STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
APPLICATION OF TARPON TOWERS II, 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 380 HORACE STREET IN BRIDGEPORT, CONNECTICUT	:	DOCKET NO. 479
	:	DECEMBER 28, 2017

RESPONSES OF TARPON TOWERS II, LLC AND CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE

On December 8, 2017, the Connecticut Siting Council ("Council") issued Pre-Hearing Interrogatories to Tarpon Towers II, LLC ("Tarpon") and Cellco Partnership d/b/a Verizon Wireless ("Cellco") (collectively "the Applicant"), relating to Docket No. 479 and the subject parcel at 380 Horace Street (the "Property"). Below are the Applicant's responses.

Question No. 1

Of the letters sent to abutting property owners, how many certified mail receipts were received? If any receipts were not returned, which owners did not receive their notice? Were any additional attempts made to contact those property owners?

Response

Tarpon's counsel sent a total of twenty-six (26) notices to abutting property owners and received return receipts from eighteen (18) of those owners. Notice letters to Virginia Miller; Laserne Smith; Steve Ampofo; Moses Ogunjimi; Astrid Jean-Louis; and Eddie Ramos and Silvia Flores were returned, marked undeliverable. For these notices, ownership and mailing address

information was confirmed with the Bridgeport Assessor's office and the notice letters were resent by regular mail. Neither the green card receipt nor the original notice letter was returned for those notices sent to 416 Realty LLC or Coggswell Square Condominium (Unit #2).

Question No. 2

Could the proposed tower be designed with a yield point to ensure that the tower setback radius remains within the boundaries of the subject property?

Response

Yes.

Question No. 3

Quantify the amounts of cut and fill that would be required to develop the proposed facility.

Response

Project engineers, Hudson Design Group estimates that approximately 110 cubic yards (CY) of material would be displaced by the monopole's concrete foundation. We would expect to reuse approximately 45 CY of this material on site, if suitable for backfill, over the tower's foundation. The remainder of the material will be removed from the site. These estimates will be confirmed following Council approval and the completion of a geotechnical survey at the site.

Question No. 4

Would any blasting be required to develop the site?

Response

Tarpon does not anticipate the need for any blasting to develop this tower site. A complete geotechnical survey, however, will be completed if the facility is approved by the Council.

Question No. 5

Referencing Page 19 of Tarpon Towers II, LLC (Tarpon) and Cellco Partnership d/b/a Verizon Wireless' (Cellco) (collectively, the Applicants) Application (Application), it notes that, "[T]he proposed facility would be located in Flood Zone X, an area outside the 500 year flood zone." Specifically, is this the "unshaded" Zone X, an area located outside of both the 500-year and 100-year flood zones?

Response

Yes, the proposed facility would be located in an "unshaded" Zone X, areas outside both the 100-year and 500-year flood zone.

Question No. 6

Would the proposed tower be designed per Connecticut Building Code and EIA-TIA-222-G?

Response

Yes.

Question No. 7

What type of antenna mount will be used for the proposed antennas, e.g. low-profile platform?

Response

Cellco would utilize a triangular antenna platform on the proposed Bridgeport East tower.

Question No. 8

Would the tower have a galvanized gray steel finish?

Response

Yes.

Question No. 9

Would the proposed compound fence have an anti-climb design? Are privacy slats proposed?

Response

Tarpon has proposed a two-inch mesh chain link fence around the facility compound. Privacy slats could be installed, if deemed necessary by the Council.

Question No. 10

Would the existing paved driveway require any upgrades such as additional asphalt in order to provide access to the proposed facility?

Response

No upgrades to the existing driveway are anticipated. However, Tarpon will repair any damage to the site driveway caused during site construction.

Question No. 11

Referencing Tab 1, Sheet A-4 of the Application, would the proposed Mirafi fabric and the 3-inches of crushed stone prevent weed growth inside the fenced compound area?

Response

Yes. Tarpon expects this compound surface will prevent weed growth within the fenced compound.

Question No. 12

Why is the proposed equipment platform elevated above grade?

Response

Cellco's equipment platform on concrete piers will be elevated approximately 30 inches above finished-grade to avoid snow accumulating around its radio equipment.

Question No. 13

Would the tower and foundation be designed to accommodate an increase in tower height? If yes, by how many feet (or percent of original height) could the tower be extended per such design?

Response

Yes. Tarpon would design the tower and foundation so that it could be extended a minimum of 20 feet.

Question No. 14

The most recent No Hazard Determination letter from the Federal Aviation Administration (FAA) dated September 28, 2017 appears to be based on a structure 199 feet above ground level (agl). While the proposed facility would have a maximum height of approximately 94 feet agl per Sheet A-1, was 199 feet used in the FAA review to be conservative?

Response

Yes. The FAA determination for a tower, as tall as 199 feet above grade, is, deliberately a very conservative analysis.

Question No. 15

Per the September 28, 2017 No Hazard Determination, would the Applicants provide notice (i.e. 7460-2 Notice of Actual Construction or Alteration) to FAA within five days after construction reaches its greatest height?

Response

Yes.

Question No. 16

Would notice to the FAA be required for any temporary structures such as a crane to be used to set the tower sections in place?

Response

Notice to the FAA would not be required for any temporary construction equipment in this case as the height of such equipment would remain well below the requirements for FAA notice.

Question No. 17

Identify the safety standards and/or codes by which equipment, machinery, or technology would be used or operated at the proposed facility.

Response

- 2012 International Building Code with the 2016 CT Building Code Amendments.
- 2014 National Electric Code (NFPA70).
- 2016 CT Fire Safety Code.
- TIA-222-G-05 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".
- Occupational Safety and Health Administration (OSHA).

Question No. 18

Would Cellco's installation comply with the intent of the Warning Alert and Responses Network Act of 2006?

Response

Yes.

Question No. 19

Would the compound fence gate be locked as a security measure?

Response

Yes.

Question No. 20

Has the State of Connecticut Department of Agriculture purchased any development rights for the proposed site as part of the State Program for the Preservation of Agricultural Land?

Response

There is no indication in the title report or in the City Assessor's records that the Connecticut Department of Agriculture has acquired development rights to any portion of the Property.

Question No. 21

Is any portion of the site currently in productive agricultural use? If so, is it used by the property owner or is it leased to a third party?

Response

No.

Question No. 22

Does the proposed site contain any Connecticut Prime Farmland Soils? If so, what acreage of Connecticut Prime Farmland Soils would the facility and associated equipment be located on? As a comparison, how many acres of Connecticut Prime Farmland soils are located on the subject property?

Response

There are no Prime Farmland Soils located on the Property. Soils on the site are primarily classified as Udorthents-Urban land complex, which consist of moderately well to excessively drained earthen material. The soils at the Property have also been so disturbed by development activity (cutting, filling and grading) that the original soil profile can no longer be discerned. Significant portions of the Property are also covered by buildings and pavement.

Question No. 23

What impacts, if any, would the proposed project have on the soil productivity of the site? Would the project developer be willing to discuss and/or implement any potential restoration methods to be employed at the end of the project's useful life with the property owner?

Response

As discussed in the response to Question No. 22, soils on the site and in particular at the proposed telecommunications facility location have been subjected to anthropogenic changes to such a degree that they have very limited productivity and no longer support the ability to grow any agricultural products.

Question No. 24

Is there any environmental contamination on the proposed site from any previous agricultural use (ex. Soil and/or water contamination)? If so, how would the Applicants remediate the pre-existing soil and/or water contamination?

Response

Tarpon is not aware of any existing environmental contamination at the Property caused by previous agricultural use.

Question No. 25

Is the site parcel part of the Public Act 490 Program? If so, how does the town land use code classify the parcel? For example, is the parcel classified as "Tillable D – good to fair"?

Response

There is no indication in the title report or the Town's Assessor records that the Property is a part of the Public Act 490 Program.

Question No. 26

Provide Cellco's antenna centerline heights at the five existing wireless telecommunications facilities identified on page 9 of the Application that Cellco's proposed facility would interact with.

Response

Site Name	Address	Cellco Antenna Height (AGL)
Bridgeport	2012 Main Street, Bridgeport, CT	74'
North Bridgeport 2	120 Huntington Turnpike, Bridgeport, CT	108'
Stratford West	23 Stonybrook Road, Stratford, CT	77'
East Bridgeport Relo	267 Grant Street, Bridgeport, CT	144'
Bridgeport Washington Park	480 Barnum Avenue, Bridgeport, CT	95'

Question No. 27

Referencing Tab 8 of the Application, when was the search ring first established for this area? What was the approximate radius of Cellco's search ring for this area? Provide the approximate longitude and latitude coordinates of the center of the search ring for this area. Provide an updated site search summary map with the search ring.

Response

The Bridgeport East search ring was established first on June 4, 2013, and had a radius of approximately 0.8 miles. The search ring is centered on the Property at 380 Horace Street. A search ring map is included in Attachment 1. Tarpon received notice that Cellco was interested in a site at this location in May of 2014. This was prior to a lease being signed by the landlord. Tarpon finalized its tower lease in June 2014.

Question No. 28

Would the proposed site be needed for coverage, capacity, or both? Explain.

Response

The Bridgeport East facility will provide both coverage benefits by filling small service gaps in the area and, more importantly, capacity relief to Cellco's existing East Bridgeport Relo (Alpha and Gamma sectors), Bridgeport Washington Park (Alpha sector) and North Bridgeport 2 (Gamma sector) which are operating near or beyond their existing capacity limits.

Question No. 29

Are all frequencies used to transmit voice and data?

Response

Yes.

Question No. 30

Does Cellco seek to deploy all four frequency bands (e.g. 700 MHz, 850 MHz, 1900 MHz and 2100 MHz) at the proposed facility? If yes, would all of those frequency bands be deployed initially, or would some of these frequency bands be deployed first and others in the future? Explain.

Response

Initially, Cellco will deploy its 700 MHz, 1900 MHz and 2100 MHz frequency bands to provide the immediate coverage and capacity relief needed in the area. The 850 MHz frequency band will be reserved for future deployment should there be a need for additional capacity off-loading.

Question No. 31

Is 90 feet the lowest centerline height at which Cellco's antennas could achieve its wireless service objectives for the proposed site?

Response

Yes.

Question No. 32

Could the required coverage and capacity upgrade needs be met by a series of small cell facilities or a distributed antenna system rather than the proposed macro tower facility?

Response

It may be theoretically and technically possible to install a large number of small cell facilities in the area that could match or closely match the service area of the proposed Bridgeport East Facility. Such an approach, however, is not economically feasible and is not consistent with good RF Engineering practice. Typically, small cell facilities utilize existing infrastructure (i.e. electric distribution poles) along public rights of way in areas where coverage and/or capacity problems exist. In areas where this existing infrastructure does not exist, for example, along private roads or on private and municipal property, property rights would need to be obtained and new poles would need to be installed.

The actual number of small cell facilities that would be needed to provide a service comparable to that from the proposed Bridgeport East Facility is not known but would be significant given the overall size of the area that Cellco is attempting to serve and the location of the cell sites in need of capacity relief.

Question No. 33

What is the signal strength for which Cellco designs its system? For in-vehicle coverage? For in-building coverage?

Response

Cellco's minimum design threshold for CDMA service is -85 dBm Receive Signal Strength Indicator (RSSI) for in-vehicle service and -75 dBm RSSI for in-building service. For LTE service, Cellco's minimum design threshold is -105 dBm Reference Signal Received Power (RSRP) for highway in-vehicle/rural in-building; -95 dBm RSRP for suburban residential in-building and; -85 dBm RSRP for urban/commercial in-building.

Question No. 34

What is the existing signal strength within the area Cellco is seeking to cover from this site?

Response

Existing signal strength in the area Cellco seeks to cover from the Bridgeport East Facility is -95 dBm RSRP.

Question No. 35

Will the proposed facility support text-to-911 service? Is additional equipment required for this purpose?

Response

Yes. The proposed Bridgeport East Facility will support text-to-911 as soon as the Public Safety Answering Point (PSAP) is capable of receiving text-to-911. No additional cell site equipment is necessary to support this service. Cellco is not aware of any Public Safety Answering Points in the area of the proposed Bridgeport East Facility that are about to accept text-to-911 at this time.

Question No. 36

Would Cellco's facility comply with federal E911 requirements?

Response

Yes.

Question No. 37

Does Cellco have any statistics on dropped calls and/or ineffective attempts in the vicinity of the proposed facility? If so, what do they indicate? Does Cellco have any other indicators of substandard service in this area?

Response

As discussed in the Docket No. 479 application, the Bridgeport East Facility will resolve small gaps in wireless "coverage", including poor indoor signal reception in the area surrounding the Bridgeport East Facility. More importantly, the Bridgeport East Facility will provide capacity relief to those antenna sectors of Cellco's adjacent East Bridgeport Relo (Alpha and Gamma sectors), Bridgeport Washington Park (Alpha sector), and North Bridgeport 2 (Gamma sector) cell sites that are directed toward the Bridgeport East Facility.

Cellco uses its 700 MHz frequency service primarily as a coverage layer due to propagation benefits and user equipment capabilities of a vast majority of its subscribers.

Cellco's 2100 MHz frequency serves as a capacity layer. At the higher frequency, the 2100 MHz service also provides better user experience for customers in terms of downlink (DL) throughput speeds.

Cellco primarily focuses on resolving network service issues such as dropped calls, ineffective attempts and poor data speeds. Each of these issues are directly related to either coverage problems in an area or lack of adequate network capacity, or both. The data presented below summarizes each adjacent sector's average one week voice and data performance, the projected sector exhaust date and the estimated percentage of user traffic that will be offloaded by the proposed Bridgeport East Facility once it is operational.

Table 1 - LTE Voice Performance

Facility Name	**Sector**	**LTE Voice Connection**	
		Ineffective Attempts %	**Dropped Calls %**
Bridgeport	Alpha	0.15	0.45
Bridgeport Washington Park	Alpha	0.17	0.41
East Bridgeport Relo	Alpha	0.15	0.34
East Bridgeport Relo	Gamma	0.14	0.5
North Bridgeport 2	Beta	0.3	0.44
North Bridgeport 2	Gamma	0.21	0.4
Stratford West	Gamma	0.13	0.39

Table 2 - CDMA Voice Performance

Facility Name	Sector	Ineffective Attempts %	Dropped Calls %
Bridgeport	Alpha	Inactive	Inactive
Bridgeport Washington Park	Alpha	Inactive	Inactive
East Bridgeport Relo	Alpha	0.14	0.15
East Bridgeport Relo	Gamma	0.27	0.24
North Bridgeport 2	Beta	0.29	0.27
North Bridgeport 2	Gamma	0.22	0.40
Stratford West	Gamma	CDMA Inactive	Inactive

Cellco's system performance standard is 0.75% or better for dropped calls (DC) and ineffective attempts (IA). All of the sites surrounding the Bridgeport East Facility are currently meeting Cellco's DC and IA standard.

Table 3 - LTE Data Performance

Facility Name	Sector	LTE Data Connection	
		Ineffective Attempts %	DL Throughput Speeds (Mbps)
Bridgeport CT	Alpha	0.84	4.95
Bridgeport Washington Park	Alpha	0.12	7.92
East Bridgeport Relo	Alpha	0.13	5.36
East Bridgeport Relo	Gamma	0.47	4.88
North Bridgeport 2	Beta	0.24	8.03
North Bridgeport 2	Gamma	0.05	10.82

Facility Name	Sector	LTE Data Connection	
		Ineffective Attempts %	DL Throughput Speeds (Mbps)
Stratford West	Gamma	0.05	8.72

Cellco's system performance standard for network data speeds is 5 Mbps or better. For LTE data (Table 3), only four of the seven surrounding antennas sectors are meeting Cellco's data speed standards.

Table 4 - Projected Exhaust Dates and Offload Percentage

Site Name	Sector	Projected Exhaust Date	Offload %
Bridgeport	Alpha	FEB 2018	16.1
Bridgeport Washington Park	Alpha	APR 2019	25.4
East Bridgeport Relo	Alpha	Currently in Exhaust	9.7
East Bridgeport Relo	Gamma	Currently in Exhaust	34
North Bridgeport 2	Beta	End of Year (EOY) 2020	14.9
North Bridgeport 2	Gamma	EOY 2018	38.5
Stratford West	Gamma	EOY 2020	12.6

Once the proposed Bridgeport East Facility is activated, the effective service area for 700 MHz frequency would be approximately 9.18 square miles. This 9.18 square mile effective service area will allow Cellco to further optimize its surrounding facilities and significantly enhance wireless service in the area. For example, the existing East Bridgeport Relo (Gamma Sector) antennas are currently "overreaching" to the north due to the lack of sufficient service coming from the other adjacent facilities including North Bridgeport 2 and Stratford West. Once

the Bridgeport East Facility is built and activated, Cellco will be able to pull the coverage from the East Bridgeport Relo (Alpha and Gamma sector) antennas back (to the south) which would reduce its overlapping coverage with the proposed Bridgeport East Facility. By doing this, the Bridgeport East Facility can more effectively handle the wireless traffic proximate to its location. This will also provide some capacity benefit for the Bridgeport and Bridgeport Washington Park cell sites, improve overall network performance and reduce the potential for interference between these two adjacent cell sites.

Question No. 38

On page 8 of the Application, Cellco provided the proposed coverage distances for Route 1 and Route 127 for 700 MHz, 1900 MHz and 2100 MHz. Would the proposed facility provide any coverage to Route 1 and Route 127 for 850 MHz? If yes, provide the proposed coverage distances for 850 MHz on these two roads and the proposed coverage area for 850 MHz (in square miles).

Response

The overall coverage area at 850 MHz would be 5.79 square miles; 0.46 miles of coverage along Route 1 and 0.58 miles of coverage along Route 127.

Question No. 39

Provide the individual existing coverage gaps for Route 1 and Route 127 based on each of the four frequency bands (i.e. 700 MHz, 850 MHz, 1900 MHz, and 2100 MHz) or as applicable.

Response

Coverage Gaps by Frequency (Miles)				
	700 MHz	850 MHz	1900 MHz	2100 MHz
Route 1	0.4	0.2	0.2	0.15
Route 127	0.15	0.25	0.51	0.3

Question No. 40

What are the existing coverage footprints in the vicinity of the proposed site (in square miles) at each frequency used by Cellco that would be initially installed?

Response

As discussed on page 8 of the Application, the overall coverage footprint by frequency from the proposed Bridgeport East Facility would be:

700 MHz – 9.18 square miles

1900 MHz – 6.26 square miles

2100 MHz – 7.18 square miles

Question No. 41

Under Tab 8 of the Application, page 2, Cellco notes that capacity relief would be provided to the following existing cell sites: East Bridgeport Relo (Alpha and Gamma sectors); Bridgeport Washington Park (Alpha sector); and North Bridgeport 2 (Gamma sector). Provide the projected exhaustion dates for each of these identified sectors. Would the deployment of the proposed Bridgeport East Facility be sufficient to address all of these capacity concerns, or would an additional facility be required in the near term to off-load traffic?

Response

Projected Exhaust dates are provided for each of the surrounding cell sites in Table 4 in Response No. 37 above. Cellco expects that the Bridgeport East Facility described in the Docket No. 479 application will effectively provide the capacity relief sought. Following the activation of the Bridgeport East Facility, Cellco will monitor and evaluate network performance in the area to determine if additional facilities may be needed in the future.

Question No. 42

What is the specific purpose of the 700 MHz and 2100 MHz systems? For example, are certain frequency bands used for data versus voice?

Response

Both the 700 MHz and 2100 MHz frequencies can and will be used to provide voice and data services.

Question No. 43

Since the filing of the Application on September 25, 2017, have any other wireless carriers expressed an interest in co-locating on the proposed facility to date? Has the host municipality expressed an interest in co-locating emergency services antennas? Would Tarpon provide space for municipal emergency services antennas, if requested?

Response

Tarpon has reached out to all of the carriers regarding their interest in co-locating on the Bridgeport East tower. To date, no other carrier has expressed any interest in this site. During the initial municipal consultation meeting, the Applicant offered the City space on the tower for emergency service communications, at no charge, if a need exists. The City has not yet responded to that offer.

Question No. 44

Would the backup generator have containment measures to protect against oil or coolant leakage?

Response

Yes. Cellco proposes to install a Generac 25 KW natural gas back-up generator which has, as a part of the generator unit, the ability to contain 110% of the capacity of the motor oil and cooling system fluids.

Question No. 45

Barring a mechanical breakdown, required maintenance shut-down, natural gas service interruption, or DEEP restrictions on annual runtime hours, in the event of a commercial power outage, would the natural gas-fueled generator have essentially an unlimited run time because the fuel is pipeline supplied?

Response

Yes.

Question No. 46

Did Tarpon consider installing a generator sized to be shared by tower tenants? Explain.

Response

Tarpon did not consider the installation of a shared generator at this location. Cellco, the only carrier interested in the tower, plans to provide its own back-up generator.

Question No. 47

Would Cellco consider using a shared generator if one were provided? Explain.

Response

Yes. However, Cellco prefers to provide reliable back-up power to its own cell sites.

Question No. 48

Would a battery backup (if applicable) be used to provide uninterrupted power and prevent a reboot condition? For approximately how many hours could the battery backup alone provide service in the event that the backup generator fails to start?

Response

Yes. Depending upon load, the battery back-up system that Cellco intends to install could maintain site operations for 6 to 8 hours.

Question No. 49

Would the backup generator run periodically for maintenance purposes? If so, at what frequency and duration? Would this be scheduled for daytime hours?

Response

Yes. The generator will cycle, for maintenance purposes, once every other week for approximately twenty (20) minutes, and only during daytime hours.

Question No. 50

Would the natural gas line to supply the generator run underground generally following the access drive, subject to the final determination by the natural gas utility? Explain.

Response

Yes. The natural gas line that is being proposed would follow the access drive. Details will be confirmed with the gas company at a future date.

Question No. 51

Identify the nearest "Important Bird Area" (IBA) as designated by the National Audubon Society, and provide the distance and direction from the proposed facility. Would the proposed facility adversely impact such IBA?

Response

The nearest IBA to the Bridgeport East Facility is the Milford Point/Wheeler Marsh located approximately three (3) miles to the southeast in Milford, Connecticut, near the mouth of the Housatonic River. Due to the significant distance separating the Bridgeport East Facility from this IBA, no adverse impact to this resource or the bird species it supports is anticipated. Additional discussion on this topic can be found in All-Point Technology Corp, P.C.'s (APT) Avian Resource Evaluation report dated December 12, 2017, and included in Attachment 2.

Question No. 52

Would Cellco's proposed facility comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species?

Response

Yes. In August 2016, the USFWS prepared its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*. These suggested best practices were developed to assist tower companies in developing their communication systems in a way which minimizes the risk to migratory birds and threatened and endangered species. The proposed Bridgeport East Facility would comply with the USFWS' recommended guidelines for reducing impacts to migratory birds as follows. The proposed facility would consist of a 90-foot monopole which requires neither guy wires nor lighting and is therefore consistent with USFWS' suggested tower design criteria: tower height is less than 200 feet above ground level (90 feet is proposed); no guy wires; no tower lighting and on-ground security lighting will be down-shielded and motion-sensored. In addition, placement of the facility avoids wetlands, known bird concentration areas (closest IBA is ±3 miles away),

rare species habitat (June 27, 2017 DEEP Natural Diversity Data Base letter did not reveal any rare species in proximity to the proposed facility) and ridgelines, thereby minimizing environmental impacts that could affect migratory birds. Please refer to the Avian Resource Evaluation report provided in Attachment 2 for additional information.

Question No. 53

What, if any, stealth tower design options would be feasible to employ at this site?

Response

Given the relatively low tower height needed, from an aesthetic standpoint a flagpole design is one option that was considered. A flagpole would minimize the visual width at the top of the tower (by eliminating the antenna array), however, the diameter of the monopole would need to be enlarged, essentially doubling the width of the pole's current design. In addition, the use of a flagpole design would require Cellco (and other wireless carriers sharing the facility) to occupy multiple antenna levels of the tower, ultimately restricting the number of collocation opportunities at the proposed height or requiring an overall tower height taller than 90 feet to meet the carrier's specific service objectives. Cellco's antennas could also be arranged in a tighter (cluster-mounted) configuration to the monopole. This approach, however, limits potential future upgrades (adding antennas and equipment) to the wireless facility. Painting the proposed monopole and antennas could provide some softening of views but has its own limitations.

Question No. 54

Would flush-mounted antennas provide the required coverage? Would the flush-mount configuration result in reduced coverage and/or necessitate greater antenna height with multiple levels of antennas? Explain.

Response

Flush-mounted antennas utilizing one antenna per sector attached directly to the outside of the tower mast could provide the coverage and capacity needed to the area around the Bridgeport East cell site. This approach, however, is not consistent with good RF Engineering practice. If Cellco were required to utilize flush–mounted antennas, it would need to use two (2) or possibly three (3) mounting levels of antennas on the tower, thereby limiting the amount of available space on the tower for other wireless carriers or emergency service providers. The use of flush-mounted antennas could also limit Cellco's ability to install new technologies and make other cell site enhancements in the future.

Question No. 55

What is the expected cumulative noise level at the nearest property line from the proposed facility assuming the generator and other (e.g. radio) equipment are running at the same time? Would the proposed project comply with DEEP Noise Control Standards at the property boundaries?

Response

As confirmed in the Noise Evaluation Report included in Attachment 3, the proposed Bridgeport East Facility will comply with all applicable noise control standards and regulations at the Property boundaries.

Question No. 56

Is the proposed site within a Coastal Boundary? Provide a map. If yes, would the proposed project adversely impact the Coastal Boundary? Explain.

Response

No. The Property is located outside the Coastal Boundary, which is located

approximately 0.4 miles to the southwest. Please refer to the Coastal Boundary Map included in Attachment 4.

Question No. 57

Under Tab 10 of the Application, a letter from the U.S. Fish and Wildlife Service (USFWS) was provided regarding the northern long-eared bat. Are there any other known federally-listed species that occur at the proposed site?

Response

One additional federally-listed species, red knot (*Calidris canutus rufa*), was identified in the vicinity of the site during a review of the USFWS Information, Planning, and Conservation System (IPaC). Red knot utilizes coastal habitats consisting of coastal marine and estuarine habitats, including barrier beaches, with feeding occurring in the intertidal zone during migration and wintering (when red knot would be expected to be in Connecticut). No such habitat exists on the Property or on adjacent properties; the nearest potentially suitable red knot habitat is located approximately three (3) miles to the southeast. Therefore, due to the lack of red knot habitat on or proximate to the Property and the significant distance separating the proposed facility from potentially suitable red knot habitat, no further coordination with USFWS was required. Please refer to APT's Section 7 Consultation submission to USFWS, dated November 9, 2015, revised December 28, 2015, which resulted in issuance of the USFWS letter (noted under Tab 10 of the Application) for further details. (*See* Attachment 5).

Question No. 58

Is the proposed facility within a Department of Energy and Environmental Protection-designated Aquifer Protection Area (APA)? If yes, would the proposed project adversely impact such APA?

Response

No. The nearest APA is located approximately 8.5 miles to the northeast in the towns of Shelton and Derby. Please refer to the enclosed Aquifer Protection Area Map provided in Attachment 6.

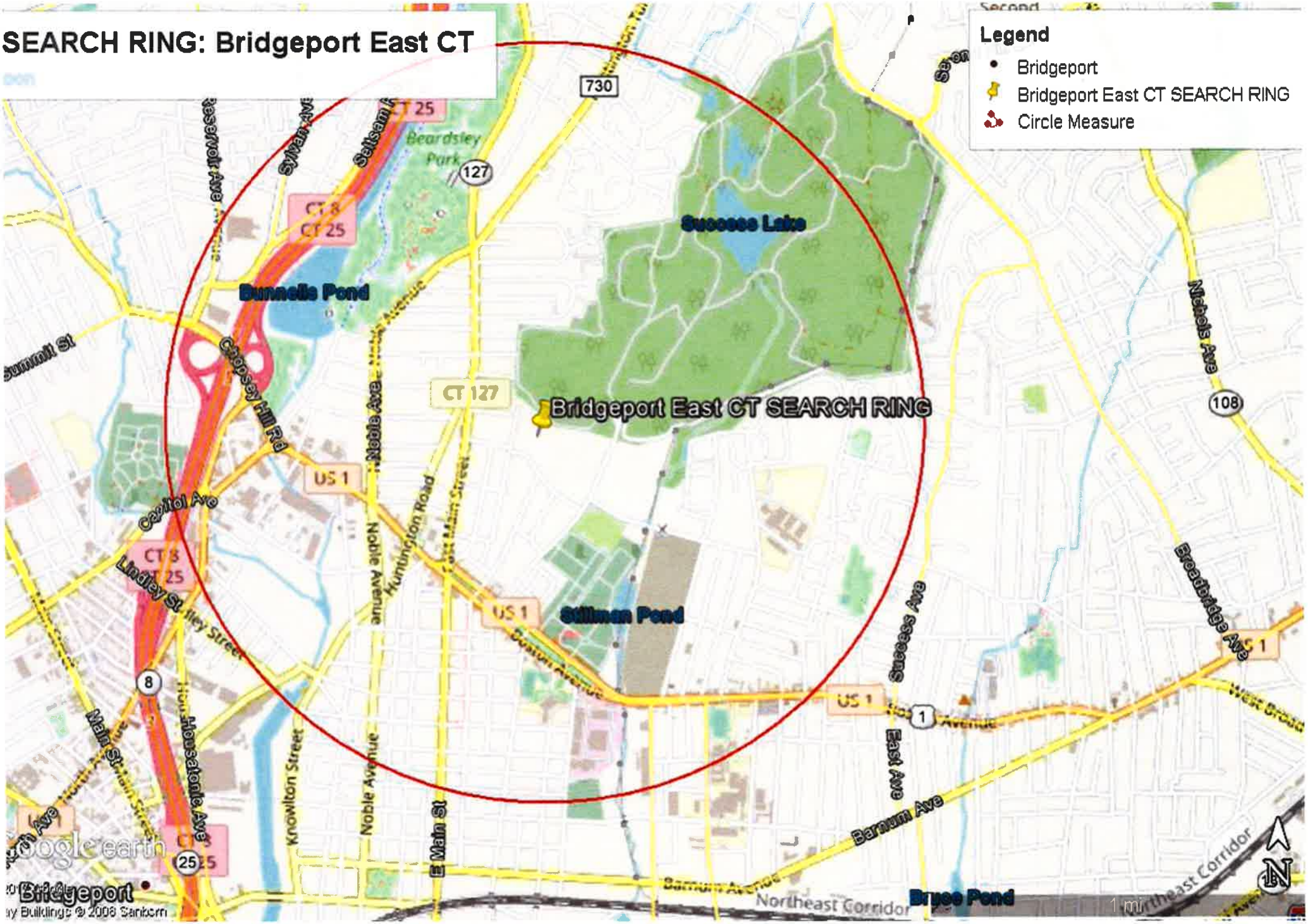
Question No. 59

Referencing the November 24, 2015 letter from the State Historic Preservation Office under Tab 13 of the Application, in accordance with Condition No. 1, has the Applicant sought to minimize the visibility of the tower, antennas and associated equipment?

Response

That condition in the SHPO approval letter represents standard language routinely used in these reviews. The proposed tower's height (which at 90 feet above grade is considered relatively low for this type of facility) minimizes its overall visibility, which is restricted to an area within approximately 0.25 miles or less of the site. The urban nature of the area around the proposed wireless facility, which is characterized by industrial uses, multi-story structures and existing utility infrastructure, combined with the proposed facility's low height help Cellco meet the SHPO's condition. With the exception of the upper portions of the monopole, the remainder of the facility is not visible from most off-site locations.

ATTACHMENT 1


SEARCH RING: Bridgeport East CT
Legend
Bridgeport
Bridgeport East CT SEARCH RING
Circle Measure
Success Lake
Bunnells Pond
Stillman Pond
Bruce Pond
Bridgeport East CT SEARCH RING
Beardsley Park
730
127
108
CT 25
CT 8
CT 127
US 1
Capitol Ave
Lindley St
Noble Avenue
Huntington Road
Success Ave
East Ave
Barnum Ave
Northeast Corridor
Bridgeport
1 mi

ATTACHMENT 2

ALL-POINTS TECHNOLOGY CORPORATION

AVIAN RESOURCES EVALUATION

December 12, 2017

Tarpon Towers II, LLC
1001 3rd Avenue West, Suite 420
Bradenton, FL 34205

APT Project No.: CT407210

Re: Proposed Telecommunications Facility
380 Horace Street
Bridgeport, Connecticut

Tarpon Towers II, LLC proposes to construct a new wireless telecommunications Facility at 380 Horace Street in Bridgeport, Connecticut (the "host Property"). The host Property consists of an approximately 13.67-acre industrially developed parcel. The area proposed for the Facility is located in the northwest portion of the host Property just beyond a paved parking lot, in an area that is currently covered in mulch. Based on Site Plans prepared by Advanced Engineering Group, P.C. (dated 5/12/17), Tarpon Towers II, LLC proposes to install a 90-foot tall monopole tower and ground equipment enclosure within a 50-foot by 50-foot gravel compound area surrounded with an 8-foot tall chain link fence ("Facility"). Top-mounted antennas would extend to a height of approximately 94 feet above ground level. A proposed 20-foot wide access and utility easement would follow an existing paved drive off of Horace Street and continue through the existing parking lot in order to gain access and provide electric and telco services to the proposed Facility site.

The purpose of this evaluation is to document the proposed Facility's proximity to avian resource areas and its compliance with recommended guidelines of the United States Fish and Wildlife Service ("USFWS") for minimizing the potential for telecommunications towers to impact bird species.

All-Points Technology Corporation, P.C. ("APT") reviewed several publicly-available sources of avian data for the state of Connecticut to provide the following information with respect to potential impacts on migratory birds associated with the proposed development. This desktop analysis and attached graphics identify avian resources and their proximities to the host Property. Information within an approximate 3-mile radius of the host Property is graphically depicted on the attached Avian Resources Map. Some of the avian data referenced herein are not located in proximity to the host Property and are therefore not visible on the referenced map due to its scale. However, in those cases the distances separating the host Property from the resources are identified in the discussions below.

Proximity to Important Bird Areas

The National Audubon Society has identified 27 Important Bird Areas ("IBAs") in the state of Connecticut. IBAs are sites that provide essential habitat for breeding, wintering, and/or migrating birds. To achieve this designation, an IBA must support species of conservation concern, restricted-range species, species vulnerable due to concentration in one general habitat type or biome, or species vulnerable due to their occurrence at high densities as a result of their congregatory behavior[1]. The closest IBA to the host Property is Milford Point/Wheeler Marsh in Milford located approximately three (3) miles to the southeast. The Wheeler Marsh Wildlife Management Area is a ±615-acre *Spartina alterniflora*-dominated low marsh at the mouth of the Housatonic River. The marsh, sandbars, and barrier beach are some of the most important shorebird migratory stopover areas on Long Island Sound, providing foraging areas and resting areas for tens of thousands of shorebirds each year, including nesting habitat for several species of regional and national concern. Numbers of some species of migrating shorebirds (especially Semipalmated and Black-bellied Plovers) may elevate this area to the level of national or continental significance.

Due to its distance from the host Property, this IBA would not experience an adverse impact resulting from the proposed development of the Facility.

Supporting Migratory Bird Data

Beyond Audubon's IBAs, the following analysis and attached graphics also identify several additional avian resources and their proximities to the host Property. Although these data sources may not represent habitat indicative of important bird areas, they may indicate possible bird concentrations[2] or migratory pathways.

Critical Habitat

Connecticut Critical Habitats depict the classification and distribution of 25 rare and specialized wildlife habitats in the state. It represents a compilation of ecological information collected over many years by state agencies, conservation organizations and individuals. Critical habitats range in size from areas less than one acre to areas that are tens of acres in extent. The Connecticut Critical Habitats information can serve to highlight ecologically significant areas and to target areas of species diversity for land conservation and protection but may not necessarily be indicative of habitat for bird species. The nearest Critical Habitat to the proposed Facility is an estuarine intertidal marsh associated with Shelby Pond located approximately 2.9 miles to the southeast. Based on the distance separating this resource from the proposed Facility site, no adverse impacts are anticipated.

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[1] http://web4.audubon.org/bird/iba/iba_intro.html

[2] "bird concentrations" is related to the USFWS *Revised Voluntary Guidelines for communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning* (September 27, 2013) analysis provided at the end of this document

Avian Survey Routes and Points

Breeding Bird Survey Route

The North American Breeding Bird Survey is a cooperative effort between various agencies and volunteer groups to monitor the status and trends of North American bird populations. Routes are randomly located to sample habitats that are representative of an entire region and do not necessarily represent concentrations of avifauna or identification of critical avian habitats. Each year during the height of the avian breeding season (June for most of the United States) participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is approximately 24.5 miles long and contains 50 stops located at 0.5-mile intervals. At each stop, a three-minute count is conducted. During each count, every bird seen or heard within a 0.25-mile radius is recorded. The resulting data is used by conservation managers, scientists, and the general public to estimate population trends and relative abundances and to assess bird conservation priorities. The nearest survey route to the host Property is the Long Hill Breeding Bird Survey Route (Route #18013) located approximately 4.9 miles to the northwest. This ±25-mile long bird survey route begins on the Easton/Trumbull town line and generally winds its way north through Monroe, Newtown, and Southbury before terminating in Roxbury. Since bird survey routes represent randomly selected data collection areas, they do not necessarily represent a potential restriction to development projects, including the proposed Facility.

Hawk Watch Site

The Hawk Migration Association of North America ("HMANA") is a membership-based organization committed to the conservation of raptors through the scientific study, enjoyment and appreciation of raptor migration. HMANA collects hawk count data from almost 200 affiliated raptor monitoring sites throughout the United States, Canada and Mexico, identified as "Hawk Watch Sites." In Connecticut, Hawk Watch Sites are typically situated on prominent hills and mountains that tend to concentrate migrating raptors. The nearest Hawk Watch Site, Boothe Memorial Park, is located in Stratford, approximately 4.0 miles to the northeast of the proposed Facility.

Most hawks migrate during the day (diurnal) to take advantage of two theorized benefits: (1) diurnal migration allows for the use of updrafts or rising columns of air called thermals to gain lift without flapping thereby reducing energy loss; and, (2) day migrants can search for prey and forage as they migrate. Therefore, no adverse impacts to migrating hawks are anticipated with development of the Facility, based on the ±4.0-mile separation distance to the nearest Hawk Watch Site and hawk migration behavior occurring during the daytime under favorable weather conditions when thermals form.

Bald Eagle Survey Route

Bald Eagle Survey Routes consist of locations of midwinter Bald Eagle counts from 1986 to 2005 with an update provided in 2008. This survey was initiated in 1979 by the National Wildlife Federation. This database includes information on statewide, regional and national trends. Survey routes are included in the database only if they were surveyed consistently in at least four years and where at least four eagles were counted in a single year. The nearest Bald Eagle Survey Route is along Route 133 South to Stevenson Dam, located in the towns of Stratford and Milford near the Housatonic River, approximately 3.4 miles east of the host Property.

Bald eagle migration patterns are complex, dependent on age of the individual, climate (particularly during the winter) and availability of food.[3] Adult birds typically migrate alone and generally as needed when food becomes unavailable, although concentrations of migrants can occur at communal feeding and roost sites. Migration typically occurs during the middle of day (10:30–17:00) as thermals provide for opportunities to soar up with limited energetic expense; Bald Eagle migration altitudes are estimated to average 1,500–3,050 m by ground observers. [4] Four adults tracked by fixed-wing aircraft in Montana averaged 98 km/d during spring migration and migrated at 200–600 m above ground (McClelland et al. 1996).[5]

In addition, the USFWS's *National Bald Eagle Management Guidelines* (May 2007) recommends a 660-foot buffer to bald eagle nests if the activity will be visible from the nest with an additional management practice recommendation of retaining mature trees and old growth stands, particularly within 0.5 mile from water. No known bald eagle nests occur in the vicinity of the host Property.

Therefore, no adverse impacts to migrating Bald Eagle are anticipated with development of the Facility. This conclusion is based on the short (90-foot) height of the Facility, eagle migration patterns during the daytime under favorable weather conditions when thermals form and compliance with USFWS bald eagle management guidelines.

Flyways

The host Property is located in Fairfield County, approximately 3.0 miles south of Long Island Sound. The Connecticut coast lies within the Atlantic Flyway, one of four generally recognized regional primary migratory bird flyways (Mississippi, Central and Pacific being the others). This regional flyway is used by migratory birds travelling to and from summering and wintering grounds. The Atlantic Flyway is particularly important for many species of migratory waterfowl and shorebirds, and Connecticut's coast serves as vital stopover habitat. Migratory land birds also stop along coastal habitats before making their way inland. Smaller inland migratory flyways ("secondary flyways) are often concentrated along major

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[3] Buehler, David A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/506 [Accessed 09/09/13].

[4] Harmata, A. R. 1984. Bald Eagles of the San Luis valley, Colorado: their winter ecology and spring migration. Ph.D. Thesis. Montana State Univ. Bozeman.

[5] Mcclelland, B. R., P. T. McClelland, R. E. Yates, E. L. Caton, and M. E. McFadden. 1996. Fledging and migration of juvenile Bald Eagles from Glacier National Park, Montana. J. Raptor Res. 30:79-89.

riparian areas as birds use these valuable stopover habitats to rest and refuel as they make their way further inland to their preferred breeding habitats. The Connecticut Migratory Bird Stopover Habitat Project (Stokowski, 2002)[6] identified potential flyways along the Housatonic, Naugatuck, Thames, and Connecticut Rivers. This study paralleled a similar earlier study conducted by the Silvio O. Conte National Fish & Wildlife Refuge (Neotropical Migrant Bird Stopover Habitat Survey[7]), which consisted of collection of migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabesset, Salmon, and Eight Mile Rivers. Of these potential flyways, the nearest to the host Property is the Housatonic River, located approximately 3.2 miles to the northeast. The Pequonnock River riparian corridor, located 0.5 miles west of the host Property Pequonnock River, is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from the Housatonic River corridor during the spring migration. These major riparian corridors may provide secondary flyways as they likely offer more food and protection than more exposed upland sites, particularly during the spring migration[8].

Siting of tower structures within flyways can be a concern, particularly for tall towers and even more particularly for tall towers with guy wires and lighting. The majority of studies on bird mortality due to towers focuses on very tall towers (greater than 1000 feet), illuminated with non-flashing lights, and guyed. These types of towers, particularly if sited in major migratory pathways, do result in significant bird mortality (Manville, 2005)[9]. The proposed Facility is not this type of tower, being an unlit, unguyed monopole structure only 90 feet in height. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds[10]. Studies of mean flight altitude of migrating birds reveal flight altitudes of 410 meters (1350 feet), with flight altitudes on nights with bad weather between 200 and 300 meters above ground level (656 to 984 feet)[11].

No adverse impacts to migrating bird species are anticipated with development of the Facility, based on its design (unlit and unguyed) and relatively short (90-foot) height, and the distances separating the host Property from the potential Housatonic and Pequonnock River flyways.

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[6] Stokowski, J.T. 2002. Migratory Bird Stopover Habitat Project Finishes First Year. Connecticut Wildlife, November/December 2002. P.4.

[7] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey http://www.science.smith.edu/stopoverbirds/index.html

[8] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html

[9] Manville, A.M. II. 2005. Bird strikes and electrocutions at power lines, communications towers, and wind turbines: state of the art and state of the science - next steps toward mitigation. Bird Conservation Implementation in the Americas: Proceedings 3rd International Partners in Flight Conference 2002. C.J. Ralph and T.D. Rich, editors. USDA Forest Service General Technical Report PSW-GTR-191. Pacific Southwest Research Station, Albany CA. pp. 1-51-1064.

[10] Kerlinger, P. 2000. Avian Mortality at Communication Towers: A Review of Recent Literature, Research, and Methodology. Prepared for U.S. Fish and Wildlife Service Office of Migratory Bird Management.

[11] Mabee, T.J., B.A. Cooper, J.H. Plissner, D.P. Young. 2006. Nocturnal bird migration over an Appalachian ridge at a proposed wind power project. Wildlife Society Bulletin 34:682-690.

Waterfowl Focus Areas

The Atlantic Coast Joint Venture ("ACJV") is an affiliation of federal, state, regional and local partners working together to address bird conservation planning along the Atlantic Flyway. The ACJV has identified waterfowl focus areas recognizing the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas. The nearest waterfowl focus area to the host Property is the Lower Housatonic River - Great Meadows area, located approximately 2.7 miles to the southeast. Please refer to the attached Connecticut Waterfowl Focus Areas Map.

CTDEEP Migratory Waterfowl Data

The Connecticut Department of Energy and Environmental Protection ("CTDEEP") created a Geographic Information System ("GIS") data layer in 1999 identifying concentration areas of migratory waterfowl at specific locations in Connecticut. The intent of this data layer is to assist in the identification of migratory waterfowl resource areas in the event of an oil spill or other condition that might be a threat to waterfowl species. This data layer identifies conditions at a particular point in time and has not been updated since 1999.

The nearest migratory waterfowl area, the Housatonic River at Nells Island in Stratford-Milford, is located approximately three (3) miles to the southeast of the host Property. The associated species are identified as American black duck, bufflehead, Canada goose, canvasback, goldeneye, mallard, and green wing teal. Based on the distance of this migratory waterfowl area to the host Property, no impact to migratory waterfowl would result from development of the proposed Facility.

CTDEEP Natural Diversity Data Base

CTDEEP's Natural Diversity Data Base ("NDDB") program performs hundreds of environmental reviews each year to determine the impact of proposed development projects on state listed species and to help landowners conserve the state's biodiversity. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by CTDEEP staff, scientists, conservation groups, and landowners. The general locations of species and communities are symbolized as shaded areas on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner's rights whenever species occur on private property.

According to the most recent available NDDB maps (June 2017), the host Property is not located within any shaded NDDB buffer areas and therefore the proposed project is not anticipated to conflict with any listed rare species. Although not required under CTDEEP's NDDB review procedures, APT submitted a review request with respect to this project to confirm that no known populations of Federal or State Endangered, Threatened or Special Concern Species occur on this property.

In a June 27, 2017 letter from the CTDEEP NDDB, the agency stated that it does "not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from" the proposed activity.[12]

USFWS Communications Towers Compliance

In August 2016, the USFWS prepared its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning.* These suggested best practices were developed to assist tower companies in developing their communication systems in a way which minimizes the risk to migratory birds and threatened and endangered species. The following avoidance and minimization measures, when used comprehensively, are recommended by USFWS to reduce the risk of bird mortality at communication towers. APT offers the following responses to each of the USFWS recommendations which are abridged from the original document.

SITING AND CONSTRUCTION OF NEW TOWERS

1. *Collocation of the communications equipment on an existing communication tower or other structure (e.g., billboard, water and transmission tower, distribution pole, or building mount) is strongly recommended. This recommendation is intended to reduce the number of towers across the landscape.*

   Collocation opportunities on existing towers, buildings or non-tower structures are not available in the area while achieving the required radio frequency ("RF") coverage objectives.

2. *Contact with USFWS Field Office. Communicate project plans to nearest USFWS Field Office.*

   APT, on behalf of Tarpon Towers II, LLC consulted with the USFWS Region 1 Field Office as part of its environmental due diligence efforts with respect to the National Environmental Policy Act.

3. *Placement. All new towers should be sited to minimize environmental impacts to the maximum extent practicable.*

   a. *Place new towers within existing "antenna farms" (i.e., clusters of towers) when possible.*

      There are no existing "antenna farms", degraded or commercial areas in the vicinity of the proposed tower site that would satisfy the RF coverage objectives.

   b. *Select already degraded areas for tower placement.*

      The proposed Facility site is located on an industrial property.

   c. *Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries, and Important Bird Areas), or in known migratory bird movement routes, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, or key habitats for Birds of Conservation Concern.*

[12] The CTDEEP's determination is good for two (2) years.

The proposed Facility is not within wetlands, known bird concentration area, migratory or daily movement flyway, and habitat of threatened/endangered species or result in fragmentation of a core forest habitat that could potentially provide habitat for Birds of Conservation Concern.

d. Towers should avoid ridgelines, coastal areas, wetlands or other known bird concentration areas.

The proposed Facility Site is not located within any of these areas.

e. Towers and associated facilities should be designed, sited, and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". In addition, several shorter, un-guyed towers may be preferable to one, tall guyed, lit tower.

The proposed Facility is sited, designed, and would be constructed to accommodate proposed equipment and to allow for future collocations within the smallest footprint possible. The Facility would be located within the development footprint associated with the industrial use of the host Property and therefore will not result in habitat fragmentation or the creation of barriers or excessive disturbance. The proposed Facility would consist of a 90-foot monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard".

4. Construction. During construction, the following considerations can reduce the risk of take of birds:

a. Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing) activities outside of the peak bird breeding season to reduce the risk of bird take.

To the extent feasible, Tarpon Towers II, LLC would schedule these activities outside the peak breeding season.

b. When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:

i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;

ii. Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and

iii. If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged.

If construction activities should occur during the peak nesting period of April 15 through July 15[13], efforts would be taken to complete tree clearing work prior to April 15th; 2) or, if tree clearing has not been completed by April 15th, an avian survey may be conducted to determine if breeding birds would be disturbed; and 3) If the avian survey concludes that breeding birds would be disturbed, tree clearing activities may be restricted from the April 15 through July 15 peak nesting period (or a modified time frame based on the specific findings of the survey).

[13] USFWS identifies the peak avian nesting season as April 15 through July 15 and recommends clearing activities be performed before this period in order to comply with the Migratory Bird Treaty Act, personal communication with Maria Tur, USFWS New England Field Office, February 27, 2014.

c. Prevent the introduction of invasive plants during construction to minimize vegetation community degradation by:

i. Use only native and local (when possible) seed stock for all temporary and permanent vegetation establishment; and

ii. Use vehicle wash stations prior to entering sensitive habitat areas to prevent accidental introduction of non-native plants.

No landscaping or other vegetation plantings are proposed. No sensitive habitat areas exist at the project site.

5. Tower Design. Tower design should consider the following attributes:

a. Tower Height. It is recommended that new towers should be not more than 199 ft. above ground level (AGL). This height increases the mean free airspace between the top of the tower and average bird flight height, even in weather conditions with reduced cloud ceiling;

b. Guy Wires. We recommend using free standing towers such as lattice towers or monopole structures.

c. Lighting System. Lights are a primary source of bird aggregation around towers, thus minimizing all light is recommended, including:

i. No tower lighting is the preferred option if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2015, Patterson 2012) permit.

ii. If taller (> 199 ft. AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used.

iii. Security lighting for on-ground facilities, equipment, and infrastructure should be motionor heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination while still allowing safe nighttime access to the site.

The proposed Facility would consist of a 90-foot monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard". Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer to eliminate constant nighttime illumination.

OPERATION AND MAINTENANCE OF ALL TOWERS

1. Existing Tower Lighting. We recommend that towers be unlit, when allowed by FAA regulations.

The proposed Facility would consist of a 90-foot monopole structure which does not require aviation lighting.

2. *Infrastructure Lighting. We recommend that existing infrastructure be unlit. If associated buildings require security or operational lighting, minimize light trespass using motion sensors and downshielding with minimum intensity light.*

   Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer to eliminate constant nighttime illumination.

3. *Vegetation Management. When management of facility infrastructure is required:*

   a. *Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing) activities outside of the peak bird breeding season to reduce the risk of bird take.*

   To the extent feasible, Tarpon Towers II, LLC would schedule these activities outside the peak breeding season.

   b. *When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:*
      i. *Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;*
      ii. *Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and*
      iii. *If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged.*

   If construction activities should occur during the peak nesting period of April 15 through July 15[14], efforts would be taken to complete tree clearing work prior to April 15th; 2) or, if tree clearing has not been completed by April 15th, an avian survey may be conducted to determine if breeding birds would be disturbed; and 3) If the avian survey concludes that breeding birds would be disturbed, tree clearing activities may be restricted from the April 15 through July 15 peak nesting period (or a modified time frame based on the specific findings of the survey).

4. *Birds Nesting on Towers: If birds are nesting on communication towers that require maintenance activities, contact the state natural resource protection agency and/or the USFWS for permits, recommendations, and requirements. Schedule construction and maintenance activities around the nesting and activity schedule of protected birds. Minimize excess wires and securely attach wires to the tower structure to reduce the likelihood of birds becoming entangled on the tower. Consider installing a bird nest exclusion device on the towers where birds frequently nest.*

   After construction, should birds nest on the proposed Facility in the future, Tarpon Towers II, LLC and its leases would follow these recommendations to protect migratory birds.

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[14] USFWS identifies the peak avian nesting season as April 15 through July 15 and recommends clearing activities be performed before this period in order to comply with the Migratory Bird Treaty Act, personal communication with Maria Tur, USFWS New England Field Office, February 27, 2014.

6. *Tower Access: Representatives from the USFWS or researchers should be allowed access to the site to evaluate bird use, conduct dead-bird searches, and conduct other research, as necessary.*

   With prior written notification to and approval by Tarpon Towers II, LLC, USFWS research personnel would be allowed access to the proposed Facility to conduct evaluations.

DECOMMISSIONING

1. *Tower Removal. Towers no longer in use, not re-licensed by the FCC for use, or determined to be obsolete should be removed from the site within 12 months of cessation of use, preferably sooner.*

   If the proposed Facility was no longer in use, not re-licensed by the FCC for use, or determined to be obsolete, it would be removed within 12 months of cessation of use.

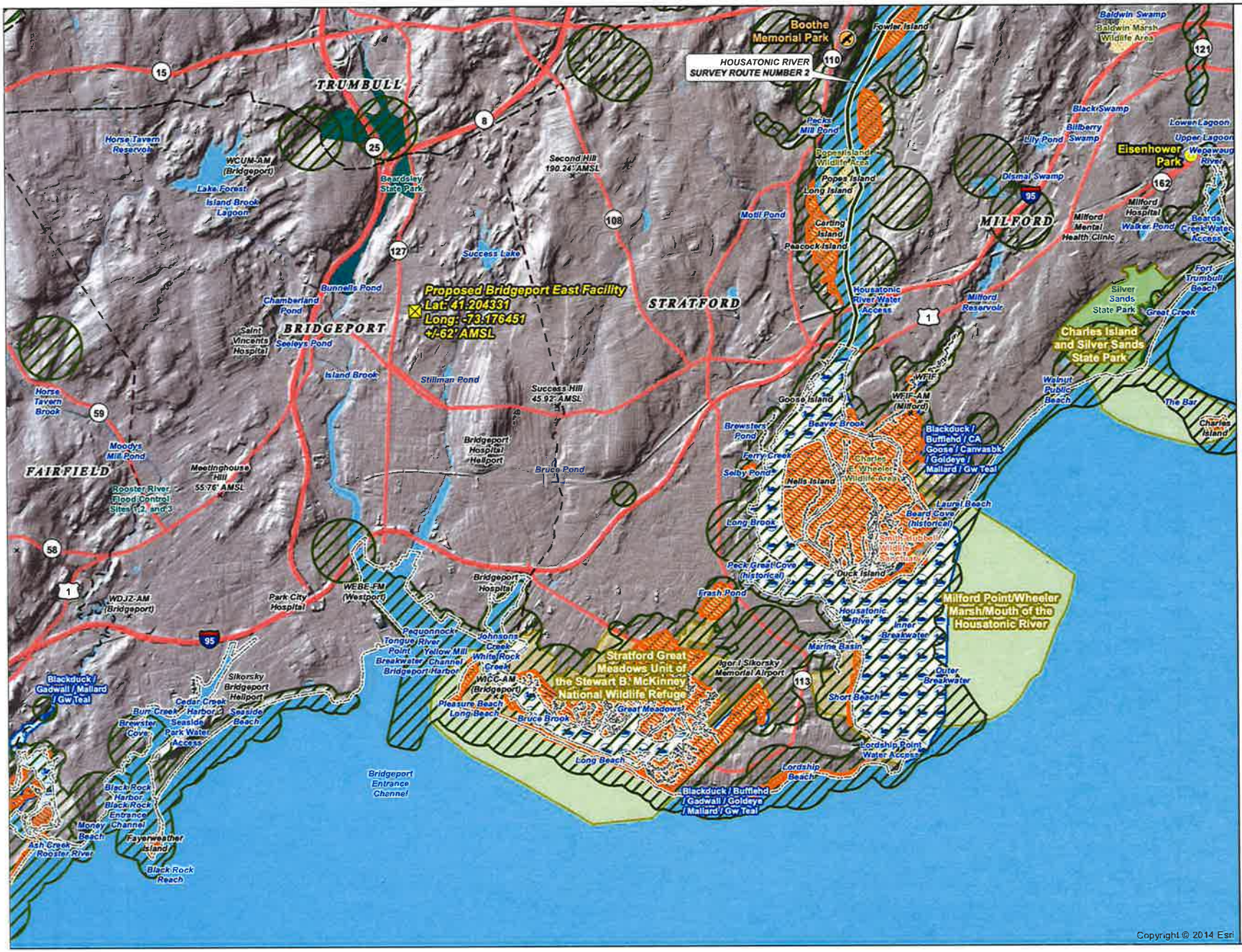
Summary and Conclusions

The proposed Facility is not proximate to an Important Bird Area and would comply with the USFWS guidelines for minimizing the potential impacts to birds being an unlit, unguyed monopole structure only 90 feet in height. It has been sited and designed to minimize the potential for adverse impacts to migratory birds.

Based on the results of this desk-top evaluation, no migratory bird species are anticipated to be impacted by the proposed development.

Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map



Avian Resources Map

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

Legend

- Proposed Facility
- Hawk Watch Site
- Important Bird Site*
- Important Bird Area
- Bald Eagle Survey Route
- Breeding Bird Survey Route
- Natural Diversity Database (CTDEEP, 06/2016)
- Critical Habitat (CTDEEP, 07/2009)
- Migratory Waterfowl (CTDEEP, 1999)
- Protected Open Space (CTDEEP, 2011)*
- Federal Open Space (CTDEEP, 2004)

CT DEP Property (CT DEEP, 12/2010)

- State Forest
- State Park
- DEP Owned Waterbody*
- State Park Scenic Reserve*
- Historic Preserve*
- Natural Area Preserve*
- Fish Hatchery*
- Flood Control
- State Park Trail*
- Water Access*
- Wildlife Area
- Wildlife Sanctuary*
- Other*
- Open Water
- Town Boundary
- State Boundary

*None within mapped extents

Avian Source Information:

Bald Eagle Sites: U.S. Geological Survey, National Biological Information Infrastr, 2008, Midwinter Bald Eagle Counts, 1986-2005 (update 2008).
Hawk Watch Sites: Hawk Migration Association of North America (HMANA), Hawk Count website: http://hawkcount.org/sitesel.php?country=USA&stateprov=Connecticut
Migratory Waterfowl: CTDEEP GIS, 1999
Important Bird Sites/Areas: National Audubon Society, Audbon Connecticut
http://ct.audubon.org/BirdSci_IBAs.html
Breeding Bird Survey Routes: Patuxent Wildlife Research Center of the U.S. Geological Survey and the Canadian Wildlife Service's National Wildlife Research Centre
http://www.mbr-pwrc.usgs.gov/bbs/bbs1.html

Base Map Source: CTECO shaded relief

Map Date: June 2017

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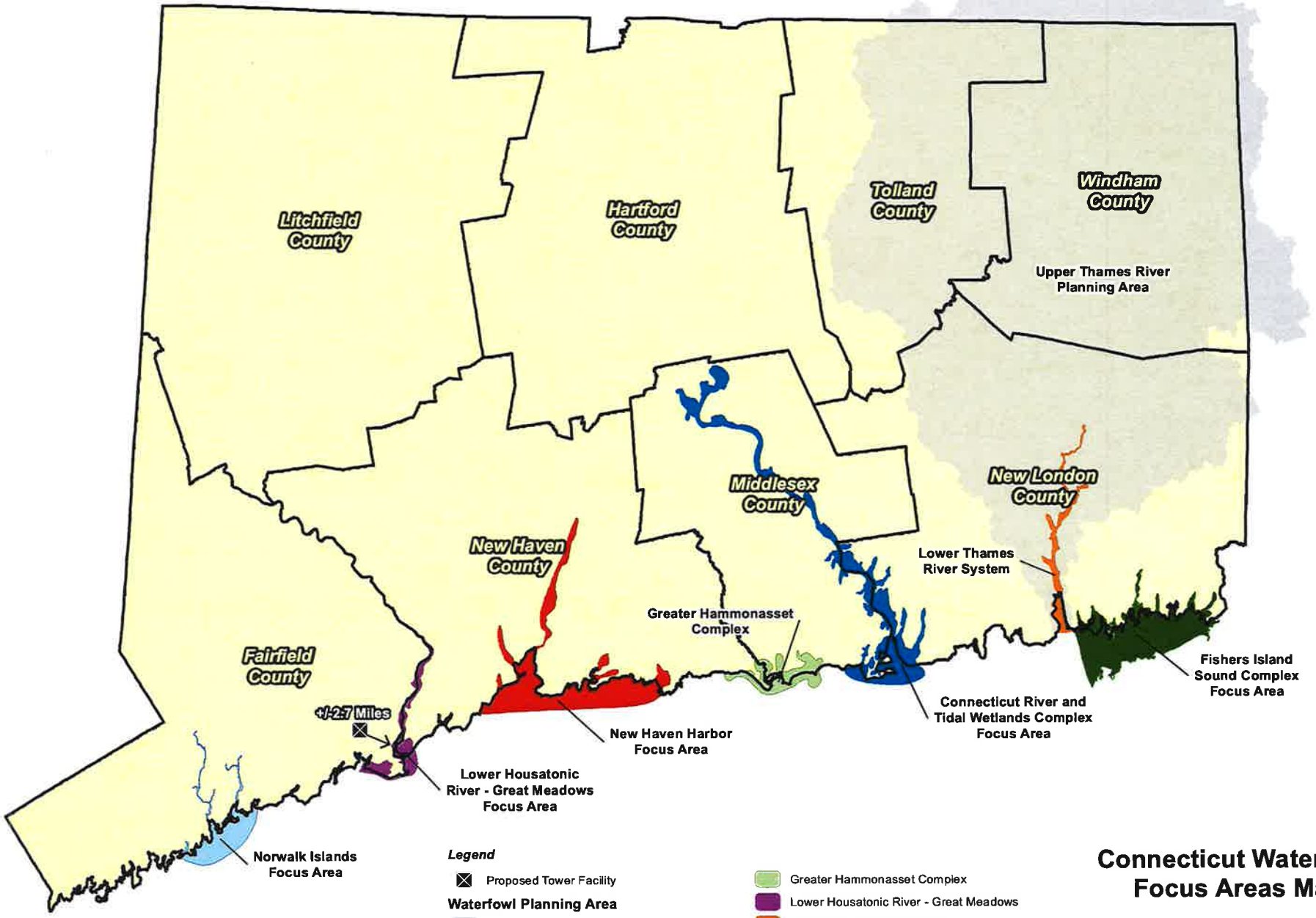
ALL-POINTS TECHNOLOGY CORPORATION

TARPON TOWERS



Connecticut Waterfowl Focus Areas Map

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

TARPON TOWERS

Waterfowl Data Source: Atlantic Coast Joint Venture Partnership
Map Date: June 2017

ATTACHMENT 3

HMB

HMB Acoustics LLC 3 Cherry Tree Lane, Avon, CT 06001 860-677-5955

Noise Evaluation Report

Tarpon Towers And Verizon Wireless
Wireless Communications Facility
Bridgeport "East"
380 Horace Street
Bridgeport, CT

December 26, 2017

Prepared For:
Douglas Roberts
Hudson Design Group LLC
110 Washington Avenue
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Prepared By:
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3 Cherry Tree Lane
Avon, CT

Introduction

Tarpon Towers and Verizon have proposed a wireless communications facility to be located at 380 Horace Street, Bridgeport, CT. I have reviewed site plans and specifications regarding the proposed 25 kw Spark-Ignited emergency generator on a steel platform, at grade. The generator will be housed in a Level 1 Acoustic Enclosure, and will be inside an 8 foot x 19 foot compound. The area will be surrounded by an 8 foot tall chain link fence. The purpose of this evaluation is to determine whether the emergency generator complies with the State of CT Noise Regulations. Background noise levels were taken in the surrounding vicinity on December 19, 2017. The noise levels averaged between 50-55 dBA, and are used as a baseline. The generator is located in an Industrial Noise Zone.

It is important to note that the generator typically operates approximately 15-20 minutes every other week for testing. All testing is done during daytime hours. Other than these testing periods, the generator runs only in times of emergency when commercial power to the facility is interrupted. This report and the noise regulations utilize a dBA scale. This scale is used because it closely approximates the response characteristic of the human ear to loudness, and is the scale most commonly used in the measurement of community noise.

Noise Regulations

The State of CT has enacted noise regulations which limit the amount of noise which may be transferred from one property to another. In pertinent part, the Regulations provide as follows:

Daytime Hours - The hours between 7 a.m. and 10 p.m. local time (Sec.22a-69-1.1(h).

Nighttime Hours - The hours between 10 p.m. and 7 a.m. local time. (Sec.22a-69-1.1(n).

No person in a Class "C" Noise Zone (Industrial) shall emit noise exceeding the levels stated herein and applicable to adjacent noise zones.

Emitter Zone	Allowable Noise Levels (dBA) At Receptor Zones			
	Industrial	Commercial	Residential Day / Night	
Industrial (Sec. 22a-69-3,5(a).	70	66	61	51

The noise levels (dBA) take into account the effect of acoustical shielding provided by other structures on the property.

Noise Evaluation Results

Calculated Noise Levels (dBA)
The Generator Noise Level Has Been Projected
To The Nearest Residential Property Lines

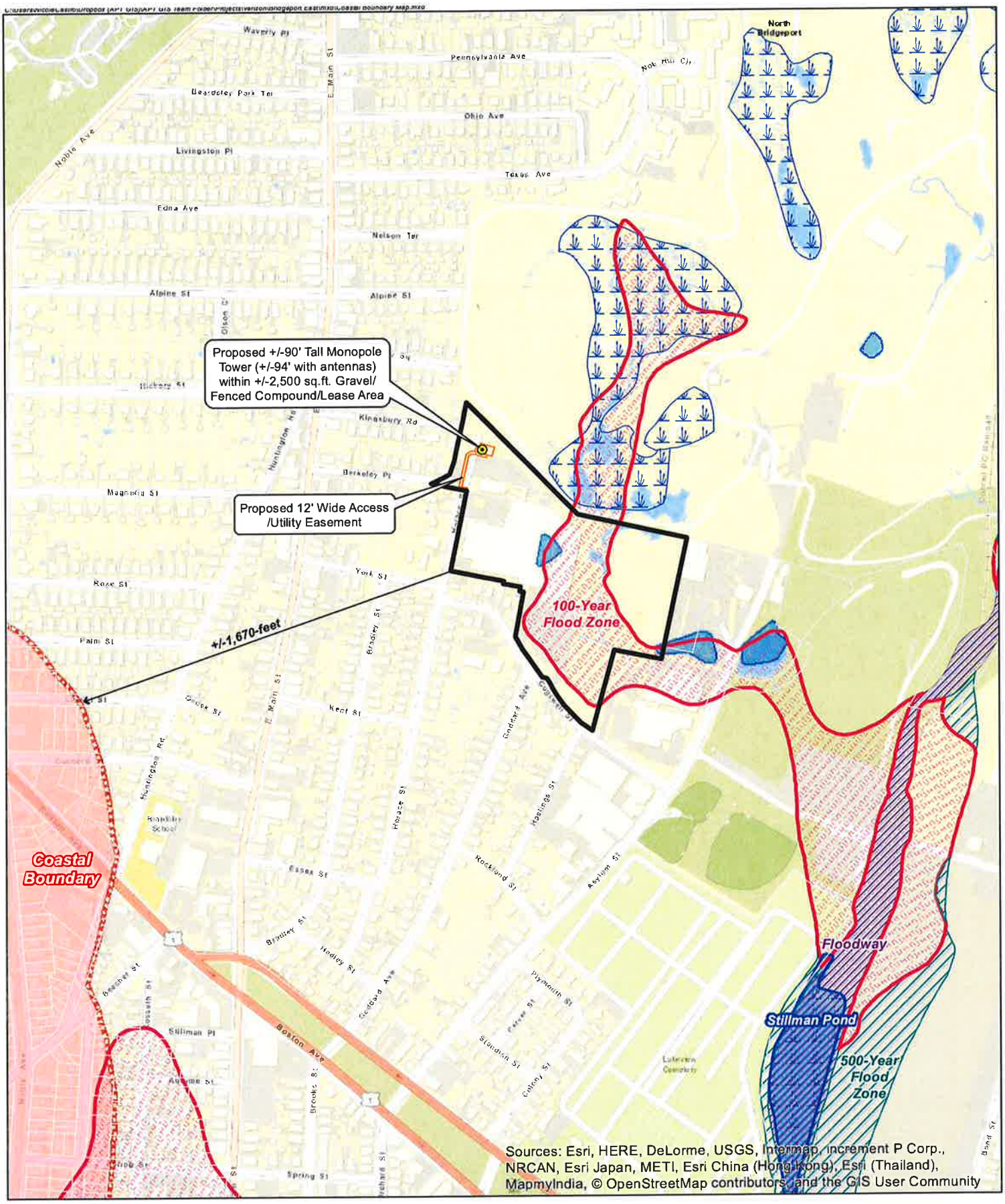
	The Noise Level Allowed By The Regulation		Projected Noise Level	
	a.m.	p.m.	a.m.	p.m.
North	61	51	40	40
South	61	51	36	36
East	61	51	31	31
West	61	51	42	42

Note: The East direction also includes open space and wetlands

The calculated noise data demonstrates that the noise levels meet the conditions for compliance as set forth in the State of CT Noise Regulations, when projected to the nearest residential property lines.

Additionally, the data also shows that the noise levels would not exceed the allowable limits when projected to a Commercial Noise Zone area.

ATTACHMENT 4



Legend

- Proposed Monopole Tower
- Proposed Facility Layout
- Approximate Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)
- CTDEEP Wetlands
- Open Water
- CTDEEP Coastal Boundary
- 100-Year Flood Zone
- 500-Year Flood Zone
- Floodway

Map Notes:
Base Map Source: ESRI Street Map
Map Scale: 1 inch = 550 feet
Map Date: December 2017

N W E S

500 250 0 500 Feet

Coastal Boundary Map

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

verizon

ALL-POINTS TECHNOLOGY CORPORATION

ATTACHMENT 5

ALL-POINTS TECHNOLOGY CORPORATION

Section 7 Consultation

November 9, 2015
Revised December 28, 2015

APT Project No.: CT223210

U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

Attn: Maria E. Tur
(via Email: Maria_Tur@fws.gov)

Re: Proposed CSB East Bridgeport
90' Tall Monopole Tower Facility
380 Horace Street
Bridgeport, Faifield County, CT
Lat: 41.204331 Long: 73.176451

On behalf of Construction Services of Branford ("CSB"), All-Points Technology Corporation, P.C. ("APT") performed an evaluation with respect to possible Federally-listed, Threatened or Endangered species in order to determine if the proposed referenced communications facility would result in a likely adverse effect to Federally-listed species. This consultation was completed in accordance with FCC rules implementing the National Environmental Policy Act ("NEPA") and Section 7 of the Endangered Species Act through the U.S. Fish and Wildlife Service's ("USFWS") Information, Planning, and Conservation System ("IPaC")[1] for a proposed telecommunications facility at the referenced Site. Refer to the enclosed Site Location Map, Aerial Photograph and Project Site Plans for information regarding the location of the Facility and subject property and details regarding the proposed project. The subject property was inspected on November 6, 2015 by Dean Gustafson, APT's Senior Environmental Scientist; photographs of site conditions located within the proposed CSB development area are enclosed.

Red Knot and Northern Long-eared Bat

Two federally-listed[2] Threatened species are known to occur in the vicinity of the subject property documented as the red knot (*Calidris canutus rufa*) and northern long-eared bat (*Myotis septentrionalis*). A copy of the IPaC report is enclosed. Although the IPaC report did not identify northern long-eared bat, the Federally Listed Endangered and Threatened Species in Connecticut list identifies northern long-eared bat's range encompassing the entire State of Connecticut, including Fairfield County; a copy of the list is enclosed. As a result of this preliminary finding and in accordance with USFWS New England Field Office's Section 7 consultation policy, habitat supported by the subject property and an evaluation of whether it is suitable for red knot and northern long-eared bat is described below.

Red Knot The Federally Listed Endangered and Threatened Species in Connecticut list identifies red knot as being located only in small numbers during migration in coastal towns (such as Bridgeport) in Fairfield County. At 9 to 10 inches long, the red knot is a large, bulky sandpiper with a short, straight, black bill. During the breeding season, the legs are dark brown to black, and the breast and belly are a characteristic

[1] IPaC Consultation Tracking Number: 05E1NE00-2016-SLI-0249, dated November 7, 2015

[2] Listing under the Federal Endangered Species Act

russet color that ranges from salmon-red to brick-red. Males are generally brighter shades of red, with a more distinct line through the eye. When not breeding, both sexes look alike—plain gray above and dirty white below with faint, dark streaking. As with most shorebirds, the long-winged, strong-flying knots fly in groups, sometimes with other species. Red knots feed on invertebrates, especially small clams, mussels, and snails, but also crustaceans, marine worms, and horseshoe crab eggs.

Coastal habitats used by red knots in migration and wintering areas are similar in character, generally coastal marine and estuarine (partially enclosed tidal area where fresh and salt water mixes) habitats with large areas of exposed intertidal sediments.[3] Migration and wintering habitats include both high-energy ocean- or bay-front areas, as well as tidal flats in more sheltered bays and lagoons. Preferred wintering and migration microhabitats are muddy or sandy coastal areas, specifically, the mouths of bays and estuaries, unimproved tidal inlets and tidal flats. In many wintering and stopover areas, quality high-tide roosting habitat (i.e., close to feeding areas, protected from predators, with sufficient space during the highest tides, free from excessive human disturbance) is limited.

The red knot is a shorebird typically found along the Connecticut coastline during northbound and southbound migration. These birds spend most of their time foraging along the waterline within the intertidal zone. Not known to occur at inland locations, red knots can be found on Connecticut's barrier beaches from mid-April to the end of May, and then again from July through mid-September.[4] Sometimes non-breeding individuals may linger along Connecticut barrier beaches between migratory periods, and late individuals may pass through on southbound migration well into November.

Northern Long-eared Bat The northern long-eared bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wingspan of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats are a forest interior species that require adequate canopy closure for both roost and foraging habitat.[5] Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. Suitable northern long-eared bat roosts are trees (live, dying, dead, or snag) with a diameter at breast height ("DBH") of three inches or greater that exhibits any of the following characteristics: exfoliating bark, crevices, cavity, or cracks.[6] In the eastern United States, maternity roost tree species included beech (*Fagus grandifolia*), silver maple (*Acer saccharinum*), red maple (*A. rubrum*), black cherry (*Prunus serotina*), green ash (*Fraxinus pennsylvanica*), black locust (*Robinia pseudoacacia*), elm (*Ulmus spp.*) and artificial roosts.[7,8,9,10,11,3] In New Brunswick,

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[3] US Fish and Wildlife Service. Rufa Red Knot Background Information and Threats Assessment, Supplement to Endangered and Threatened Wildlife and Plants; Final Threatened Status for the Rufa Red Knot (Calidris canutus rufa). November 2014. 383 pp.

[4] Connecticut Audubon Society Bird Finder for May 23: Red Knot - http://www.ctaudubon.org/2014/05/connecticut-audubon-society-bird-finder-for-may-23-red-knot/#sthash.oT1QBhV3.dpuf

[5] Lausen, C. 2009. Status of the Northern Myotis (Myotis septentrionalis) in Alberta, Alberta Wildlife Status Report No. 3 (Update 2009).

[6] US Fish and Wildlife Service. Northern Long-Eared Bat Interim Conference and Planning Guides, USFWS Regions 2, 3, 4, 5, & 6. January 6, 2014. 67 pp.

[7] Foster, R.W., and A. Kurta. 1999. Roosting ecology of the northern bat (Myotis septentonalis) and comparisons with the endangered Indiana bat (Myotis sodalis). Journal of Mammalogy 80:659-672.

[8] Grindal, S.D. and R.M. Brigham. 1999. Impacts of forest harvesting on habitat use by foraging insectivorous bats at different spatial scales. Ecoscience 6:25–34.

[9] Owen, S.F., M.A. Menzel, W.M. Ford, J.W. Edwards, B.R. Chapman, K.V. Miller, P.B. Wood. 2002. Roost tree selection by maternal colonies of northern long-eared myotis in an intensively managed forest. USDA Forest Service, General Technical Report NE-292, Northeastern Research Station, Newtown Square, PA, p. 6.

[10] Thompson, F.R., III, ed. 2006. Conservation assessments for five forest bat species in the Eastern United States. Gen. Tech. Rep. NC-260. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 82 p.

[11] Lacki, M.J., D.R. Cox, and M.B. Dickinson. 2009. Meta-analysis of Summer Roosting Characteristics of Two Species of Myotis Bats. American Midland Naturalist. 162:318–326.

Canada, northern long-eared bat maternity roost trees were 24 times more likely to be found in deciduous trees than conifers[12,8], although preferred tree species seems to vary throughout the species range.[8] Forest stands with a more diverse stocking of tree species recorded a higher abundance of northern long-eared bats.[13] The availability of mid-decay snags is an important feature in the forest structure for northern long-eared bats.[14,10] Although not exclusive to snag trees, one study of northern long-eared bats documented 100 percent of the population used snag trees during some portion of the maternity roost season.[9] Snags that have shed their branches with sloughing bark seem to offer desirable conditions[11], although other features such as canopy closure, proximity to water and limited open spaces seem to be equally as important for roost tree selection.[12,15] Isolated trees are considered suitable habitat when they exhibit the characteristics of a suitable roost tree and are less than 1000 feet from the next nearest suitable roost tree within a woodlot, or wooded fencerow. This bat has also been found rarely roosting in structures, like barns and sheds.

Loss or degradation of summer (forest) habitat is one of several management concerns for this rare species with the principal concern being loss from white-nose syndrome. Depending on type and timing of forest management activities, the potential exists for mortality and temporarily removal or degradation of roosting and foraging habitat.

To avoid killing or injuring northern long eared bat, the following conservation measures are to be adhered to under Interim 4(d) Rule (April 2, 2015) of the federal Endangered Species Act for this species:

I. No activities are to occur within 0.25 mile of a known, occupied hibernacula[16]

II. Avoid cutting or destroying of known, occupied roost trees during the pup season of June 1st to July 31st

III. Avoid clear-cutting (or similar harvesting methods) within 0.25 mile of known, occupied roost trees during the pup season of June 1st to July 31st

However, under the "Project Resulting in Minimal Tree Removal[17]" subsection of Interim 4(d) Rule, incidental take of northern long eared bat resulting from a project where the cumulative acreage of trees to be removed is less than 1 acre and will not significantly change the overall nature and function of the local forest habitat may not be prohibited under Interim 4(d) Rule.

In its July 7, 2015 policy memorandum, the USFWS New England Field Office ("NEFO") recommends for projects that have Federal involvement the following time-of-year restrictions to avoid adverse effects to northern long-eared bat that may be roosting in trees that could be cleared (assuming presence). The time-of-year restrictions described below are predicated on the conclusion that if surveys are not conducted

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[12] Broders, H.G., and G.J. Forbes. 2004. Interspecific and intersexual variation in roost-site selection of northern long-eared and little brown bats in the Greater Fundy National Park ecosystem. Journal of Wildlife Management 68: 602-610.

[13] Lacki, M.J., and J. Schwierjohann. 2001. Day roost characteristics of northern bats in mixed mesophytic forest. Journal of Wildlife Management 65: 482-488.

[14] Yamaśaki, M. 2004. Bats and small mammals in old growth habitats in the White Mountains. In, Bennett, K.P. technical coordinator. 2005. Moving toward sustainable forestry: lessons from old growth forests. University of New Hampshire Cooperative Extension Natural Resource Network Report.

[15] Carter, T.C. and G.A. Feldhamer. 2005. Roost tree use by maternity colonies of Indiana bats and northern long-eared bats in southern Illinois. Forest Ecology and Management 219:259-268.

[16] locations of hibernacula are identified by Vermont Agency of Natural Resources Natural Resources Atlas Map

[17] Interim 4(d) Rule defines "minimal tree removal" as follows: many activities that involve cutting or removal of individual or limited numbers of trees do not significantly change the overall nature and function of the local forested habitat. Some of these activities include firewood cutting, shelterbelt renovation, removal of diseased trees, tree removal for other small projects (i.e., culvert replacement), habitat restoration for fish and wildlife conservation, and backyard landscaping.

With respect to the term "minimal," USFWS limits the effect to an impact of one acre of contiguous habitat or one acre in total within a larger tract, whether that larger tract is entirely forested or a mixture of forested and non-forested cover types. Tract may be further defined as the property under the control of the project proponent or ownership.

to determine whether northern long-eared bats are present, presence is assumed as long as suitable habitat is present.

April 15 - October 31 - project is located within 1 mile or less from known hibernaculum

April 15 - September 30 - Known site[18] - acoustic and/or mist-net confirmation

April 15 - August 31 - Unknown site/no data (with the exception of coastal towns)

These time-of-year restrictions do not address a minimum acreage below which the NEFO does not anticipate habitat impacts to northern long-eared bats. The NEFO still needs to review the proposed acreage of tree cutting to ensure that there are no impacts as a result of significant roosting or foraging habitat loss (assuming presence). Information is enclosed herein to assess potential northern long-eared bat impact as a result of the acreage of tree cutting proposed.

Subject Property and Project Descriptions

CSB proposes to construct a new wireless telecommunications Facility at 380 Horace Street in Bridgeport, Connecticut (the "subject property"). The subject property consists of an approximately ±13.67-acre industrially developed parcel that is improved with a large industrial building and associated paved storage, parking and the German Club facility. The area proposed for the CSB development is located just north of the paved parking lot that serves the German Club in the northwest corner of the subject property. The proposed development area is characterized by an existing cleared gravel parking area and small patch forest. CSB proposes to install a 90-foot tall monopole tower and ground equipment enclosure within a 40-foot by 62.5-foot gravel compound area surrounded with an 8-foot tall chain link fence ("Facility"). A proposed 20-foot wide access and utility easement would follow the existing paved driveway that serves the German Club.

CTDEEP NDDB Consultation

APT has performed an evaluation with respect to state-listed Endangered, Threatened or Special Concern species in Connecticut in order to determine if the proposed Facility would result in a potential adverse effect to State-listed species: northern long-eared bat is listed as State Endangered Species, red knot is not identified as a State-listed species. Consultation with the Connecticut Department of Energy & Environmental Protection ("CTDEEP") Natural Diversity Data Base ("NDDB") was made for state-listed species review to evaluate if State-listed, Threatened, Endangered or Special Concern Species would potentially be adversely affected by the proposed project. Correspondence from the CTDEEP (July 24, 2015; attached) reveals that no State-listed species occur on or within in the vicinity of the subject property.

Habitat Impact Analysis

Red Knot Coastal habitats used by red knot in migration and wintering areas (when red knot would be expected to be in Connecticut) consist of coastal marine and estuarine habitats, including barrier beaches, with feeding occurring in the intertidal zone. High-tide roosting habitat (when feeding grounds are inundated) include areas close to feeding areas, protected from predators, with sufficient space during the highest tides and free from excessive human disturbance.

The proposed CSB development is located inland approximately 2 miles north of Bridgeport Harbor, which consists of a heavy industrialized developed shorefront. The subject property, consisting of a developed property with some inland upland forest habitat, does not provide coastal marine or estuarine habitat. The nearest potentially suitable red knot habitat to the proposed CSB development would be located approximately 3 miles to the south/southeast associated with Pleasure Beach, Long Beach and the Great

[18] "known site" as determined in consultation between the NEFO and the State Natural Resource agency OR projects located in "Coastal New England"

Meadows estuary and tidal wetlands area. Therefore, due to the lack of red knot habitat on or in proximity to the subject property and the significant distance separating the proposed CSB project from potentially suitable red knot habitat, no further coordination with the NEFO is required.

Northern Long-eared Bat Available literature suggests that the most probable areas of northern long-eared bat habitat will be in hardwood or mixed forests with primarily closed canopies and mid-decay stage, large-diameter snags. In addition, activities proposed within 1 mile of known northern long-eared bat hibernacula could result in an adverse impact to this species. The following discussion provides an assessment of the loss of forest habitat resulting from the proposed activity in the context of the surrounding forested habitat.

A field assessment of forest habitat and potential northern long-eared bat roosting habitat was performed on October 6, 2015 by Dean Gustafson, Senior Environmental Scientist with APT. A small forest area is bordered by a cleared gravel parking area to the west, paved parking lot to the south and cleared area to the east. Forest habitat extends off the subject property to the north. This small forest patch consists of an uneven aged forest with 70% canopy closure with dominant tree species including Eastern cottonwood, black cherry, sassafras, Norway maple, pignut hickory and white oak that have an average diameter at breast height ("DBH") ranging from 6 to 12 inches. The forest understory is dominated by invasive shrubs including multiflora rose, winged euonymus and bush honeysuckles along with greenbrier briar. Mr. Gustafson noted that generally the larger trees all had relatively small bark crevices that did not likely provide significant bat roosting habitat.

Based on buffered northern long-eared bat hibernacula data provided by the CTDEEP Wildlife Division, the proposed Facility is located 23 miles southwest from the nearest hibernaculum. Due to the sensitive nature of this data, no mapping is provided depicting the location of this hibernaculum. The proposed project would not result in a likely adverse effect to northern long-eared bat hibernacula since the nearest hibernaculum is located greater than one (1) mile from the project.

A forest fragmentation model has been developed by the University of Connecticut Center for Land Use Education and Research ("CLEAR") to classify forest cover into four main categories of increasing disturbance – *core, perforated, edge and patch* – based on a key metric called edge width.[19] Core forest areas are sub-classified into three categories – *small core, medium core, and large core* – based on the area of a given core patch: large core forest = >500 acres; medium core = 500 – 250 acres; small core = <250 acres. Based on this forest block analysis tool, the subject property forest is classified as *Developed.* Refer to the Forest Fragmentation Map provided in the Figures Attachment. A field review of the habitat at the project location reveals the forest habitat at the project site should be classified either as *Patch Forest* or *Edge Forest* as noted by these forest types adjacent to the project. *Patch Forest* or *Edge Forest* classifications are a result of the existing industrial development on the subject property and surrounding urban residential development and roadways that have resulted in significant fragmentation of the small core forest block located nearby to the north. The proposed CSB development will result in approximately 0.07 acre of forest removal, which equates into ±16 trees 3" DBH or greater to be removed. Therefore, since the proposed development will not result in a significant area of tree removal and will not result in fragmentation of a core forest block (Facility is located within a *Patch Forest* or *Edge Forest*), no significant change to the overall nature and function of this forest habitat would occur due to the proposed CSB development. Because the project will result in a small amount of forest clearing relative to the available habitat in the immediately surrounding area, habitat removal is unlikely to result in significant impacts to the species. Therefore, it is anticipated that removing potential roost trees is not likely to cause indirect adverse effects to northern long-eared bat.

[19] Forest Fragmentation Assessment Model. UCONN Center for Land Use Education and Research. 2007. http://clear.uconn.edu/Projects/landscape/forestfrag/index.htm

Migratory Birds Based on a preliminary evaluation of the proposed tower's potential impact to migratory birds, this Facility is generally compliant with the USFWS 2013 *Revised Voluntary Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning*. This tower would be less than 200 feet tall (structure is 90 feet tall) and no guy wires or lighting are required. In addition, the proposed development would not result in a significant area of tree removal and would not result in fragmentation of a core forest block (Facility is located within *Patch Forest* or *Edge Forest*). Therefore, the proposed construction activities are not anticipated to result in significant disturbance to breeding birds protected by the Migratory Bird Treaty Act ("MBTA") or to the federally listed Threatened species red knot or northern long-eared bat.

Conclusion

Therefore, the proposed CSB development would not result in a likely adverse effect to any Federal Threatened or Endangered species, including northern long-eared bat, state-listed species or migratory bird species protected under the MBTA. Based on the information contained in this document, CSB respectfully requests a determination from the NEFO that it concurs with these findings that the proposed project is not likely to adversely affect northern long-eared bat.

Sincerely,

Dean Gustafson

Dean Gustafson
Senior Environmental Scientist

Enclosures

Figures

- Site Location Map
- Aerial Photograph
- Forest Fragmentation Map

Legend

- Proposed Facility Location
- Natural Diversity Database (updated Dec 2014)
- Municipal Boundary

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Bridgeport (1984), CT
Map Scale: 1:24,000
Map Date: October 2015

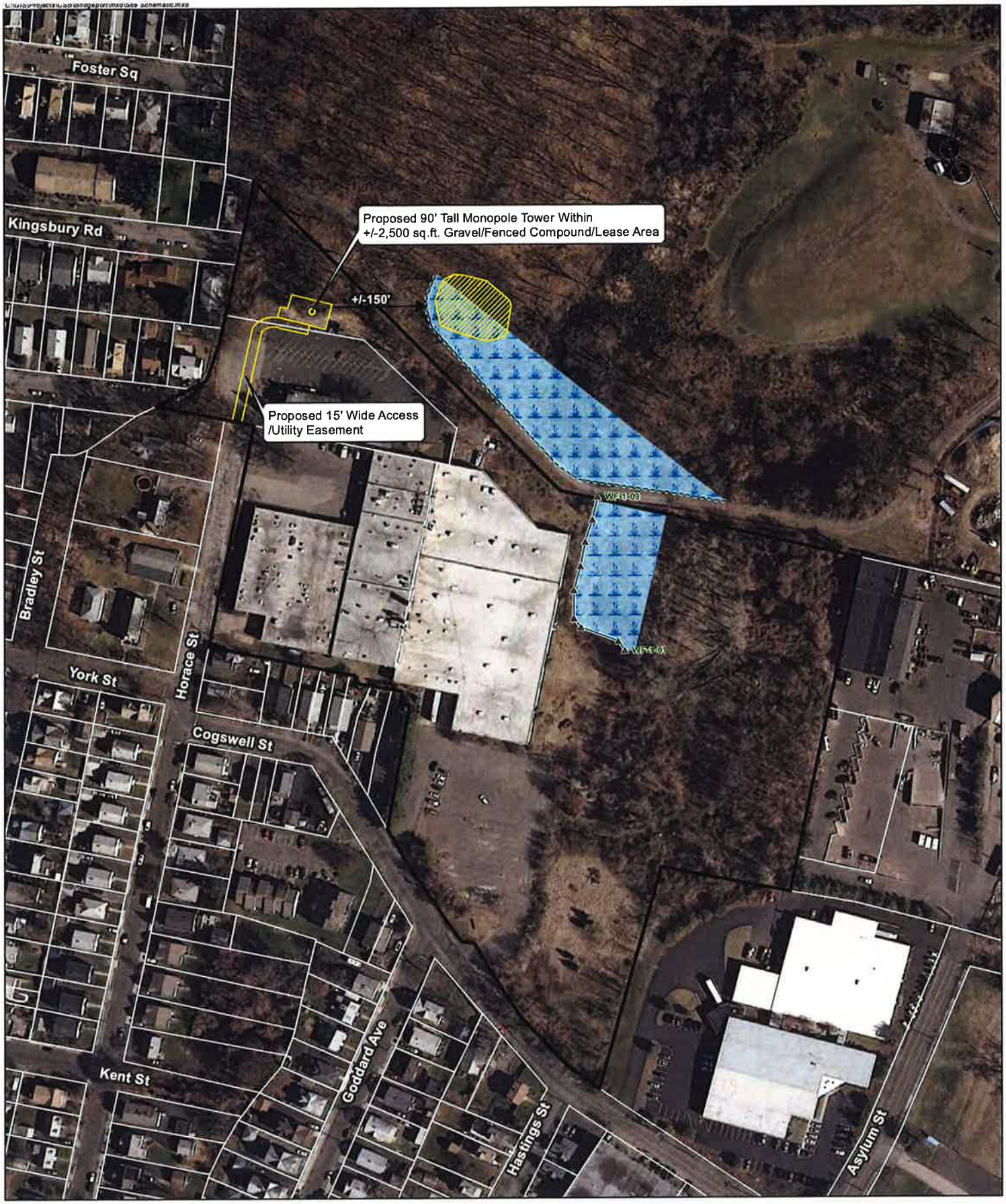
1,000 500 0 1,000 Feet

Attachment A: Overview Map

Proposed Wireless Telecommunications Facility
380 Horace Street
Bridgeport, Connecticut

verizonwireless

ALL-POINTS



Legend

- Proposed Facility Layout
- Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)
- Approximate Vernal Pool Limits
- Wetland Flag
- Delineated Wetland Boundary
- Approximate Wetland Boundary
- Wetland Area

N
W E
S

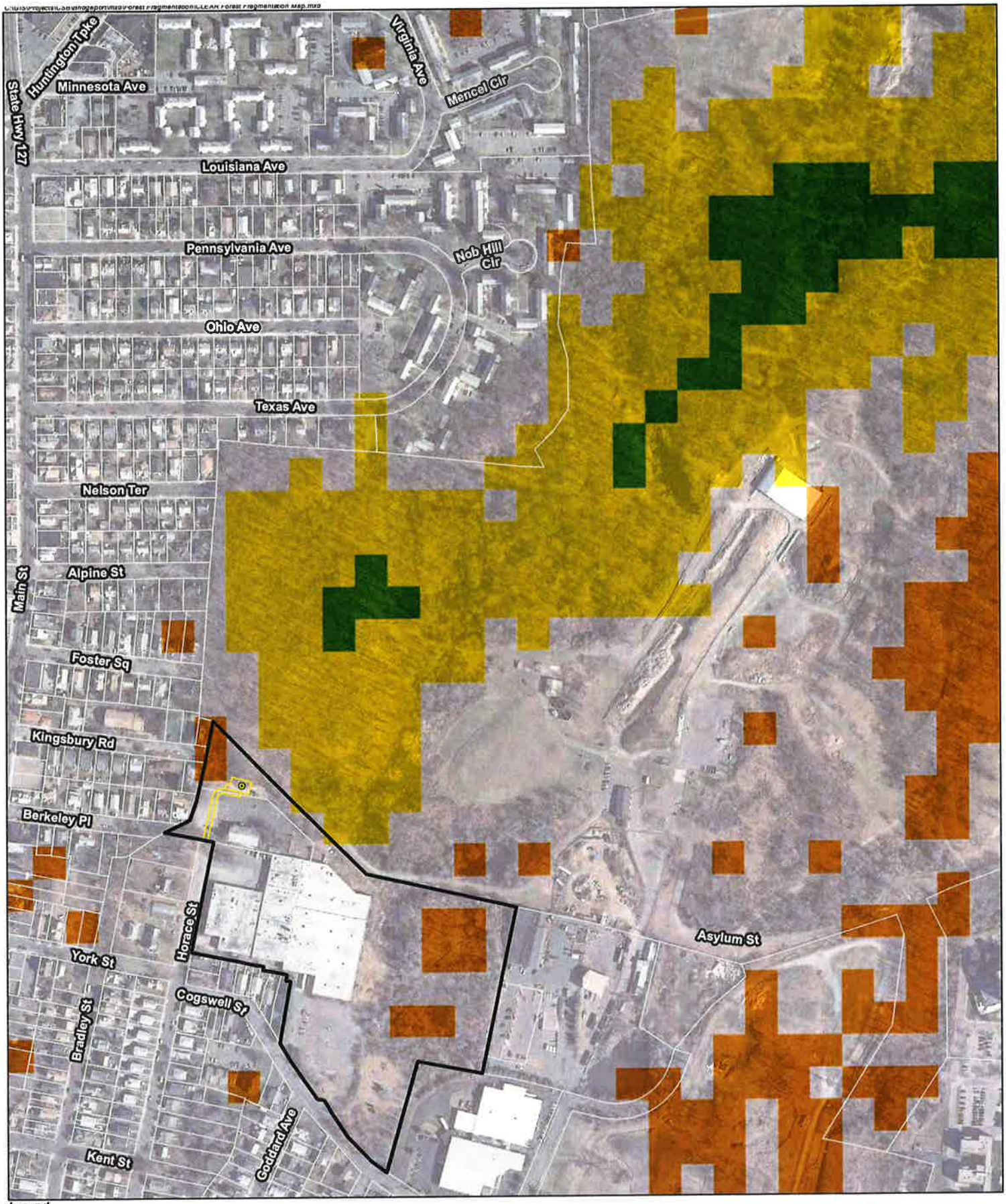
200 100 0 200 Feet

Map Notes:
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale:1 inch = 200 feet
Map Date: October 2015

Aerial Photograph

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

ALL-POINTS



Legend

- Proposed Monopole Tower
- Proposed Facility Layout
- Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)
- Developed
- Patch Forest
- Edge Forest
- Perforated Forest*
- Core Forest (<250 ac)
- Core Forest (250-500 ac)*
- Core Forest (>500 ac)*

400 200 0 400 Feet

Map Notes:
**Legend item not within mapped area*
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale: 1 inch = 400 feet
Map Date: November 2015

Forest Fragmentation Map

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

ALL-POINTS

Project Site Plans

COMMUNICATIONS
BRANFORD, CT

BRIDGEPORT EAST

380 HORACE STREET
BRIDGEPORT, CT 06610

MONOPOLE

VICINITY MAP

VICINITY MAP
SCALE: NTS

PROJECT SUMMARY

SITE NAME:	BRIDGEPORT EAST
SITE ADDRESS:	380 HORACE STREET BRIDGEPORT, CT 03310
ASSESSOR'S PARCEL NO.:	2050-39Y & 2049-39E
CONSTRUCTION TYPE:	MONOPOLE
PROPERTY OWNER:	MDL REALTY, LLC 380 HORACE STREET BRIDGEPORT, CT 06610
STRUCTURE OWNER:	MDL REALTY, LLC 380 HORACE STREET BRIDGEPORT, CT 06610
APPLICANT, LESSEE/LICENSEE, PROJECT OWNER:	CONSTRUCTION SERVICES OF BRANDFORD, LLC 63-3 NORTH BRANDFORD ROAD BRANFORD, CT 06405
PROP. TOWER COORDINATES:	LATITUDE: 41.204331 LONGITUDE: -73.176451 GROUND ELEVATION: 62'± A.M.S.L.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	2
C-1	PARTIAL SITE PLAN	2
C-2	COMPOUND AND ELEVATION PLAN	2
C-3	SITE EVALUATION MAPS	2

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development Surveying
Telecommunications

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

AEG PROJECT NO: NA
DRAWN BY: SMB
CHECKED BY: SNA

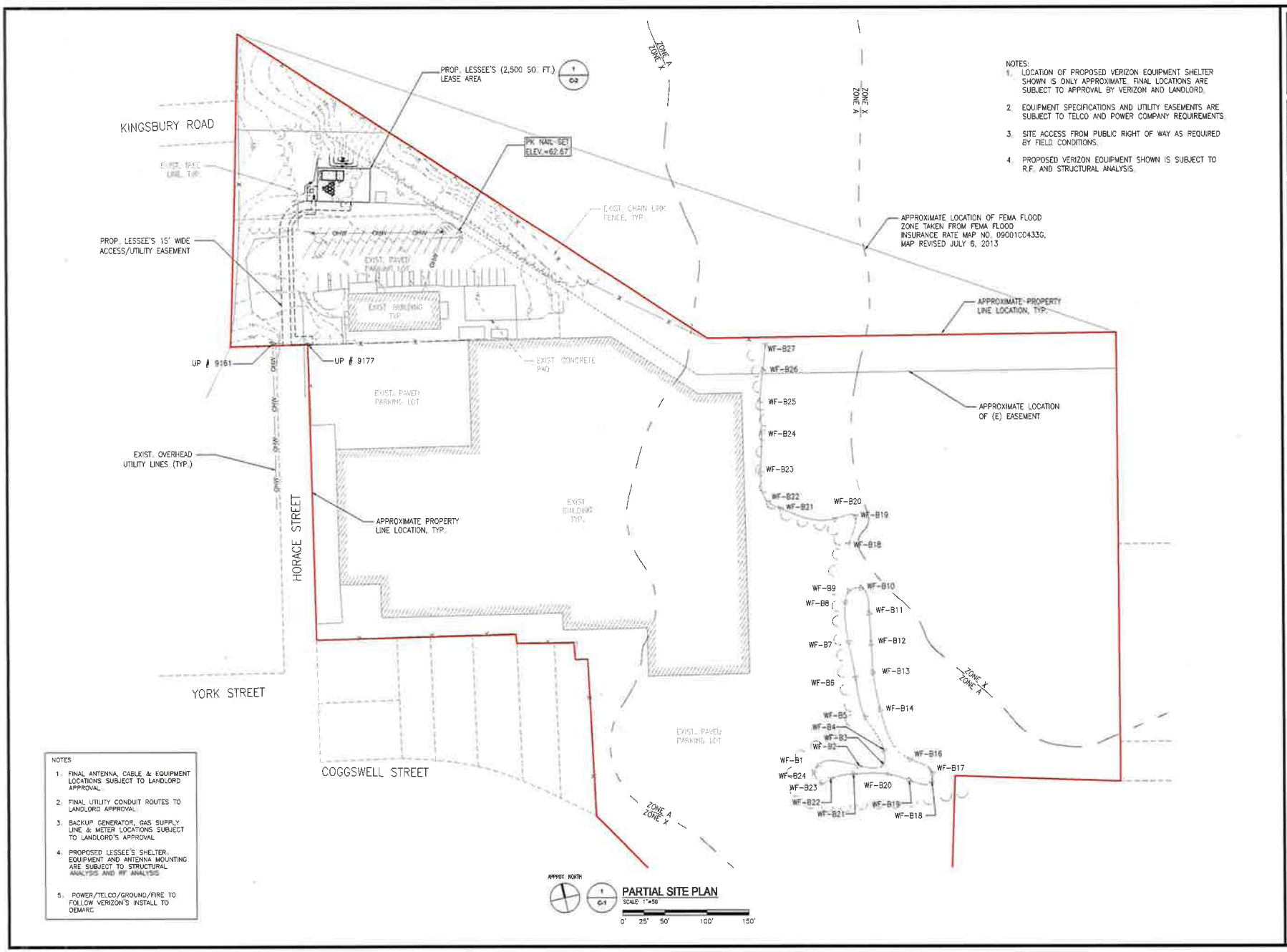
SUBMITTALS

2	7/29/15	REVISION
1	7/15/15	REVISION
0	6/25/15	FOR SUBMISSION

BRIDGEPORT EAST
380 HORACE STREET
BRIDGEPORT, CT 06610

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



NOTES:

1. LOCATION OF PROPOSED VERIZON EQUIPMENT SHELTER SHOWN IS ONLY APPROXIMATE. FINAL LOCATIONS ARE SUBJECT TO APPROVAL BY VERIZON AND LANDLORD.
2. EQUIPMENT SPECIFICATIONS AND UTILITY EASEMENTS ARE SUBJECT TO TELCO AND POWER COMPANY REQUIREMENTS.
3. SITE ACCESS FROM PUBLIC RIGHT OF WAY AS REQUIRED BY FIELD CONDITIONS.
4. PROPOSED VERIZON EQUIPMENT SHOWN IS SUBJECT TO R.F. AND STRUCTURAL ANALYSIS.

NOTES

1. FINAL ANTENNA, CABLE & EQUIPMENT LOCATIONS SUBJECT TO LANDLORD APPROVAL.
2. FINAL UTILITY CONDUIT ROUTES TO LANDLORD APPROVAL.
3. BACKUP GENERATOR, GAS SUPPLY LINE & METER LOCATIONS SUBJECT TO LANDLORD'S APPROVAL.
4. PROPOSED LESSEE'S SHELTER, EQUIPMENT AND ANTENNA MOUNTING ARE SUBJECT TO STRUCTURAL ANALYSIS AND RF ANALYSIS.
5. POWER/TELCO/GROUND/FIRE TO FOLLOW VERIZON'S INSTALL TO DEMARC.

APPROX. NORTH

PARTIAL SITE PLAN

SCALE: 1"=50'

0' 25' 50' 100' 150'

APPROVALS

LANDLORD _____

LEASING _____

R.F. _____

ZONING _____

CONSTRUCTION _____

A/E _____

AEG PROJECT NO:	NA
DRAWN BY:	SMB
CHECKED BY:	SNA

SUBMITTALS

2	7/29/15	REVISION
1	7/15/15	REVISION
0	6/25/15	FOR SUBMISSION

BRIDGEPORT EAST

380 HORACE STREET
BRIDGEPORT, CT 06610

SHEET TITLE

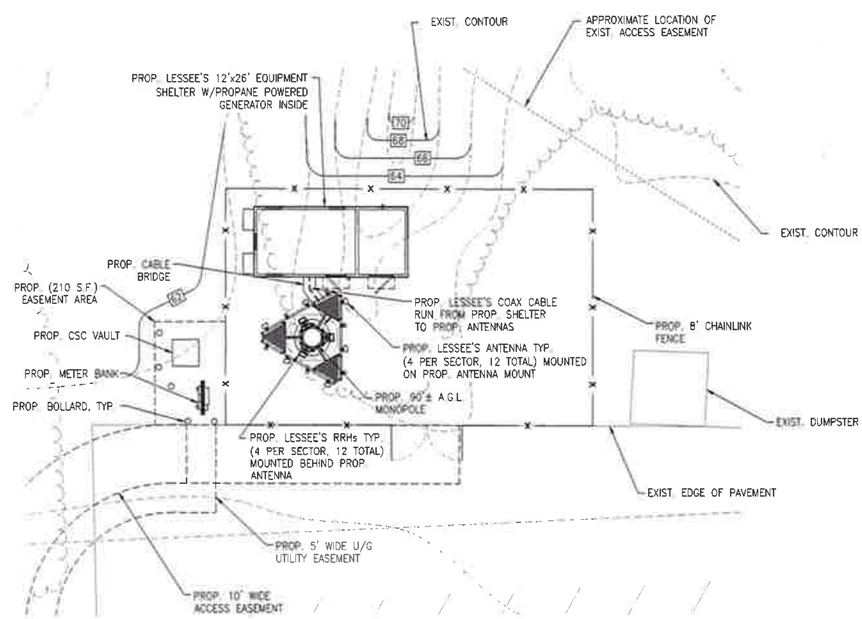
PARTIAL SITE PLAN

SHEET NUMBER

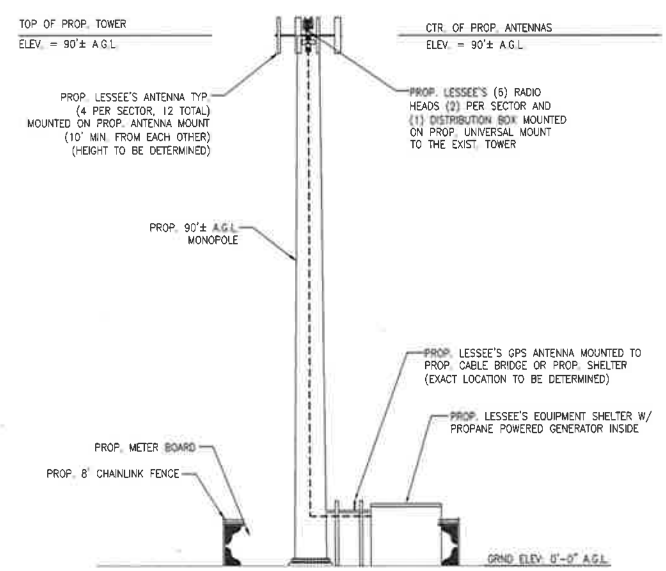
C-1

NOTES

1. FINAL ANTENNA, CABLE & EQUIPMENT LOCATIONS SUBJECT TO LANDLORD APPROVAL.
2. FINAL UTILITY CONDUIT ROUTES TO LANDLORD APPROVAL.
3. BACKUP GENERATOR, GAS SUPPLY LINE & METER LOCATIONS SUBJECT TO LANDLORD'S APPROVAL.
4. PROPOSED LESSEE'S SHELTER, EQUIPMENT AND ANTENNA MOUNTING ARE SUBJECT TO STRUCTURAL ANALYSIS AND RF ANALYSIS.
5. POWER/TELCO/GROUND/FIRE TO FOLLOW VERIZON'S INSTALL TO DEMARC



1 / C-2 **COMPOUND PLAN**
SCALE: 1"=10'
0' 5' 10' 20' 30'



2 / C-2 **ELEVATION**
SCALE: 1"=10'
0' 5' 10' 20' 30'

NOTES:
1. LOCATION OF PROPOSED VERIZON EQUIPMENT SHELTER SHOWN IS ONLY APPROXIMATE. FINAL LOCATIONS ARE SUBJECT TO APPROVAL BY VERIZON AND LANDLORD.
2. EQUIPMENT SPECIFICATIONS AND UTILITY EASEMENTS ARE SUBJECT TO TELCO AND POWER COMPANY REQUIREMENTS.
3. SITE ACCESS FROM PUBLIC RIGHT OF WAY AS REQUIRED BY FIELD CONDITIONS.
4. PROPOSED VERIZON EQUIPMENT SHOWN IS SUBJECT TO R.F. AND STRUCTURAL ANALYSIS.

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development Surveying Telecommunications

APPROVALS

LANDLORD ______
LEASING ______
R.F. ______
ZONING ______
CONSTRUCTION ______
A/E ______

AEG PROJECT NO:	NA
DRAWN BY:	SMB
CHECKED BY:	SNA

SUBMITTALS

2	7/29/15	REVISION
1	7/15/15	REVISION
0	6/25/15	FOR SUBMISSION

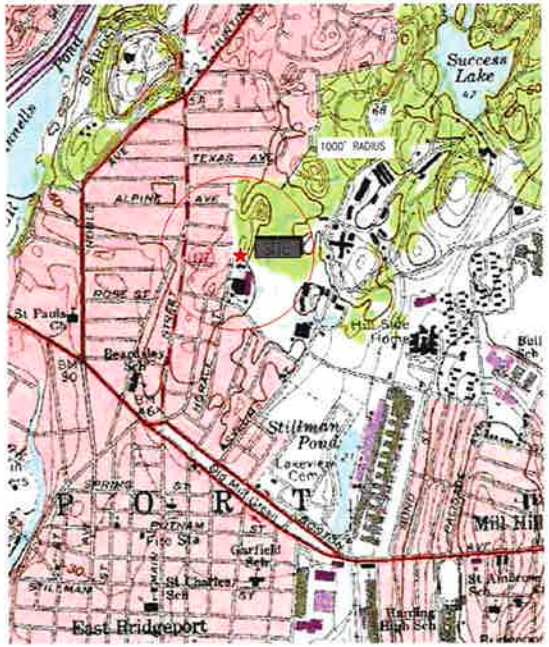
BRIDGEPORT EAST
380 HORACE STREET
BRIDGEPORT, CT 06610

SHEET TITLE
COMPOUND & ELEVATION PLAN

SHEET NUMBER
C-2

NOTES

1. FINAL ANTENNA, CABLE & EQUIPMENT LOCATIONS SUBJECT TO LANDLORD APPROVAL.
2. FINAL UTILITY CONDUIT ROUTES TO LANDLORD APPROVAL.
3. BACKUP GENERATOR, GAS SUPPLY LINE & METER LOCATIONS SUBJECT TO LANDLORD'S APPROVAL.
4. PROPOSED LESSEE'S SHELTER, EQUIPMENT AND ANTENNA MOUNTING ARE SUBJECT TO STRUCTURAL ANALYSIS AND RF ANALYSIS.
5. POWER/TELCO/GROUND/FIRE TO FOLLOW VERIZON'S INSTALL TO DEMARC.



1 / C-3 USGS MAP
SCALE: N.T.S.

2 / C-3 TERRAIN MAP
SCALE: N.T.S.

NOTES:

1. LOCATION OF PROPOSED VERIZON EQUIPMENT SHELTER SHOWN IS ONLY APPROXIMATE. FINAL LOCATIONS ARE SUBJECT TO APPROVAL BY VERIZON AND LANDLORD.
2. EQUIPMENT SPECIFICATIONS AND UTILITY EASEMENTS ARE SUBJECT TO TELCO AND POWER COMPANY REQUIREMENTS.
3. SITE ACCESS FROM PUBLIC RIGHT OF WAY AS REQUIRED BY FIELD CONDITIONS.
4. PROPOSED VERIZON EQUIPMENT SHOWN IS SUBJECT TO R.F. AND STRUCTURAL ANALYSIS.

CSA
AEG ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering • Site Development Surveying
Telecommunications

APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

AEG PROJECT NO:	NA
DRAWN BY:	SMB
CHECKED BY:	SNA

SUBMITTALS

2	7/29/15	REVISION
1	7/15/15	REVISION
0	6/25/15	FOR SUBMISSION

BRIDGEPORT EAST

380 HORACE STREET
BRIDGEPORT, CT 06610

SHEET TITLE

SITE EVALUATION MAPS

SHEET NUMBER

C-3

Site Photographs

Photo 1: View of proposed tower site beyond paved parking lot in forest patch behind light pole and cleared area just to the left of the forest patch, looking northeast.

Photo 2: View of proposed tower site in cleared area and forest patch (left side of photo) looking southeast with German Club and parking lot in background.

Photo 3: View of proposed tower site located behind dumpster enclosure, looking northwest.

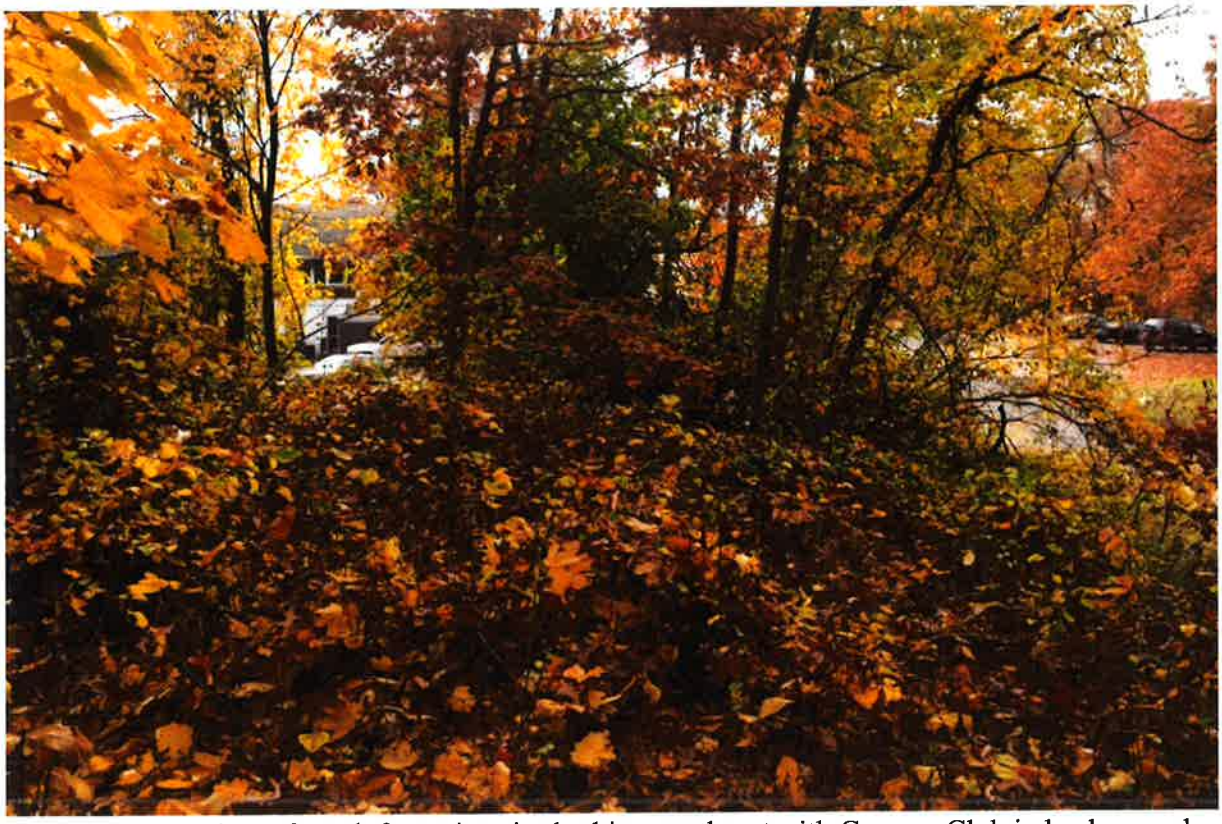


Photo 4: Overview of patch forest interior looking southeast with German Club in background.

USFWS IPaC Threatened and Endangered Species Report

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-0249
Event Code: 05E1NE00-2016-E-00321
Project Name: CSB Bridgeport East

November 07, 2015

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: CSB Bridgeport East

Official Species List

Provided by:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
(603) 223-2541
http://www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-0249
Event Code: 05E1NE00-2016-E-00321

Project Type: COMMUNICATIONS TOWER

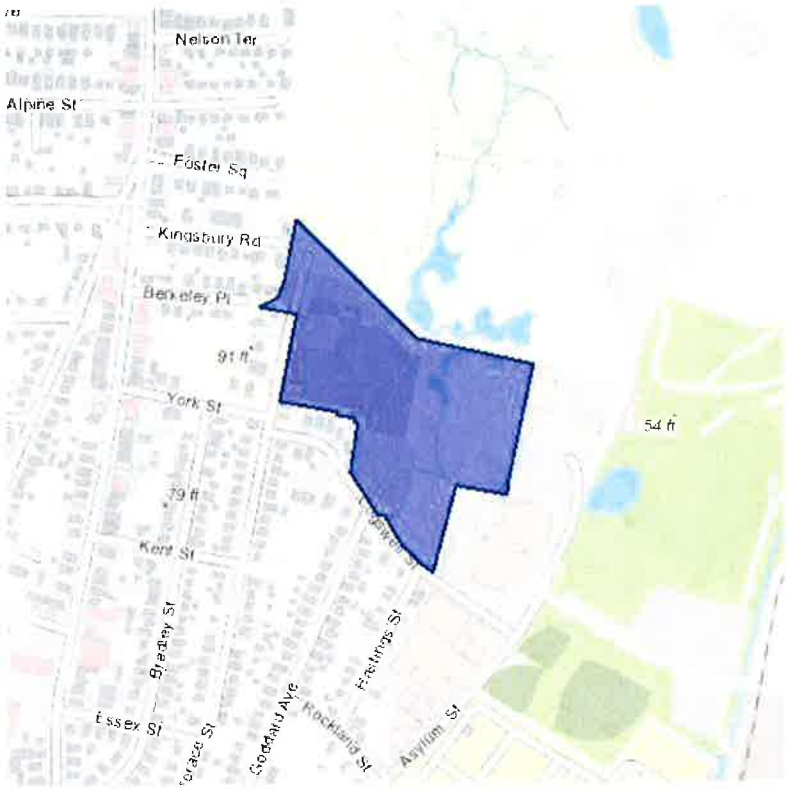
Project Name: CSB Bridgeport East
Project Description: Site Location: 380 Horace Street, Bridgport, Fairfield County, CT. CSB is proposing to build a 90 foot tall Monopole Communications Tower Facility located in the northwest corner of the industrially developed subject property just north of the German Club building.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name: CSB Bridgeport East

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.17371781998737 41.202021360031864, -73.17375786912787 41.20187518777619, -73.17448503907742 41.20197816814489, -73.17482432346011 41.20103545515622, -73.17500316722844 41.201131859596266, -73.17526450201255 41.20133697470632, -73.17552834840073 41.20165203478106, -73.17560519246636 41.201659650336225, -73.17602058944658 41.20213493842922, -73.17589881052648 41.202662914550004, -73.17595544710863 41.20266811086722, -73.17594099859254 41.20272166627867, -73.17621014312301 41.202758398841205, -73.17620387851039 41.20278843124163, -73.17702331055268 41.202910094365784, -73.17677201447374 41.20384865157345, -73.17732561663718 41.203931383586315, -73.17704135539819 41.204039057362166, -73.17696918529867 41.20420032500431, -73.17678121100242 41.20488428600114, -73.17505469879698 41.20357463294409, -73.17336908958394 41.20329429062686, -73.17371781998737 41.202021360031864)))

Project Counties: Fairfield, CT

United States Department of Interior
Fish and Wildlife Service

Project name: CSB Bridgeport East

Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red Knot *(Calidris canutus rufa)*	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: CSB Bridgeport East

Critical habitats that lie within your project area

There are no critical habitats within your project area.

USFWS Federally Listed Endangered and Threatened Species in Connecticut

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN CONNECTICUT

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Fairfield	Piping Plover	Threatened	Coastal Beaches	Westport, Bridgeport and Stratford
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Westport and Stratford
	Bog Turtle	Threatened	Wetlands	Ridgefield and Danbury.
	Red knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hartford	Dwarf wedgemussel	Endangered	Farmington and Podunk Rivers, Muddy Brook, Philo Brook, Stony Brook	South Windsor, East Granby, Suffield, Simsbury, Avon and Bloomfield.
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Litchfield	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Sharon.
	Bog Turtle	Threatened	Wetlands	Sharon and Salisbury.
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Roseate Tern	Endangered	Coastal beaches, islands and the Atlantic Ocean	Westbrook and New London.
	Piping Plover	Threatened	Coastal Beaches	Clinton, Westbrook, Old Saybrook.
	Puritan Tiger Beetle	Threatened	Sandy beaches along the Connecticut River	Cromwell, Portland
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
New Haven	Bog Turtle	Threatened	Wetlands	Southbury
	Piping Plover	Threatened	Coastal Beaches	Milford, Madison and West Haven
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Branford, Guilford and Madison
	Indiana Bat	Endangered	Mines, Caves	
	Red knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
New London	Piping Plover	Threatened	Coastal Beaches	Old Lyme, Waterford, Groton and Stonington.
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	East Lyme and Waterford.
	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Waterford
	Red knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Tolland	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Windham	Sandplain Gerardia	Endangered	Dry, sandy-loam, nutrient-poor soils of sandplain grasslands	Plainfield
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

[1]Migratory only, scattered along the coast in small numbers

- Eastern cougar, gray wolf, Indiana bat, Seabeach amaranth and American burying beetle are considered extirpated in Connecticut.
- There is no federally-designated Critical Habitat in Connecticut.

Agency Documents

- CTDEEP NDDB letter dated July 24, 2015

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

July 24, 2015

Dean Gustafson
All-Points Technology Corporation, P.C.
3 Saddlebrook Dr
Killingworth, CT 06419
dgustafson@allpointstech.com

Project: New Monopole for Construction Services of Branford (CSB) Known as "Bridgeport East"
Located at 380 Horace Avenue in Bridgeport
NDDB Determination No.: 201504834

Dear Dean Gustafson,

I have reviewed Natural Diversity Data Base (NDDB) maps and files regarding the area delineated on the map provided for the proposed New Monopole for Construction Services of Branford (CSB) Known as "Bridgeport East" Located at 380 Horace Avenue in Bridgeport, Connecticut. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site based upon the information contained within the NDDB. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits. This determination is good for one year. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by July 24, 2016.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

ATTACHMENT 6

Legend

- Site
- Aquifer Protection Area (CTDEEP, Sept. 2017)

Aquifer Protection Area Map

Proposed Wireless
Telecommunications Facility
Bridgeport East
380 Horace Street
Bridgeport, Connecticut

verizon

ALL-POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: ESRI World Topo Maps
Map Scale: 1 Inch = 9,000 feet
Map Date: December 2017

9,000 4,500 0 9,000 Feet