

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
APPLICATION OF HOMELAND TOWERS, : DOCKET NO. 507
LLC AND CELLCO PARTNERSHIP D/B/A :
VERIZON WIRELESS FOR A CERTIFICATE :
OF ENVIRONMENTAL COMPATIBILITY :
AND PUBLIC NEED FOR THE :
CONSTRUCTION, MAINTENANCE AND :
OPERATION OF A WIRELESS :
TELECOMMUNICATIONS FACILITY AT :
222 CLINTONVILLE ROAD, NORTH :
BRANFORD, CONNECTICUT : SEPTEMBER 28, 2022

DEVELOPMENT & MANAGEMENT (D&M) PLAN INTERROGATORIES

Question No. 1

The geotechnical report indicates the presence of shallow bedrock at the site. Would blasting be required? If yes, submit a blasting plan that includes work procedures and municipal notifications.

Response No. 1

No blasting is anticipated. Any shallow bedrock encountered at the site will be hammered out rather than blasted.

Question No. 2

The recommendations in the geotechnical report (p. 4) indicate a geo-technical engineer should be on-site to confirm the bedrock can support the proposed foundation mat. Does Homeland intend to abide by this recommendation?

Response No. 2

Yes, as a matter of practice Homeland always retains an engineering firm to oversee the foundation installation which includes subgrade, steel/re-bar, concrete and backfill inspections.

Question No. 3

What equipment would be installed on the ‘municipal concrete pad’ within the compound?

Response No. 3

The Town of North Branford will install two (2) DDB 2OD-78DDXC outdoor cabinets on its concrete equipment pad. **Exhibit A** contains the cabinet spec sheet.

Question No. 4

Site Plan CP-1 refers to a yield point at 80 feet. The tower structural design prepared by TAPP does not appear to include the yield point information. Clarify.

Response No. 4

On the tower structural design prepared by TAPP, on the TAPP pole profile, first page, below the “Equipment List” box – the pole yield point of 80 feet is referenced.

Question No. 5a

Referring to D&M Plan p. 1 and Attachment C: The tower color is shown as “Thunder Grey”. Why was this color chosen? Has Homeland used this color on other tower structures in Connecticut? If yes, provide the tower location.

Response No. 5a

Since this tower will be located in a wooded area surrounded by mature trees, Homeland chose the color “Thunder Grey” because this color blends in very well with the color of existing trees/bark. Homeland has used this color most recently at 183 Soundview Lane, New Canaan,

CT, the tree tower approved in Council Docket No. 487. **Exhibit B** contains photos of the tree pole in New Canaan.

Question No. 5b

The Council's Docket 507 Decision and Order, Condition No. 2 e) stated the tower, antenna mounting equipment and antennas shall be painted brown (consistent with the Application site plans). The D&M Plan indicates the whip antennas will be painted "Horizon Blue" and the antenna mounts painted "White Smoke". Clarify.

Response No. 5b

Since the whip antennas (14' and 24' in length) will extend above the tree line, Homeland recommends keeping their color as "Horizon Blue", which is consistent with the color listed on the spec sheet on the Application site plans. This same color was shown on the photo-simulations submitted to the SHPO. Homeland showed the whip mounts as "White Smoke" because our visual study did not show them as being painted brown. Homeland defers to the Council regarding its preference for the color of the whip antenna mounts, either Thunder Grey or White Smoke. For clarification, all of the carrier mounts and antennas will be painted "Thunder Grey" to match the pole.

Question No. 5c

Provide a color sample of "Horizon Blue".

Response No. 5c

The color sample of "Horizon Blue" is shown on the spec sheet from the Application plans and D&M plans. **Exhibit C** contains the whip antenna color of Horizon Blue along with visual simulations of this color.

In addition to the interrogatory responses provided above, Homeland would like to clarify several additional issues related to the pending D&M Plan.

First, to accommodate the shared generator needs of Verizon and the Town of North Branford, a 1000-gallon tank will be installed at the facility compound.

Second, the reference on Plan Sheet C-3 to “NYS Code” requirements is incorrect. That plan reference should identify “State of Connecticut Code” requirements and will be changed in the plan set and the final construction drawings.

Third, the D&M Plan references the intent to upgrade the proposed generator from a 50 kW unit to a 80 kW unit. The potential for the installation of a larger generator was brought to the Council’s attention by Homeland in its D&M Plan submission. Upon further review, Verizon’s network engineers determined that the combined electrical load of the Verizon installation and the Town’s equipment would exceed the 50 kW. Because this site will be supporting emergency service, including E911, fire, police and ambulance services, the generator was upgraded to 80 kW.

CERTIFICATE OF SERVICE

I hereby certify that on this 28th day of September, 2022, a copy of the foregoing was sent, via electronic mail, to the following:

Michael Downes, Town Manager
Town of North Branford
909 Foxon Road
North Branford, CT 06471



Kenneth C. Baldwin

EXHIBIT A
(Town of North Branford equipment cabinet spec sheet)



20D-78DDXC

78" H x 59" W x 42" D (168 RU) Outdoor Enclosure



General

Weight

- 446 Lbs. assembled
- 551 Lbs. shipping weight

Doors

- 4, secured by three point locking system
- Locks via customer supplied padlocks
- Sealed with .875" aluminum filled gaskets

Material

- .125" Alumiflex®
- Finish: Painted cream
- RF properties: Non-ferrous

Vents

- 30 bottom louvers per door
- 24 top louvers – in top cover, under Alumishield®
- One removable filter panel per door
- 24 fixed bug screens in top cover

Handles

- Stainless steel, padlocking

Lifting Hooks

- 8, standard

Racking Specifications

Rails

- Four sets standard (for additional rails see accessories)
- Alodine coated
- Holes tapped for 10-32 threads
- Each rail supported by three R-STRTS™
- .125" Material (Alumiflex®)

Spacing

- 19" or 23" Racking available

Useable Height

- 78"

Useable Depth

- Maximum: 38.5" Minimum: 36.75"

Inside Clearance – Less Rails

Height

- 78"

Width

- 27.625" each side

Depth

- See racking specifications – Useable depth

ratings

NEMA Class Types available

- Class 250 Type 4

Paint Tested

- 1000 Hour salt spray (textured)
- 1000 Hour immersion

Door Opening Clearance

Height

- 74"

Width

- 23.625"

Exterior Cabinet Dimensions

Main Body

- Height: 78.23"
- Width: 62.875"
- Depth: 42"

Alumishield®

- Hang down height: 1.75"
- Width: 45.75"
- Depth: 45.5"

Handles

- Protrude 1.875"

Total Space Occupied

- Height: 78.855"
- Width: 62.875"
- Depth: 45.75"

	*Section Starting & Ending Points	Vertical Height Per section	Effective Depth For Each Section
Top	74.75" – 78.23"	3.25"	38.50"
	74.57" – 74.75"	.18"	37.50"
	45.00" – 74.57"	29.57"	38.50"
Center	33.00" – 45.00"	12.00"	36.75"
	3.43" – 33.00"	29.57"	38.50"
	3.25" – 3.43"	.18"	37.50"
Bottom	0.00" – 3.25"	3.25"	38.50"

EXHIBIT B

(Photo of Homeland's tree pole with Thunder Grey paint at 183 Soundview Lane, New Canaan, CT)



EXHIBIT C

("Horizon Blue" color of Town's whip antennas)



Photo 14 - Northford Center Historic District - Old Post Road Near ACES
PROPOSED CONDITION - BROWN MONOPOLE 110FT

SARATOGA ASSOCIATES

The photograph was taken using a 35mm normal angle lens. To appear at the correct scale (change in elevation) to be viewed approximately 15 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information
 Date: February 24, 2021
 Time: 10:38 AM
 Focal Length: 30 mm
 Camera: Canon EOS 80D Mark II

Photo Location: 41° 23' 46.1154" N
 72° 47' 26.6446" W
 Distance to Tower: 650 Feet



Figure B2
 PHOTO SIMULATIONS
 Visual Resource Assessment
 North Branford (CT-021)
 Wireless Telecommunications Facility
 222 Clintonville Road
 Northford, CT 06472



Photo 05 - Clintonville Road near #250
PROPOSED CONDITION - BROWN MONOPOLE 110FT

SARATOGA ASSOCIATES

The photograph was taken using a 35mm normal angle lens. To appear at the correct scale (change in elevation) to be viewed approximately 15 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information
 Date: February 24, 2021
 Time: 11:28 AM
 Focal Length: 30 mm
 Camera: Canon EOS 80D Mark II

Photo Location: 41° 23' 40.2278" N
 72° 47' 40.0894" W
 Distance to Tower: 650 Feet



Figure B14
 PHOTO SIMULATIONS
 Visual Resource Assessment
 North Branford (CT-021)
 Wireless Telecommunications Facility
 222 Clintonville Road
 Northford, CT 06472

700/800 MHz Antenna - Omnidirectional, Low-PIM/Hi-PIP, 8.8 dBd

Models DS7C09P36U-Series Antennas

Specifications	
Design Type	True Corporate Feed
Frequency Range	764-869 MHz
Passive Intermodulation – PIM (2 x 20W sources)	-150 dBc, 3 rd Order
Bandwidth	105 MHz
Gain (average over BW)	8.8 dBd
Configuration	Single antenna
Beam Tilt (electrical downtilt)	(x) = -, 2, 3, 4, or 6 degrees
Vertical Beamwidth (E-Plane) typ.	6.2°
Impedance	50 ohms
VSWR / Return Loss	1.5:1 / 14 dB (min.)
Average Power Rating	500 W
Peak Instantaneous Power	25 kW
Polarization	Vertical
Lightning Protection	Direct Ground
Connector DS7C09P36U(x)D DS7C09P36U(x)M	7/16 DIN (F) 4.3-10 (F)
Equivalent Flat-Plate Area	2.35 sq. ft.
Lateral Windload Thrust @100mph	99 lbf.
Rated Wind Speed	175 mph (without ice) 149 mph (with ½" radial ice)
Total Length	14.2 feet
Mounting Mast Length	35 inches
Mounting Hardware (included)	DSH3V3N
Mast O.D.	2.5 inches
Radome color	Horizon Blue
Radome O.D.	3.0 inches
Weight, antenna, and hardware	68 lbs.
Shipping Weight	84 lbs.
Invertibility	Antennas are not invertible. For invertible tilt options contact dbSpectra at tech@dbspectra.com
Ordering Information DS7C09P36U(x)D – 7/16 DIN Connector DS7C09P36U(x)M – 4.3-10 Connector	<ol style="list-style-type: none"> 1. Replace (x) in model number with Beam Tilt options. 2. "-" in the beam-tilt options represents 0° down-tilt.



Features and Benefits

Tested to stringent Peak Instantaneous Power (PIP) levels of 25 KW using dbSpectra's multi-channel P25 PIP test bed. High PIP level is demanded by today's digital systems.

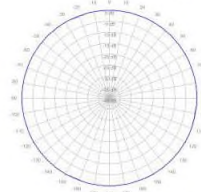
PIM-rated Design – 3rd-Order performance better than -150 dBc!

Sturdy Construction – Heavy-wall fiberglass radome minimizes tip deflection.

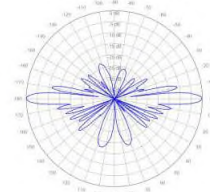
Excellent Lightning Protection – heavy internal conductor DC ground.

Radiation Patterns:

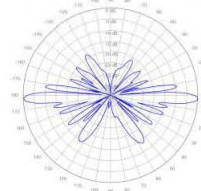
Horizontal (All)



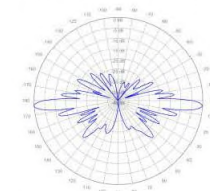
Vertical (No Tilt)



Vertical (2 deg Tilt)



Vertical (4 deg Tilt)



Vertical (6 deg Tilt)

