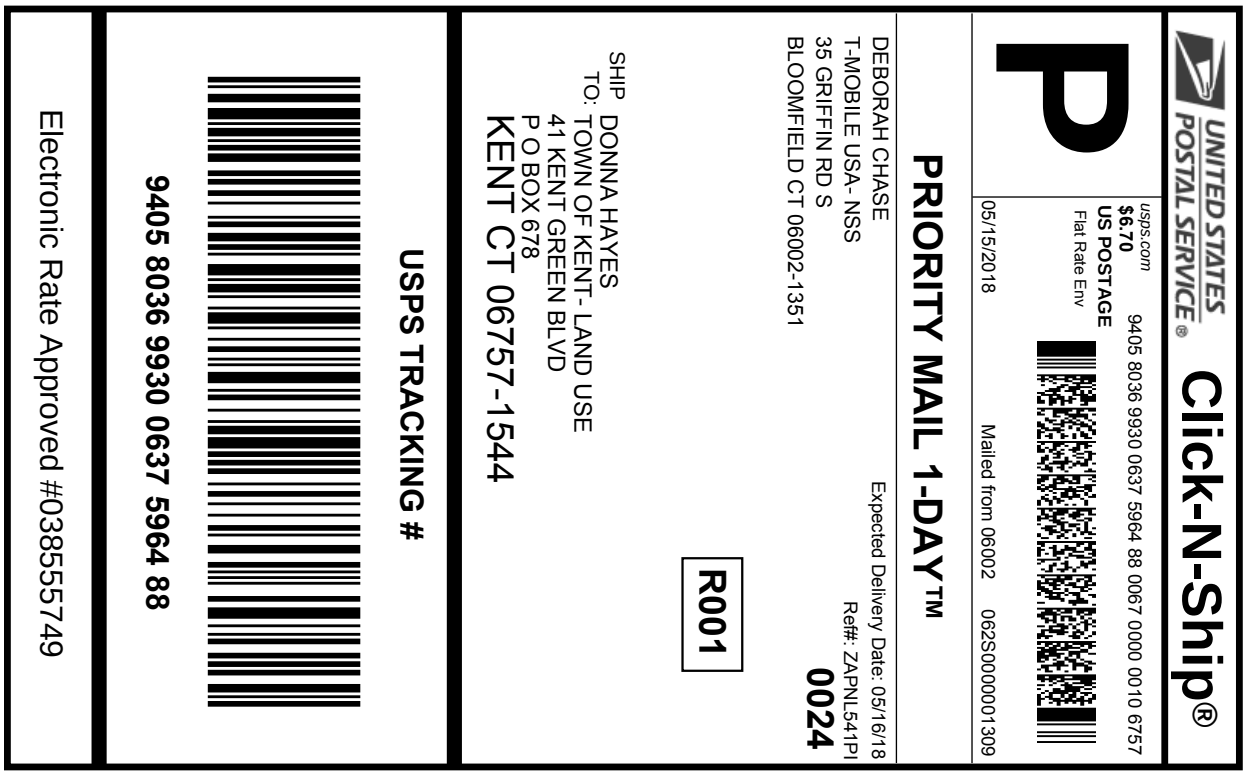
Ref#: ZAPNL541PI

To: BRUCE ADAMS
TOWN OF KENT- FIRST SELECTMAN
41 KENT GREEN BLVD
KENT CT 06757-1544

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

UNITED STATES POSTAL SERVICE®

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

Instructions

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Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0637 5964 88

Trans. #:	434973945
Print Date:	05/15/2018
Ship Date:	05/15/2018
Expected Delivery Date:	05/16/2018
Insured Value:	$1.00

Priority Mail® Postage:	**$6.70**
Insurance Fee	**$0.00**
Total	**$6.70**

From: DEBORAH CHASE
T-MOBILE USA- NSS
35 GRIFFIN RD S
BLOOMFIELD CT 06002-1351

Ref#: ZAPNL541PI

To: DONNA HAYES
TOWN OF KENT- LAND USE
41 KENT GREEN BLVD
P O BOX 678
KENT CT 06757-1544

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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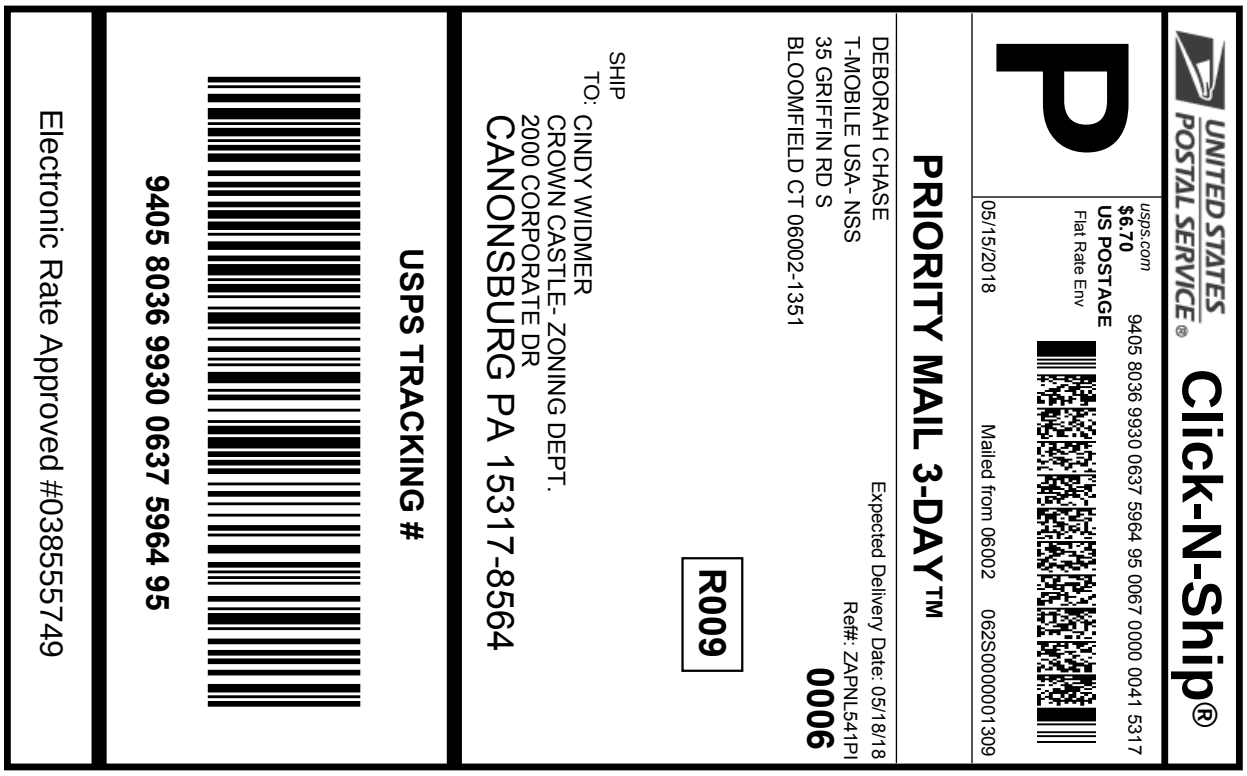

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Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0637 5964 95

Trans. #:	434973945
Print Date:	05/15/2018
Ship Date:	05/15/2018
Expected Delivery Date:	05/18/2018
Insured Value:	$1.00

Priority Mail® Postage:	**$6.70**
Insurance Fee	**$0.00**
Total	**$6.70**

From: DEBORAH CHASE
T-MOBILE USA- NSS
35 GRIFFIN RD S
BLOOMFIELD CT 06002-1351

Ref#: ZAPNL541PI

To: CINDY WIDMER
CROWN CASTLE- ZONING DEPT.
2000 CORPORATE DR
CANONSBURG PA 15317-8564

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

UNITED STATES POSTAL SERVICE®

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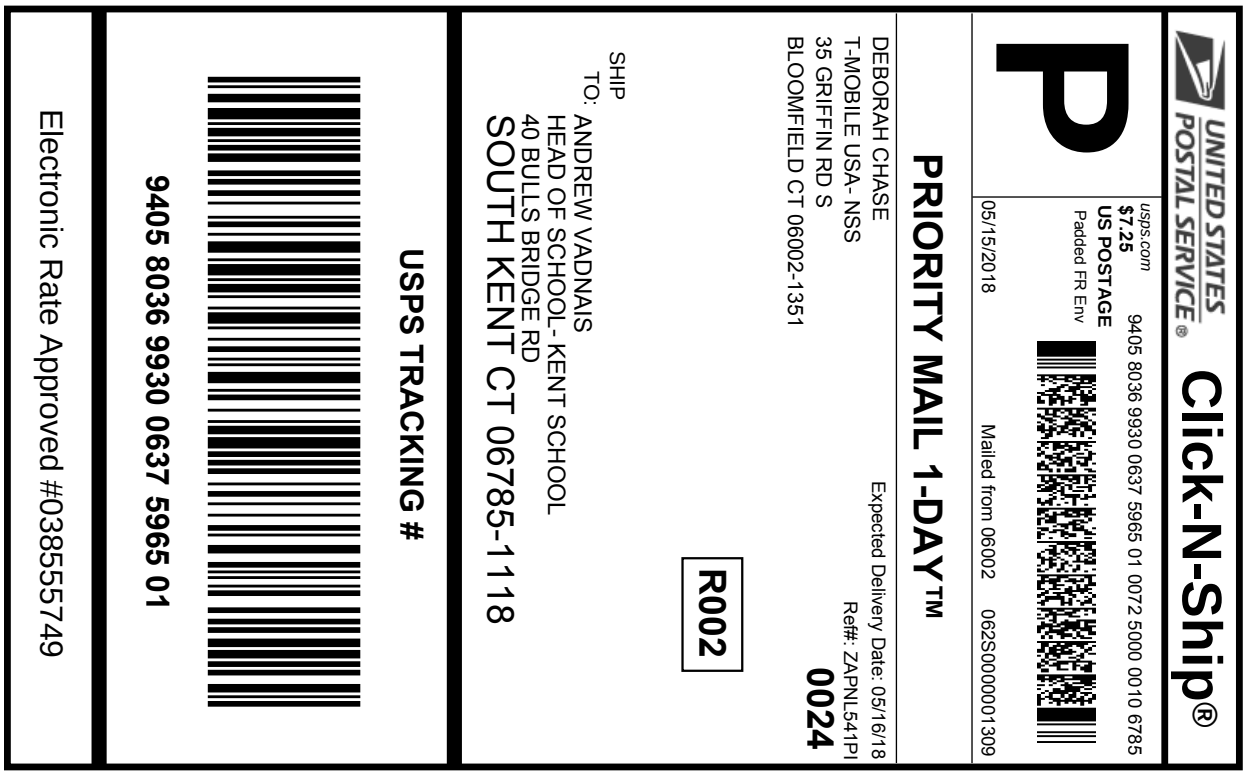

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Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0637 5965 01

Trans. #:	434973945
Print Date:	05/15/2018
Ship Date:	05/15/2018
Expected Delivery Date:	05/16/2018
Insured Value:	$1.00

Priority Mail® Postage:	**$7.25**
Insurance Fee	**$0.00**
Total	**$7.25**

From: DEBORAH CHASE
T-MOBILE USA- NSS
35 GRIFFIN RD S
BLOOMFIELD CT 06002-1351

Ref#: ZAPNL541PI

To: ANDREW VADNAIS
HEAD OF SCHOOL- KENT SCHOOL
40 BULLS BRIDGE RD
SOUTH KENT CT 06785-1118

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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