WETLAND AND VERNAL POOL IMPACT ANALYSIS

April 11, 2025

The Towers, LLC
750 Park of Commerce Dr., Suite 200
Boca Raton, FL 33487

Re: Site: US-CT-5046, Stonington 2 Telecommunications Facility
327 North Anguilla Road, Stonington, CT
APT Project No. CT754140

On behalf of The Towers, LLC, All-Points Technology Corporation, P.C. ("APT") performed an evaluation of wetland and vernal pool impacts associated with the proposed referenced telecommunication facility ("Facility"). APT understands that the Facility is proposed in the central portion of the agricultural property located at 327 North Anguilla Road in Stonington, Connecticut (the "Property") within an upland hayfield. The following evaluation of potential resource impacts from the proposed Facility is based on field inspections performed on May 17, 2024, January 13, 2025 and April 2, 2025 by APT wetland scientists along with a review of site plans prepared by APT (latest revision date 03/25/25).

Wetland and Vernal Pool Resources

Anguilla Brook, bordering wetlands and a vernal pool are present on the Property along the western and northern property boundaries distant from the proposed Facility. The jurisdictional boundary of the Anguilla Brook riparian wetland system on the Property was identified by APT wetland scientists during the May 17, 2024 and January 13, 2025 inspections. Four potential vernal pool habitats were identified during the January 13, 2025 investigation in the northern portion of the delineated wetland. The identified wetland system consists of a broad forested floodplain system bordering on Anguilla Brook, a perennial watercourse draining south along the western Property boundary. The wetland is separated from bordering upland hayfield areas by a distinct slope break. A forested overstory dominated by red maple with inclusions of swamp white oak, black gum and American elm were observed. A dense shrub layer of sweet pepperbush was present along the wetland boundary with greenbrier also dominant along the transitional edges. Pockets of emergent vegetation were observed primarily along the hayfield edges associated with the active agricultural usage. This wetland complex ranges from areas of permanent inundation associated with the perennial watercourse to areas of seasonal flooding, saturation and permanent saturation. Based on field observations and review of aerial photography, this wetland complex has the potential to support breeding of vernal pool species throughout large portions of the wetland particularly in the northern portion of the wetland system on the Property. Four areas of higher potential for vernal pool habitat were identified during the January 13, 2025 inspection, as noted on the enclosed Wetland Inspection Map. Further investigation during

the spring 2025 vernal pool breeding season to confirm breeding activity by obligate vernal pool species and identify the extent of the breeding areas within this system is discussed below.

During the January 13, 2025 inspection, alternative Facility locations were also explored to determine if a greater separation from residences along North Anguilla Road could be achieved. The three alternate Facility locations in the northwestern portion of the Property are depicted on the enclosed Wetland Inspection Map. It appears that these alternate Facility locations would not be feasible due to the inability to secure access across an existing Eversource ROW that bisects the large agricultural field. Putting aside the access constraint, an evaluation of these alternate Facility locations was performed to assess potential impacts to nearby sensitive wetland resources. Alternate Sites 1, 2, and 3 are all located in close proximity (e.g., 100 feet or less) to the Anguilla Brook wetland system. In addition, all three alternate sites are located within the vernal pool's 750-foot Critical Terrestrial Habitat with Alternate Site 3 located within the vernal pool's 100-foot Vernal Pool Envelope. Due to the proximity to sensitive wetland resources, these alternate sites are not considered feasible or prudent alternative to the preferred Facility location.

During an April 2, 2025 vernal pool survey, one large contiguous cryptic style vernal pool habitat was confirmed to support breeding activity by obligate vernal pool species. Multiple wood frog and spotted salamander egg masses (±200 wood frog and ±75 spotted salamander) were identified during the vernal pool survey with some wood frog egg masses just starting to hatch out. Vernal pool habitat is embedded within the forested wetland system in areas of seasonal inundation ranging from 1-2 feet in depth which appear to endure sufficiently long to allow for full maturation of the egg masses into juveniles.

The attached Vernal Pool Analysis Map depicts the location of wetland and vernal pool resources on the Property in the vicinity of the proposed Facility.

Wetland Impact Evaluation

No direct or secondary wetland impacts are associated with the proposed Facility development activities. Disturbance associated with the Facility construction includes grading, installation of erosion control measures, perimeter fencing, monopole, ground equipment, and utility infrastructure. The Facility will be sited ±355 feet from the nearest wetland boundary located to the northwest and will be separated by an agricultural field. Construction phase protection measures will include the installation and maintenance of erosion controls in accordance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control. By implementing these protective techniques throughout the duration of construction, potential adverse impacts to wetland resources which are considered remote due to the significant separation distance, will be mitigated. As a result, additional construction phase wetland protection measures are not warranted.

Potential long-term secondary impacts to wetland resources associated with the operation of this Facility are minimized due to its unstaffed nature and negligible traffic associated with maintenance visits that typically require one visit every two to three months. When taking in context with the existing high level of human activity associated with the current agricultural use of the Property which includes activities in relatively close proximity to wetlands, the addition of this Facility would not result in any measurable secondary impacts to nearby resources. Therefore, the proposed Facility will not result in a likely adverse impact to the Property's wetland resources.

Physical Impact to Vernal Pool and Surrounding Terrestrial Habitat

This section details a recognized scientific method for analyzing the potential impact a project may have on a particular vernal pool and its surrounding upland habitat.

Construction and operation of the Facility would not result in direct physical impact to the identified vernal pool. Please refer to the enclosed Vernal Pool Analysis Map. It is widely documented that vernal pool dependent amphibians are not solely reliant upon the actual vernal pool, which is limited to use for breeding and egg/larval development; they require surrounding upland forest habitat for most of their adult lives. Accepted studies recommend conservation of the majority of adjacent terrestrial habitat (optimally forested) up to 750 feet from the vernal pool edge for obligate pool-breeding amphibians (Calhoun, Klemens, 2002; "BDP").[1] In order to evaluate potential impacts to the vernal pools and their surrounding upland habitat, the vernal pools occupying the Subject Property were assessed using the USACE New England District's *Vernal Pool Best Management Practices* ("BMPs") (January 2015)[2]. Collectively, these methodologies assess vernal pool ecological significance based on two (2) parameters: 1) biological value of the vernal pool and, 2) conditions of the critical terrestrial habitat. The biological rating is based on the presence of state-listed species and the abundance and diversity of vernal pool indicator species. The terrestrial habitat is assessed based on the integrity of the vernal pools' two conservation zones: vernal pool envelope ("VPE" – within 100 feet of the pool's edge) and the critical terrestrial habitat ("CTH" – 100-750 feet of the pool's edge). Intact forest represents the highest value, or optimal, habitat within both of these conservation zones to support breeding opportunities for the various obligate vernal pool indicator species that rely on forested habitat (e.g., wood frog and spotted salamander).

In addition, the BMPs establish the concept of "directional corridors" (identified herein as "Migratory Corridors"). Identification of Migratory Corridors allows a project to evaluate potential impacts to optimal pool-breeding amphibian habitat that focuses on conserving the most essential habitats that link breeding pools, forested wetlands, and forested uplands. These interrelated habitats form essential Migratory Corridors at a landscape scale generally confined within the CTH. The location of Migratory Corridors is established through an evaluation of both wetland and terrestrial habitat structure qualities (e.g., vegetative cover types, width of vegetated buffer, soil surface moisture, thickness of duff layer, abundance of cover objects, etc.) that determines the locations of "Suitable Non-Breeding Habitat" and "Non-Habitat" in proximity to the vernal pool. Migratory Corridors occur in areas that link vernal pools and Suitable Non-Breeding Habitat (both forested wetland and upland habitats). Non-habitat areas such as developed areas, maintained lawn, and agricultural fields do not support Migratory Corridors due to the lack of sufficient vegetative conditions that are often associated with higher levels of predation and human activity, which can result in direct mortality.

Based on the observations of two (2) obligate vernal pool species breeding within the identified vernal pool and non-breeding habitat exceeding 25%, the vernal pool is classified as a Tier II pool. The Tier II rating is due to the biological value (e.g., two obligate species in moderate density) and the CTH has a greater than 25% developed condition. Pools with 25% or less developed areas in the critical

[1] Calhoun, A.J.K. and M.W. Klemens. 2002. Best Development Practices (BDPs): Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. WCS/MCA Technical Paper No. 5.
[2] https://www.nae.usace.army.mil/Portals/74/docs/regulatory/VernalPools/VPBMPsJan2015.pdf

terrestrial habitat are identified as having high priority for conservation by maintaining less than 25% development within this terrestrial habitat, including site clearing, grading and construction.

The vernal pool evaluated in this assessment was rated based on these criteria for both the existing condition and the proposed condition (e.g., proposed Facility development) to determine if the proposed development would result in a reduction in the tier rating system or reduce the terrestrial habitat integrity below the critical 75% non-development criterion. As previously discussed, the vernal pool currently has a lower conservation priority rating of Tier II. The results of this analysis show that the proposed development will not result in further degradation of the existing tier rating or terrestrial habitat integrity of the vernal pool since the Facility is located beyond the CTH. The Facility will be located more than 1,000 feet south of the closest vernal pool habitat. In addition, due to the large expanse of agricultural field that separates the vernal pool from the Facility location, the Facility would not intercept potential Migratory Vectors since the field provides suboptimal terrestrial habitat for vernal pool species. Principal Migratory Vectors for the vernal pool would occur to the north and west where forested wetland and upland habitat occurs.

Considering the conservation status of the Tier II vernal pool, proposed development occurring in a previously degraded/Non-Habitat area (agricultural field), and significant distance separating the Facility from the vernal pool, the proposed Facility would not result in short-term or long-term impact existing amphibian productivity.

In addition, possible short-term impact to herpetofauna associated with the vernal pool due to possible encounters with migrating and basking individuals that may intercept the proposed Facility development footprint during construction are unlikely due to the significant ±1,000-foot separation distance. Therefore, a resource protection plan that would be implemented during construction is not warranted for this Facility location.

Hydraulic Alterations

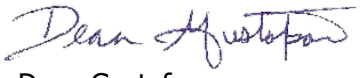
Land-use changes (i.e., clearing, increases in impervious surface) can increase surface runoff in the watershed of a vernal pool. Direct inputs of stormwater flow into a pool may produce sudden water level increases in a short period of time and may lengthen the duration of flooding (hydroperiod). Diversion of stormwater flows past a pool may have the opposite effect of decreasing water levels and shortening the pool's hydroperiod. In addition, stormwater features that create temporary pools of water can result in a biological "sink" as breeding amphibians deposit eggs into a water body without the necessary hydraulic period to allow for successful development of the eggs into juveniles.

The proposed development will not alter existing surface or subsurface flow conditions or directions. Site clearing and grading activities will not de-water the nearby vernal pools or alter surface water drainage patterns associated with the pools. Impervious surfaces associated with the proposed Project have been minimized with the use of a gravel surface within the Facility compound to support infiltration and local groundwater recharge. Therefore, the proposed development will not alter the hydrology of the nearby vernal pools. In addition, no stormwater management features (temporary or permanent) are proposed that would result in creation of a temporary "decoy" pool and "sink" features, which could potentially affect breeding amphibians intercepted on their migration to the nearby vernal pool. These potential concerns are also mitigated by the considerable ±1,000-foot separation distance between the Facility and the vernal pool resource.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.



Dean Gustafson
Senior Wetland Scientist

Enclosures

Maps

- Wetland Inspection Map
- Vernal Pool Analysis Map

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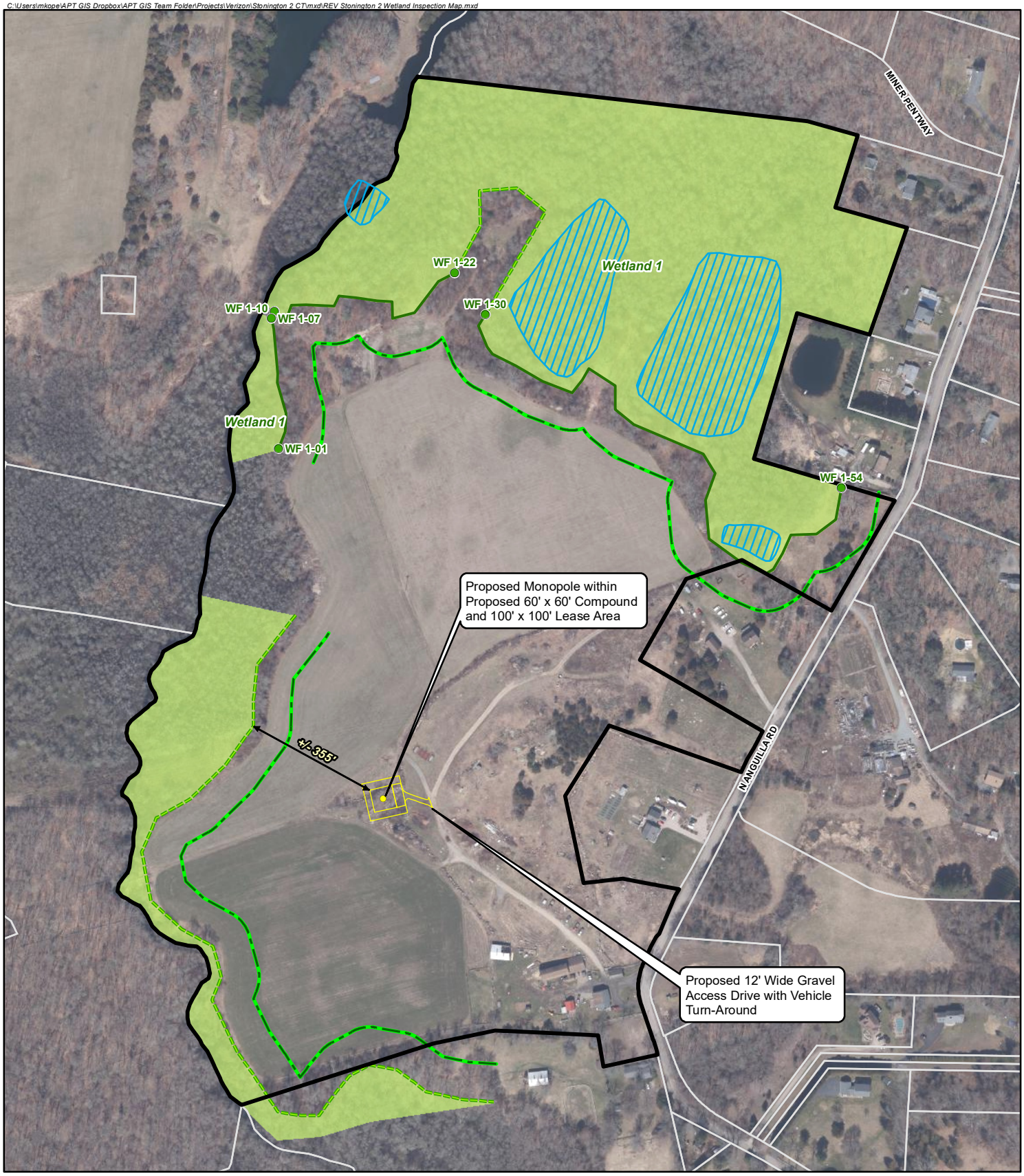

Legend

- Proposed Monopole
- Proposed Site Layout
- Wetland Flag
- 100' Upland Review
- Approximate Wetland Boundary
- Delineated Wetland Boundary
- Approximate Wetland
- Potential Vernal Pool
- Subject Property
- Approximate Parcel Boundary

N

350 175 0 350 Feet

Wetland Inspection Map

Proposed Wireless Telecommunications Facility
Stonington 2 CT
327 North Anguilla Road
Pawcatuck, Connecticut

verticalbridge
verizon
ALL-POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: 2023 Aerial Photograph (CTECO)
Map Scale: 1 inch = 350 feet
Map Date: February 2025

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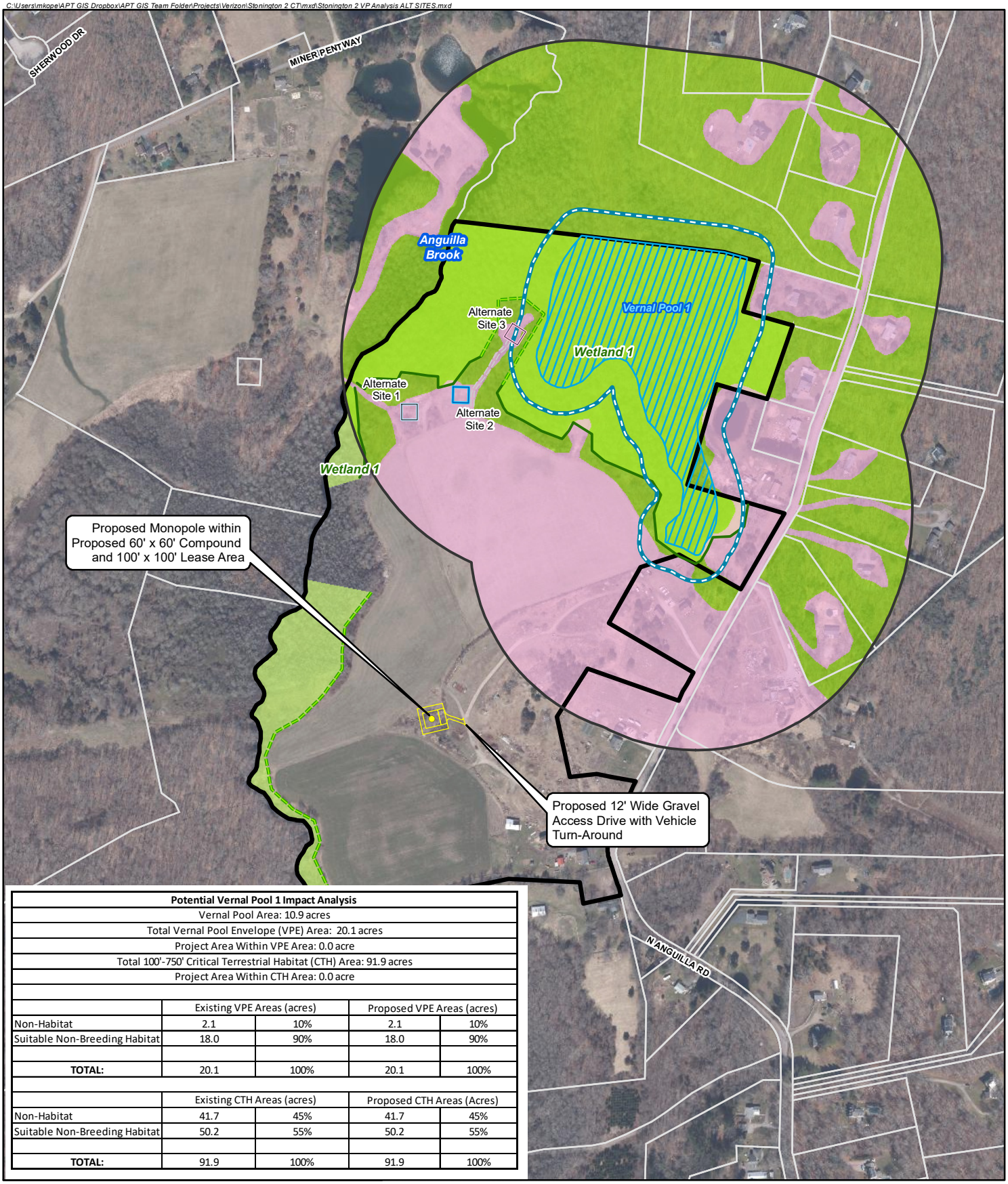

Potential Vernal Pool 1 Impact Analysis				
Vernal Pool Area: 10.9 acres				
Total Vernal Pool Envelope (VPE) Area: 20.1 acres				
Project Area Within VPE Area: 0.0 acre				
Total 100'-750' Critical Terrestrial Habitat (CTH) Area: 91.9 acres				
Project Area Within CTH Area: 0.0 acre				
	Existing VPE Areas (acres)		Proposed VPE Areas (acres)	
Non-Habitat	2.1	10%	2.1	10%
Suitable Non-Breeding Habitat	18.0	90%	18.0	90%
TOTAL:	20.1	100%	20.1	100%
	Existing CTH Areas (acres)		Proposed CTH Areas (Acres)	
Non-Habitat	41.7	45%	41.7	45%
Suitable Non-Breeding Habitat	50.2	55%	50.2	55%
TOTAL:	91.9	100%	91.9	100%

Legend

- Proposed Monopole
- Proposed Site Layout
- Alternate Site 1
- Alternate Site 2
- Alternate Site 3
- Existing Farm Road
- Approximate Wetland Boundary
- Delineated Wetland Boundary
- Approximate Wetland Area
- 100' Vernal Pool Envelope (VPE)
- 100'-750' Critical Terrestrial Habitat (CTH)
- Vernal Pool
- Subject Property
- Approximate Parcel Boundary

Habitat Areas

- Non-Habitat
- Suitable Non-Breading Habitat

N

500 250 0 500 Feet

Vernal Pool Analysis Map

Proposed Wireless Telecommunications Facility
Stonington 2 CT
327 North Anguilla Road
Pawcatuck, Connecticut

verticalbridge
verizon
ALL-POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: 2023 Aerial Photograph (CTECO)
Map Scale: 1 inch = 500 feet
Map Date: April 2025