FINAL NEPA SCREENING REPORT

Telecommunications Facility 101 Red Brook Road Mashpee, Massachusetts 02649



SUBMITTED TO: Blue Sky Towers II, LLC 352 Park Street, Suite 106 North Reading, Massachusetts 01864

PREPARED BY: Lucas Environmental, LLC 500A Washington Street Quincy, Massachusetts 02169

REPORT DATE: July 31, 2018





July 31, 2018

Blue Sky Towers II, LLC Attn: Sean Gormley 352 Park Street, Suite 106 North Reading, Massachusetts 01864

Re: Final National Environmental Policy Act Screening Report

Site #: MA-5112

Site Name: Mashpee Fire Station #2

101 Red Brook Road, Mashpee, MA 02649

Dear Mr. Gormley,

Attached please find the Final National Environmental Policy Act (NEPA) Screening Report for the proposed telecommunications facility at 101 Red Brook Road in Mashpee, Massachusetts. The purpose of the NEPA Report is to evaluate this property for potential environmental and historical impacts specified by the Federal Communications Commission (FCC) in 47 CFR 1.1307, and general industry standards. The Permitting Drawings, prepared by ProTerra Design Group, LLC, dated September 27, 2017 and revised through June 12, 2018 were reviewed for the purposes of this screening.

A new telecommunications facility and access road are proposed on a portion of the parcel identified as Map 104, Lot 2. The property is an approximate 37-acre parcel which contains the Mashpee Fire Station #2, parking lot, stormwater structures, and undeveloped woodlands. The woodlands can be characterized as a mixed oak-white pine forest. The property is bounded to north, east, and south by forested areas, and to the west by the Mashpee Fire Station.

The proposed telecommunications facility will be located within a wooded area east of the existing fire station. The proposed facility will consist of panel antennas mounted onto the top of a proposed 150-foot tall monopole. The tower has been designed to accommodate a six-foot tall optional lighting rod, which would bring the total height of the structure to 156 feet. Associated telecommunications equipment will be located outside at the base of the structure within a 70-foot by 70-foot compound surrounded by a six-foot tall chain link fence, while a pad-mounted transformer will be located just outside the compound. The lease area for the facility is approximately 100-foot by 100-foot. Lease areas for future equipment shelters will be located within the fenced compound. Access to the site will be achieved through a 20-foot wide access and utility easement, extending from the existing parking lot of the Mashpee Fire Station. The utility easement will allow for a service connection to the proposed utilities along the edge of the fire station.

The NEPA Checklist and NEPA Summary Report for this facility have been enclosed. Based upon the results of this NEPA screening assessment, it appears that the telecommunications facility, as currently proposed, will not adversely impact any of the criteria as outlined in 47 CFR 1.1307(a) items (1) through (8) and the preparation of an Environmental Assessment (EA) is not required.



This NEPA Screening Report was prepared according to the terms and conditions as authorized. There are no intended or unintended third party beneficiaries to this Report, unless specifically named. Lucas Environmental, LLC is an independent contractor and not an employee of either the property owner or the project Proponent. Compensation was not based on the findings or recommendations made in this Report. This screening and evaluations are based on the project specifications and plans provided to Lucas Environmental, LLC and referenced in this Report. If the design or location of the proposed telecommunications facility changes, please contact Lucas Environmental, LLC as additional review or consultation may be required.

Please contact me if you have any questions about the Report or the attached information enclosed, or if you require further assistance.

Sincerely,

LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, PWS, CWS Environmental Consultant/Soil Scientist

T: 617.405.4140 F: 617.405.4465

E-mail: cml@lucasenvironmental.net

Enclosures

cc: ProTerra Design Group, Thomas Johnson



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SECTION I – NEPA CHECKLIST



NEPA Land Use Screening Checklist						
Site ID: Mashpee Fire Station #2 MA-5112		Site Address: 101 Red Brook Road Mashpee, MA 02649	Site Type (choose one): Raw Land Tower Colocation Other Colocation Tower Replacement			
	CCC NEPA Category See 47 CFR § 1.1307)	Federal, State, or Local Agency Contacted	No Adverse Impact	Potential Adverse Impact	Exempt from Review	NPA Applies
1.	Designated Wilderness Areas	National Park Service U.S. Forest Service Bureau of Land Mgmt.	I			
2.	Designated Wildlife Preserves	National Park Service U.S. Forest Service Bureau of Land Mgmt.	Ø			
3.	Threatened or Endangered Species, and Critical Habitats	U.S. Fish and Wildlife Service (USFWS) – New England Field Office	Ø			
4.	Historic Place	State Historic Preservation Officer (SHPO) Tribal Historic Preservation Officer (THPO)	SHPO Consultation Completed			Collocation Agreement Applies: Nationwide Agreement: Exclusion Applies:
5.	Indian Religious Sites	American Indian Tribes Bureau of Indian Affairs Tribal Historic Preservation Officer (THPO)	Tribal Consultation Completed	Conditions to avoid impacts proposed; EA not required by Tribes.		Collocation Agreement Applies: Nationwide Agreement: Exclusion Applies:
6.	Floodplain	Federal Emergency Management Agency (FEMA)	Ø			
7.	Surface Features, Wetlands, and Floodways	USFWS NWI Maps U.S. Army Corps of Engineers (USACE)	Ø			
8.	High Intensity White Lights	Federal Aviation Administration (FAA)				
	Signature:Company:Lucas Environmental, LLC Print Name:Christopher M. LucasDate:					



SECTION II – NEPA SUMMARY REPORT





FCC NEPA Summary Report (47 CFR Subpart 1, Chapter 1, Sections 1.1301-1.1319)

Site ID: Site Address:		Site Type (choose one):	
Mashpee Fire Station #2	101 Red Brook Road Mashpee, MA 02649	☑ Raw Land	
MA-5112		☐ Tower Colocation	
		☐ Other Colocation	
		☐ Tower Replacement	

§1.1307 (a) (1) OFFICIALLY DESIGANTED WILDERNESS AREA

Is the antenna structure located in an officially designated wilderness area?

According to a review of the Department of Agriculture's list of wilderness areas (http://www.wilderness.net/index.cfm?fuse=NWPS), the Project Site is not located in an officially designated wilderness area. In addition, according to Lucas Environmental's review of available on-line resources, the Project Site is not located in a National Park (www.nps.gov/gis), a designated Scenic and Wild River (http://www.rivers.gov/massachusetts.php), a land area managed by the Bureau of Land Management (http://www.blm.gov/wo/st/en.html), or within ½ mile of a National Scenic Trail as identified by the National Park Service (http://www.nps.gov/ncrc/programs/nts/nts trails.html).

§1.1307 (a) (2) OFFICIALLY DESIGNATED WILDLIFE PRESERVE

Is the antenna structure located in an officially designated wildlife preserve?

According to Lucas Environmental's review of available on-line resources, the Project Site is not located in an officially designated wildlife preserve (http://www.fws.gov/refuges/whm/wilderness.html). The Project Site is located within a U.S. Fish & Wildlife Service National Wildlife Refuge (http://www.fws.gov/refuges/zipCodeLocator/index.cfm), identified as the Mashpee National Wildlife Refuge. In a letter dated, October 26, 2017, Lucas Environmental contacted the USFWS office in Sudbury, Massachusetts to determine if the project would impact or otherwise adversely affect the National Wildlife Refuge. No response was received; however, in a phone conservation with Tom Eagle at the USFWS, Mr. Eagle stated that that the tower is proposed within an acquisition boundary and is not located on land owned by the USFWS. As such, he has no concerns for this facility and an Environmental Assessment (EA) is not required. Correspondence is attached in Appendix E.





§1.1307 (a) (3) LISTED, THREATENED OR ENDANGERED SPECIES/DESIGNATED CRITICAL HABITATS

Will the antenna structure likely affect threatened or endangered species or designated critical habitats? (Ref. 50 CFR Part 402)

According to a review of available on-line resources, no federally identified threatened or endangered species habitats or designated critical habitats are located within the Project Site.

Lucas Environmental, LLC reviewed the U.S. Fish & Wildlife Service (USFWS) website (http://www.fws.gov/endangered/; http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm) to identify potential threatened or endangered species within Barnstable County, Massachusetts Based upon this review, four species were identified within Barnstable County, three of which include the piping plover (*Charadrius melodus*), roseate tern (*Sterna dougallii*), and red knot (*Calidris canutus*); however, these species are found along the coast and ocean areas, which are not present on or near the site, therefore impacts are not anticipated for these three species.

The northern long-eared eat (*Myotis septentrionalis*) was also identified within Barnstable County. The general habitat of the northern long-eared bat includes mines and caves during the winter and a variety of forested habitats during the summer. The site is undeveloped with forested areas suitable for summer habitat available for this species. Approximately 12,300 square feet of tree clearing is proposed and the remaining forested areas will remain intact.

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) maintains a database of rare, threatened and endangered species in Massachusetts. A review of the current MassGIS data layer for the Massachusetts Natural Heritage Atlas (effective August 1, 2017) under the NHESP indicates that no portion of the Study Area is located within Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species. It is noted that the site was previously identified as Estimated and Priority Habitat for Rare Species according to the October 1, 2008 edition of the Massachusetts Natural Heritage Atlas. Correspondence with NHESP confirms the site is not currently mapped as Priority or Estimated Habitat. No Certified Vernal Pools under the jurisdiction of the Wetlands Protection Act Regulations (310 CMR 10.00 et seq.) or the Massachusetts Endangered Species Act (321 CMR 10.00 et seq.) occur within or near the subject property. According to available data from NHESP, there are no known northern long-eared bat hibernacula within one mile of the project site.

The Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form was submitted to the USFWS on October 26, 2017. This project proposes tree removal; however any resulting incidental take of the bat is not prohibited by the final 4(d) rule. No comments were received from the USFWS and therefore presumed that the determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the Northern Long-Eared Bat are fulfilled through the USFWS January 5, 2016, Programmatic Biological Opinion. Appendix D contains USFWS correspondence and NHESP information.



NEPA SUMMARY REPORT

Following the "Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions that May Affect Northern Long-Eared Bats," and based on the characteristics of the Project Site and vicinity, it is LE's opinion that:

- This project is excepted from incidental taking prohibitions in the final 4(d) rule;
- The project will not significantly affect any federally listed species (based on data reviewed, NHESP information, and USFWS correspondence);
- Minimal forested habitat will be impacted;
- The referenced facility is not located in an officially designated wilderness area, and;
- The referenced facility is not located in an officially designated wildlife preserve.

Additionally based upon the proposed design monopole and height (at/under 200 feet AGL) it is unlikely that the proposed telecommunications installation would adversely impact migratory bird species protected under the Migratory Bird Treaty Act and the Endangered Species Act. Therefore, Lucas Environmental concludes that the proposed project is unlikely to affect threatened or endangered species.

§1.1307 (a) (4) SECTION 106 CONSULTATION

Will the antenna structure affect districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP)? (Ref. 36 CFR Part 800 regulations implementing Section 106 of the National Historic Preservation Act).

Lucas Environmental, LLC reviewed the proposed project plans against the Exclusions of the *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process* (NPA). Lucas Environmental, LLC concluded that the proposed telecommunications facility does not meet any of the Exclusions listed in Section III of the NPA. Therefore, consultation with the Massachusetts Historical Commission (MHC) – State Historic Preservation Officer (SHPO) is required.

In a letter dated May 7, 2018, Lucas Environmental, LLC submitted the New Tower Submission Packet to the MHC SHPO for their review and comment. On June 5, 2018, the MHC SHPO concurred with our finding of "No Adverse Effect". The MHC determined that this project is unlikely to affect significant historic or archaeological properties. Correspondence is attached in Appendix B.

In the unlikely event that unanticipated historic properties, cultural artifacts, archeological deposits, or human remains are inadvertently encountered during the proposed construction and associated excavation activities, the Proponent must halt activities immediately and contact the appropriate local officials and state agencies, in accordance with Federal and State regulations (36 CFR 800.13(b)).





§1.1307 (a) (5) INDIAN RELIGIOUS SITES

Will the antenna structure affect Indian religious site(s)?

Based on the requirements of the *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process* (NPA), Tribal consultation is required for this project because the proposed tower construction did not meet Exclusions A, B, C or F of the NPA.

Lucas Environmental, LLC completed the Tower Construction Notification System (TCNS) on October 6, 2017. On October 13, 2017, the FCC's TCNS sent the project information to Tribes listed on their database who have interest in the state in which the project is planned. Additionally, Lucas Environmental, LLC submitted follow-up requests and information packets for comment to each of the Tribes indicated by the TCNS to have a potential interest in the area of the project. Tribal communication to date for this project is summarized in the following table and included in Appendix C.

Tribe Name	Initial Notification (via TCNS or E-mail)	Response to Initial Contact	Contact Attempts	Response to Final Attempt	Action Recommended	
Narragansett Indian Tribe	10-13-17 (TCNS)	Requested Consultation	10-26-17 12-19-17 01-11-18 03-06-18 03-29-18	FCC Referral 04/16/18	FCC Authorized Proponent to Proceed through Referral 05/09/18	
Keweenaw Bay Indian Community	10-13-17 (TCNS)	Requested Consultation	10-26-17	11-14-17	No Properties of Interest	
Lac Vieux Desert Band	10-13-17 (TCNS)	Requested Consultation	10-26-17	10-31-17	No Adverse Effect	
Wampanoag Tribe of Gay Head Aquinnah	10-13-17 (TCNS)	No Response	10-26-17 12-19-17 01-11-18 01-29-18 +Numerous Phone Calls	FCC Referral 05/03/18	Cleared through FCC Referral 05/30/18	
Mashpee Wampanoag Tribe	10-13-17 (TCNS)	Requested Consultation	10-26-17 11-20-17 12/14/17 01/11/18 01/29/18 04/23/18 05/10/18 06/14/18	07/24/18	Authorized to Proceed with Recommendations & Conditions	



NEPA SUMMARY REPORT

Tribe Name	Initial Notification (via TCNS or E-mail)	Response to Initial Contact	Contact Attempts	Response to Final Attempt	Action Recommended
Bad River Band	10-13-17 (TCNS)	No Response w/in 30 days of TCNS	N/A	N/A	No Interest

The Mashpee Wampanoag Tribe have indicated that there is potential to have adverse effects due to the undisturbed soils on the site; however, have stated that they do not require an Environmental Assessment (EA) if the Proponent has a Tribal CRM on-site during all earthmoving activities. Blue Sky Towers II, LLC has agreed to the CRM, at their cost; therefore an EA is not required for tribal concerns.

In the unlikely event that unanticipated Historic Properties, cultural artifacts, archeological deposits, or human remains are inadvertently encountered during the proposed construction and associated excavation activities, the Proponent must halt activities immediately and contact the appropriate tribal governments, local officials and state agencies, in accordance with Federal and State regulations (36 CFR 800.13(b)).

§1.1307 (a) (6) FEMA 100 YEAR FLOODPLAIN

Will the antenna structure be located in a floodplain? (Ref. Executive Order 11988 and 40 CFR Part 6, Appendix A)

According to the July 16, 2014 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for Barnstable County, Massachusetts, Map Number 25001C0753J, the Study Area is located within Zone X which is classified as an area determined to be outside the 0.2% annual chance floodplain (500-year flood). Therefore, the Study Area is not located within the 100-year floodplain or Bordering Land Subject to Flooding (See Appendix F).

§1.1307 (a) (7) IMPACTS TO SURFACE FEATURES

Will construction of the antenna structure involve significant change in surface features (e.g. wetlands, deforestation, or water diversion)? (Ref. Executive Order 11990 and 40 CFR Part 6, Appendix A)

Based upon Lucas Environmental's assessment of the site, there are no documented wetlands or watercourses within 100 feet of the proposed telecommunications facility. According to a review of the Federal Wetlands Map (Appendix G), there are no wetland resource areas near the proposed work areas for the access roadway. A freshwater review of the U.S. Department of the Interior, Fish & Wildlife Service's National Wetland Inventory (NWI) Map (available online at http://wetlandsfws.er.usgs.gov/) indicates that the Project Site is not located near any wetland resource areas. Permits from the U.S. Army Corps of Engineers under the Massachusetts Programmatic General Permit or from the Massachusetts Department of Environmental Protection under the Wetlands Protection Act would not be required.



NEPA SUMMARY REPORT

The proposed construction plans call for the removal of mature trees, however the project footprint is minimal in nature and it is not anticipated that the installation will result in significant deforestation. According to the proposed permitting plans and on-site observations, surface water body diversion will not occur.

§1.1307 (a) (8) HIGH INTENSITY WHITE LIGHTS/RESIDENTIAL ZONING

Is the antenna structure located in a residential neighborhood and required to be equipped with high intensity white lights?

According to client representatives and site plans, the proposed installation will not include high intensity white lights and is not located within a residential neighborhood.

§1.1307 (a) (9) HUMAN RADIO FREQUENCY (RF) EXPOSURE

Will the antenna structure equal or exceed total power (of all channels) of 2000 Watts ERP (3280 EIRP) and have antenna located less than 10 meters above the ground? Will the rooftop antenna project equal or exceed total power (of all channels) of 2000 Watts ERP (3280 EIRP)?

An evaluation to determine whether radiofrequency (RF) emissions standards are met was not included as part of this NEPA Screening Report. Lucas Environmental, LLC understands that client representatives will evaluate the project to ensure compliance with applicable RF standards.

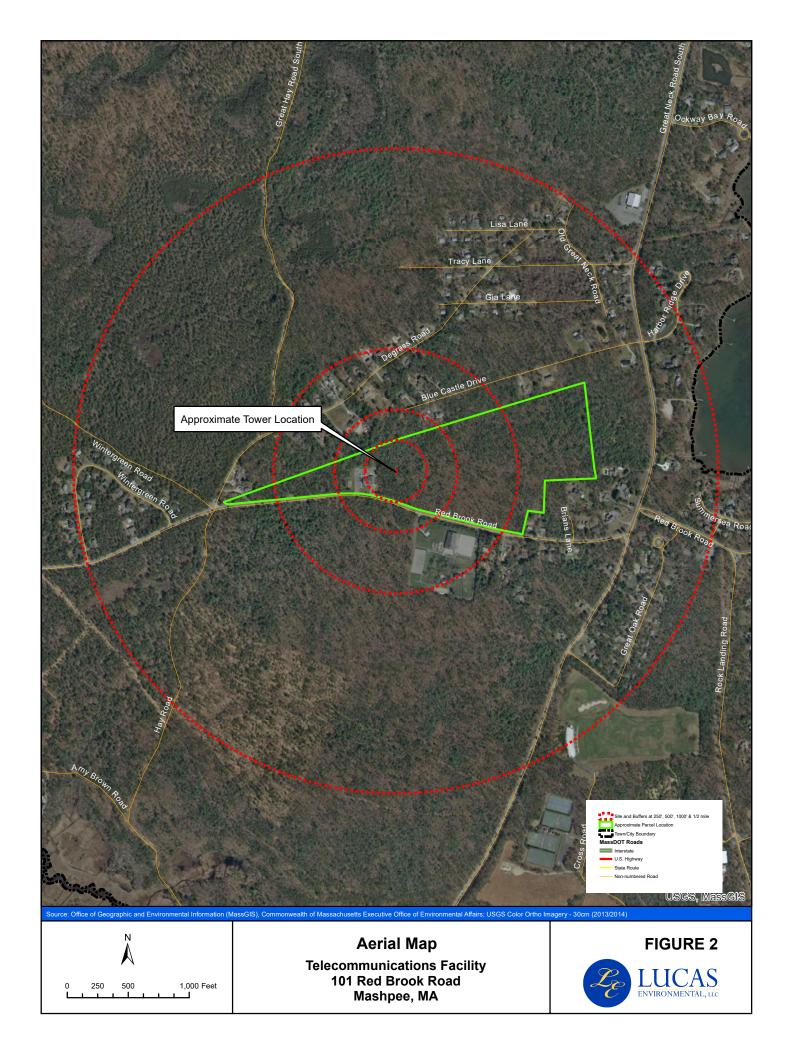


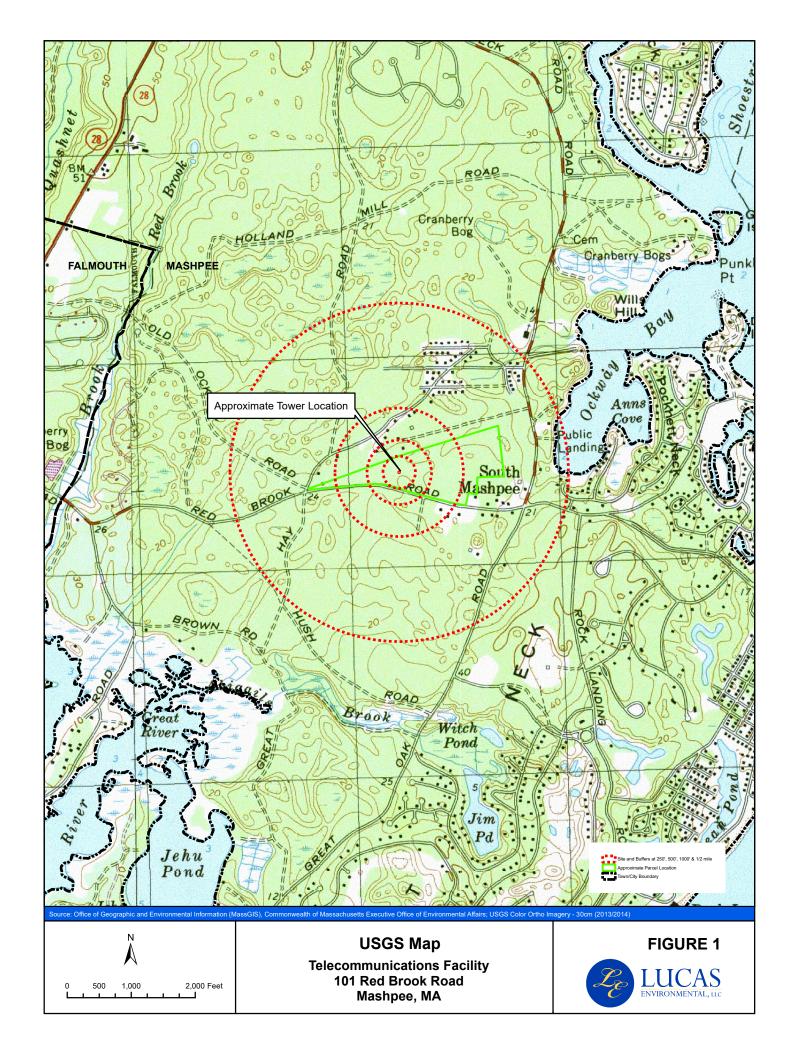
SECTION III – APPENDICES





FIGURES, PLANS & MAPS





BLUE SKY TOWERS II, LLC

SITE NAME: MASHPEE FIRE STATION #2 **SITE NUMBER: MA-5112 ADDRESS: 101 RED BROOK ROAD** MASHPEE, MA 02649

DRAWING INDEX					
SHEET	DESCRIPTION	REVISION			
T-1	TITLE SHEET	1			
C-1	ABUTTERS PLAN	1			
C-2	EXISTING CONDITIONS	1			
A-1	AERIAL & USGS MAPS	1			
A-2	COMPILED PLOT PLAN	1			
A-3	OVERALL SITE PLAN	1			
A-4	COMPOUND PLAN & ELEVATION	1			
SE-1 TO SE-2	SITING ELEVATIONS	1			
D-1	DETAILS	1			
CA-1 TO CA-4	TENANT DETAILS	1			
EC-1	EROSION CONTROL PLAN & DETAILS	1			

GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER & APPLICANT REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
- PLANS FOR PERMITTING PURPOSES ONLY. NOT FOR CONSTRUCTION. ALL UNDERGROUND LITHLY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL DIG-SAFE (888) 344-7233 72-HOURS PRIOR TO ANY EXCAVATION
- THIS SHEET WAS ORIGINALLY PRINTED TO ANSI D (22"x34") WITH 1" MARGINS. PRINTING TO ANSI B (11"x17") WILL RESULT IN A HALF-SCALE (1:2) SHEET SET WITH 1/2" MARGINS. CONFIRM ALL SCALED DISTANCES WITH GRAPHICAL SCALES SHOWN HEREIN.
- NEW CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: BUILDING CODE: MASSACHUSETTS STATE BUILDING CODE (780 CMR) 9TH EDITION (IBC) AND AMENDMENTS

ELECTRICAL CODE: NEC 2017 WITH MASSACHUSETTS AMENDMENTS (527 CMR 12.00)

VICINITY MAP LISA LN BLUE CASTLE DR RED BROOK RD PLACE RI LOCUS AMY BROWN RD SCALE: $1" = 1000' \pm (22 \times 34)$ 1" = 2000' + (11x17)

TENANT INFORMATION

verizon

SITE NUMBER: 138554 SITE NAME: NEW SEABURY MA

CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS 118 FLANDERS ROAD THIRD FLOOR WESTBOROUGH, MA 01581

TENANT INFORMATION

T · · Mobile ·

SITE NUMBER: 4HY0603

T-MOBILE NORTHEAST, LLC NORTON, MA 02766 FAX: (508) 286-2893

PROJECT INFORMATION

RAW LAND WIRELESS COMMUNICATIONS FACILITY SITE TYPE:

PROPOSED 150' TALL MONOPOLE WITH SCOPE OF WORK:

70'x70' FENCED COMPOUND WITHIN 100'x100' LEASE AREA.

MASHPEE FIRE STATION #2

SITE NAME:

SITE NUMBER: MA-5112

SITE ADDRESS: 101 RED BROOK ROAD MASHPEE, MA 02649

ASSESSOR'S TAX ID#: MAP 104 LOT 2

ZONING DISTRICT(S):

RESIDENTIAL DISTRICT (R-3)
WIRELESS FACILITY OVERLAY DISTRICT
GROUNDWATER PROTECTION OVERLAY DISTRICT

70° 29' 03.08"± W (SURVEY 1A)

LATITUDE: 41° 35' 02.89"± N (SURVEY 1A)

(P) FIFVATION: 28.3'+

LONGITUDE:

DATUM: NAD83/NAVD88

N/F TOWN OF MASHPEE PROPERTY OWNER:

16 GREAT NECK ROAD NORTH MASHPEE, MA 02649

APPLICANT:

BLUE SKY TOWERS II, LLC 352 PARK STREET SUITE 106

NORTH READING, MA 01864

SITE ENGINEER: PROTERRA DESIGN GROUP, LLC

4 BAY ROAD BUILDING A; SUITE 200 HADLEY, MA 01035 TEL: (413) 320-4918

NORTHEAST SURVEY CONSULTANTS 116 PLEASANT STREET SURVEYOR:

SUITE 302 EASTHAMPTON, MA 01027

TEL: (413) 203-5144

Ш E <u>a</u> RMIT Ш

DESIGN GROUP, LLC 4 Bay Road Building A; Suite 200 Hadley, MA 01035 CONSULTANTS:

ProTerra

Ph: (413)320-4918

#2

П, MA BLUE SKY 1 352 PARK 3 SUITE 106 NORTH REA TE NAME: WASHPEE FI.
ADDRESS: 101 RED B.
MASHPEE, MA (LC

BLUE S TOWERS I

JMM/TEJ CHECK: SCALE: SEE PLAN JOB NO.: 17-063 SHEET TITLE:

TITLE SHEET

T-1

ProTerra DESIGN GROUP, LLC

> 4 Bay Road Building A; Suite 200 Hadley, MA 01035 (413) 320-4918

CONSULTANTS:

NORTHEAST SURVEY CONSULTANTS

Easthampton, MA 01027 (413) 203-5144 northeastsurvey.com

m

II,

TOWERS STREET SKY TOWER. PARK STREET 106 H READING,

BLUE S 352 PA SUITE 1 NORTH

BLUE SKY 3

MA

3 ROAD SITE NAME. WASHPEE FII SITE NUMBER: M ADDRESS: 101 RED B WASHPEE, WA

DATE: 06/11/2018 DRAWN: CRC

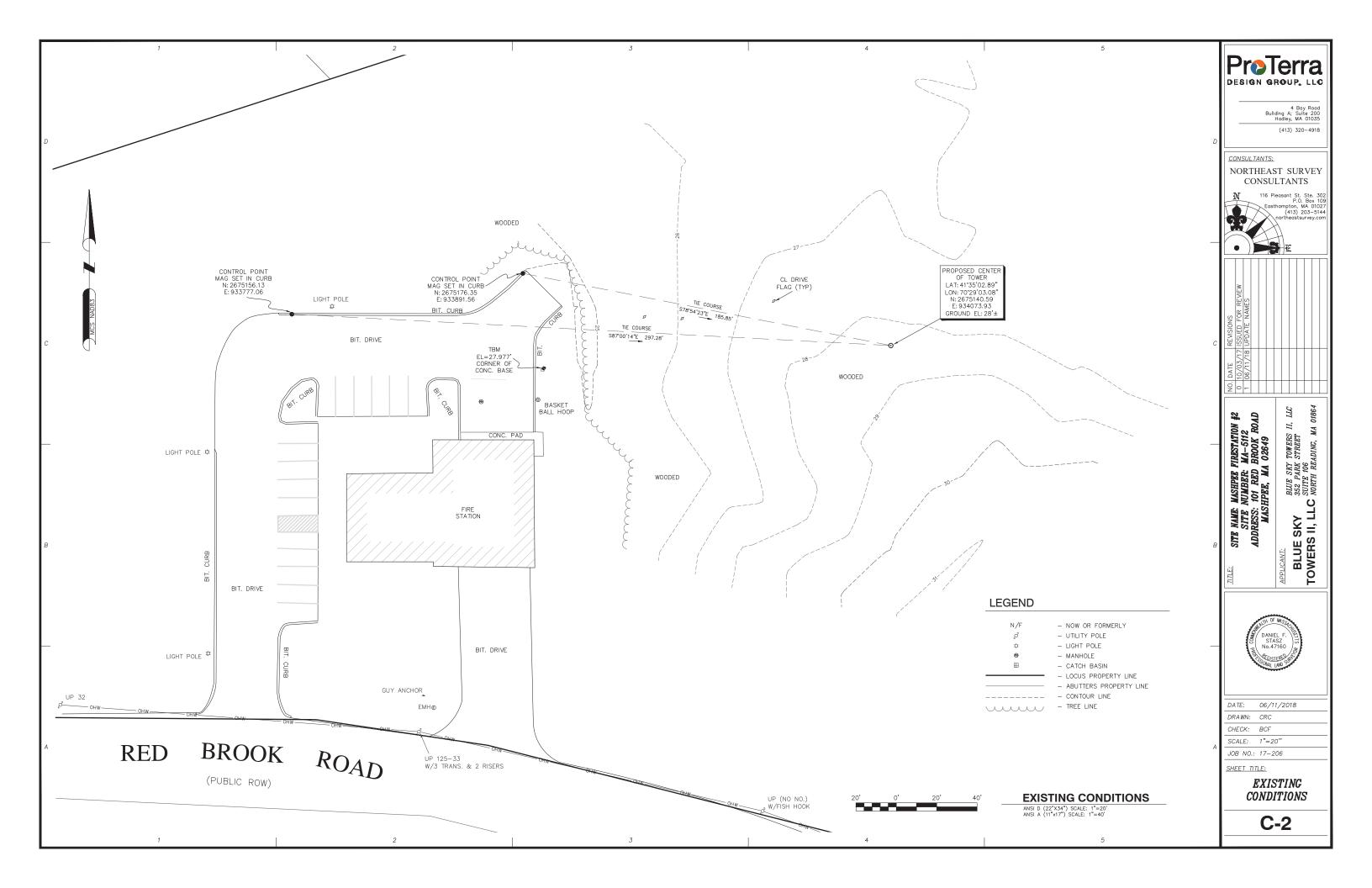
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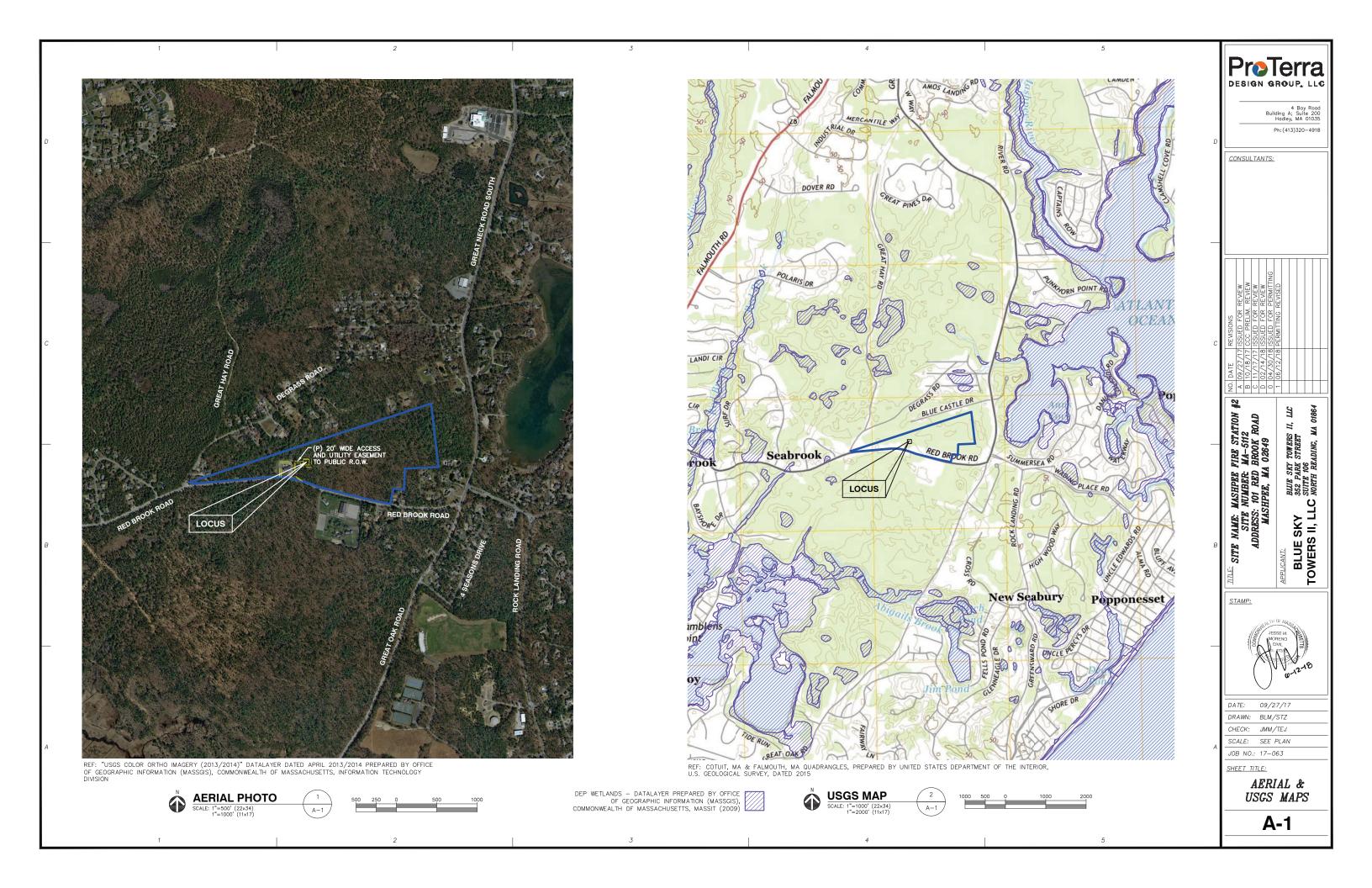
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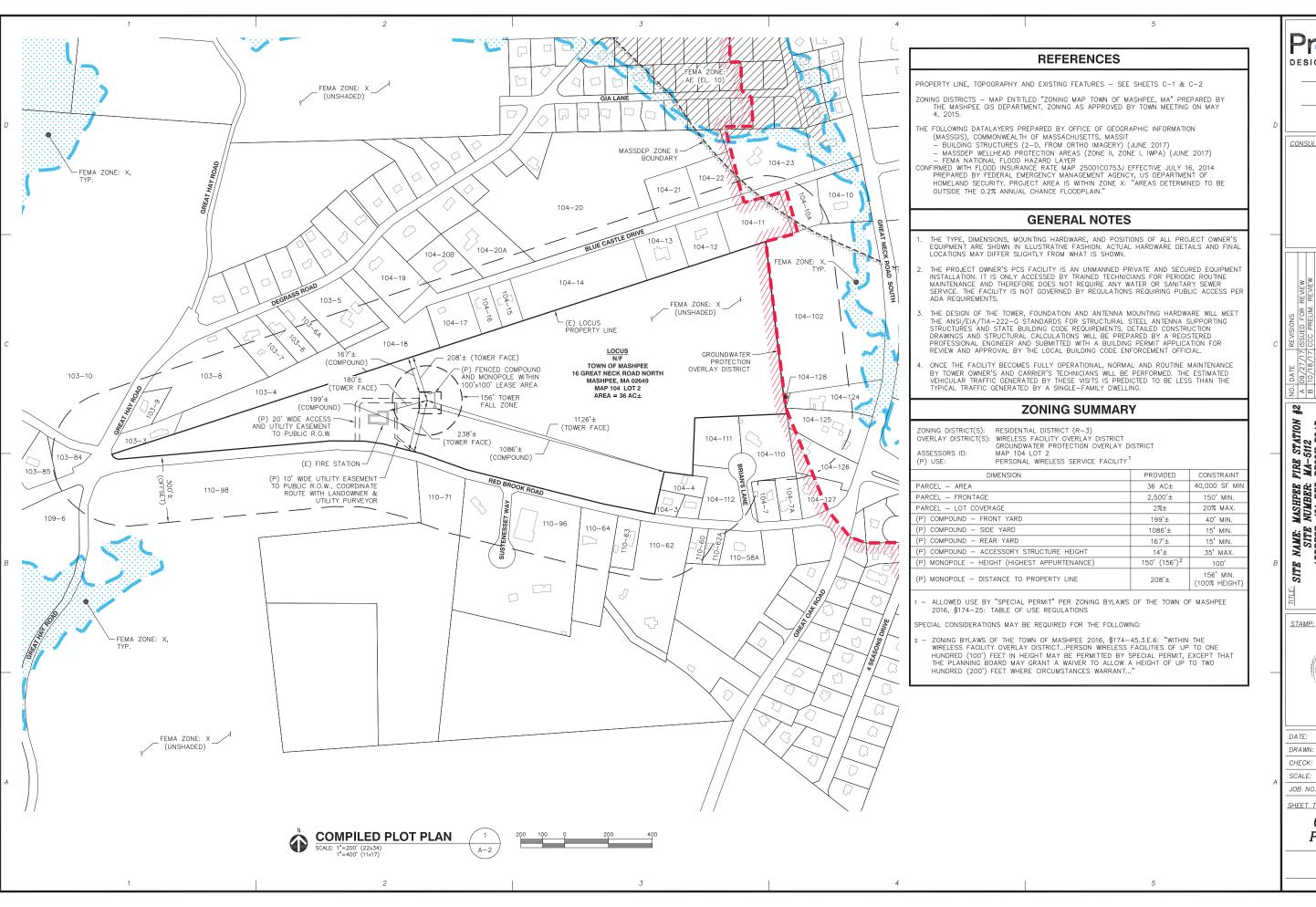
SHEET TITLE:

ABUTTERS PLAN

C-1







ProTerra DESIGN GROUP, LLC

> 4 Bay Road Building A; Suite 200 Hadley, MA 01035 Ph: (413)320-4918

CONSULTANTS:

STATION 5112 OK ROAD 11, TOWERS STREET SKY ARK 106 1 REA TE NAME: WASHPEE FI SITE NUMBER: M ADDRESS: 101 RED B WASHPEE, MA (BLUE S 352 PA SUITE 1 SKY ≡, ⊑ BLUE S TOWERS I

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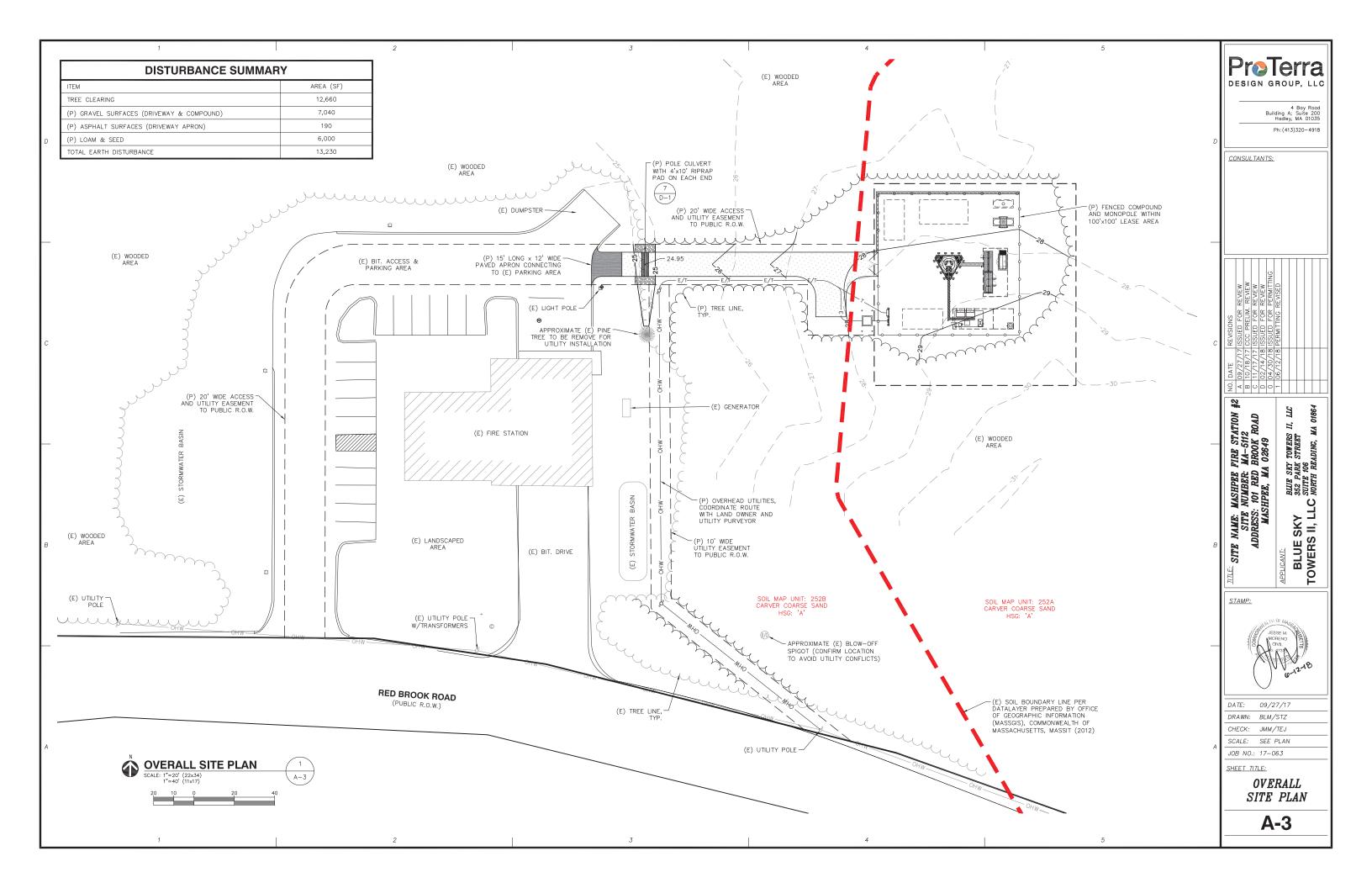
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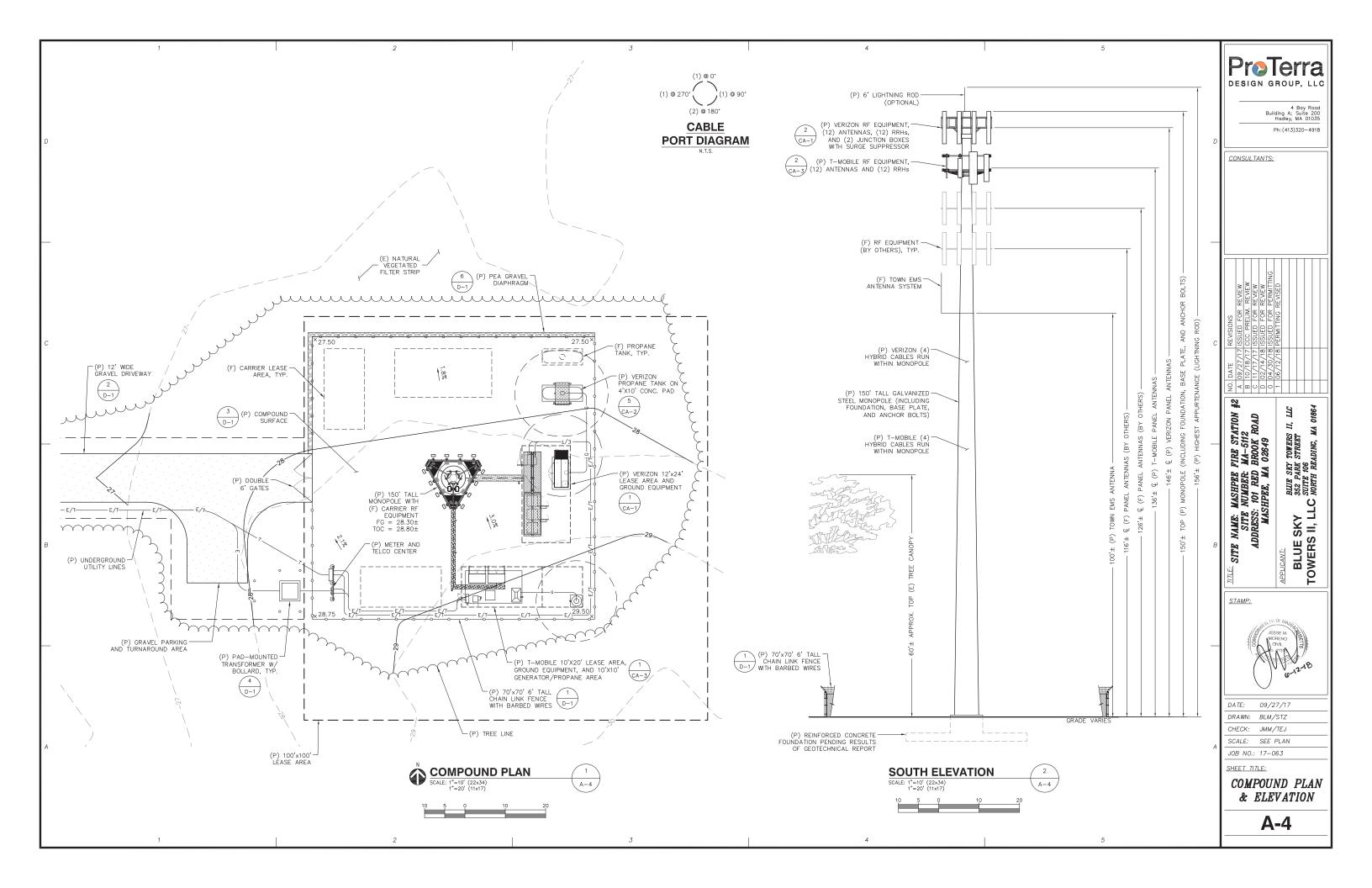


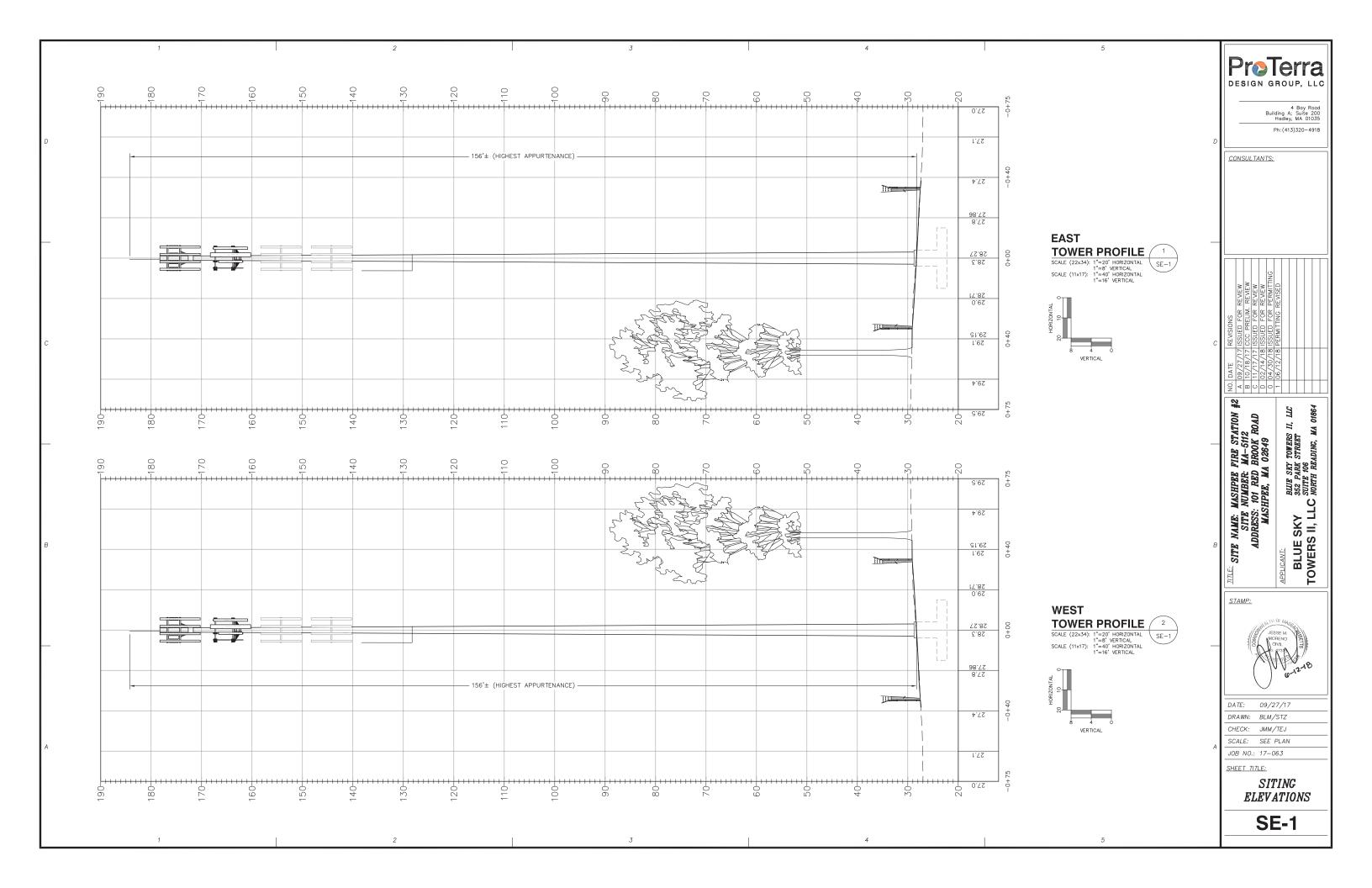
DATE: 09/27/17 DRAWN: BLM/STZ JMM/TEJ CHECK: SCALE: SEE PLAN JOB NO.: 17-063 SHEET TITLE:

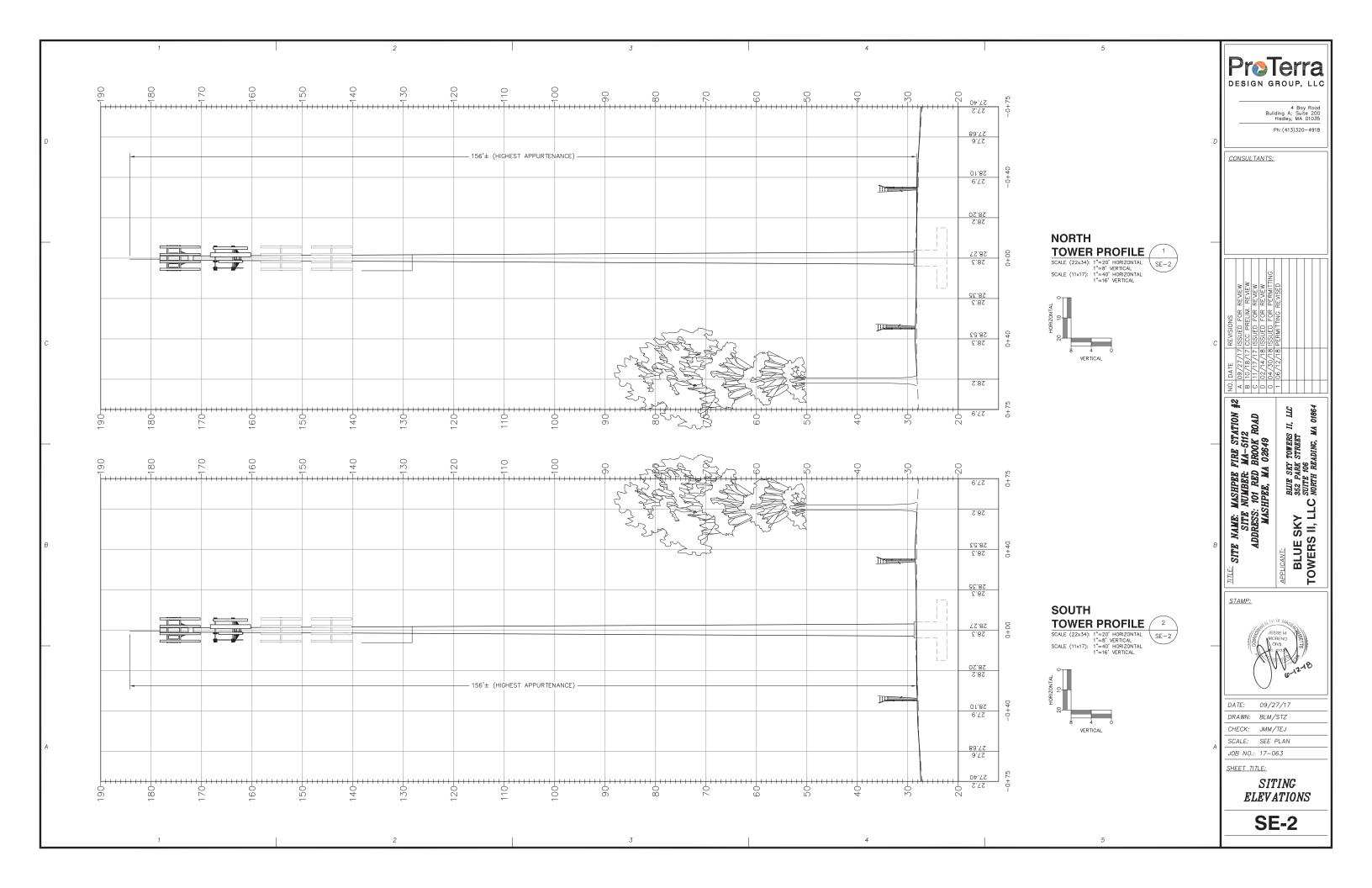
COMPILED PLOT PLAN

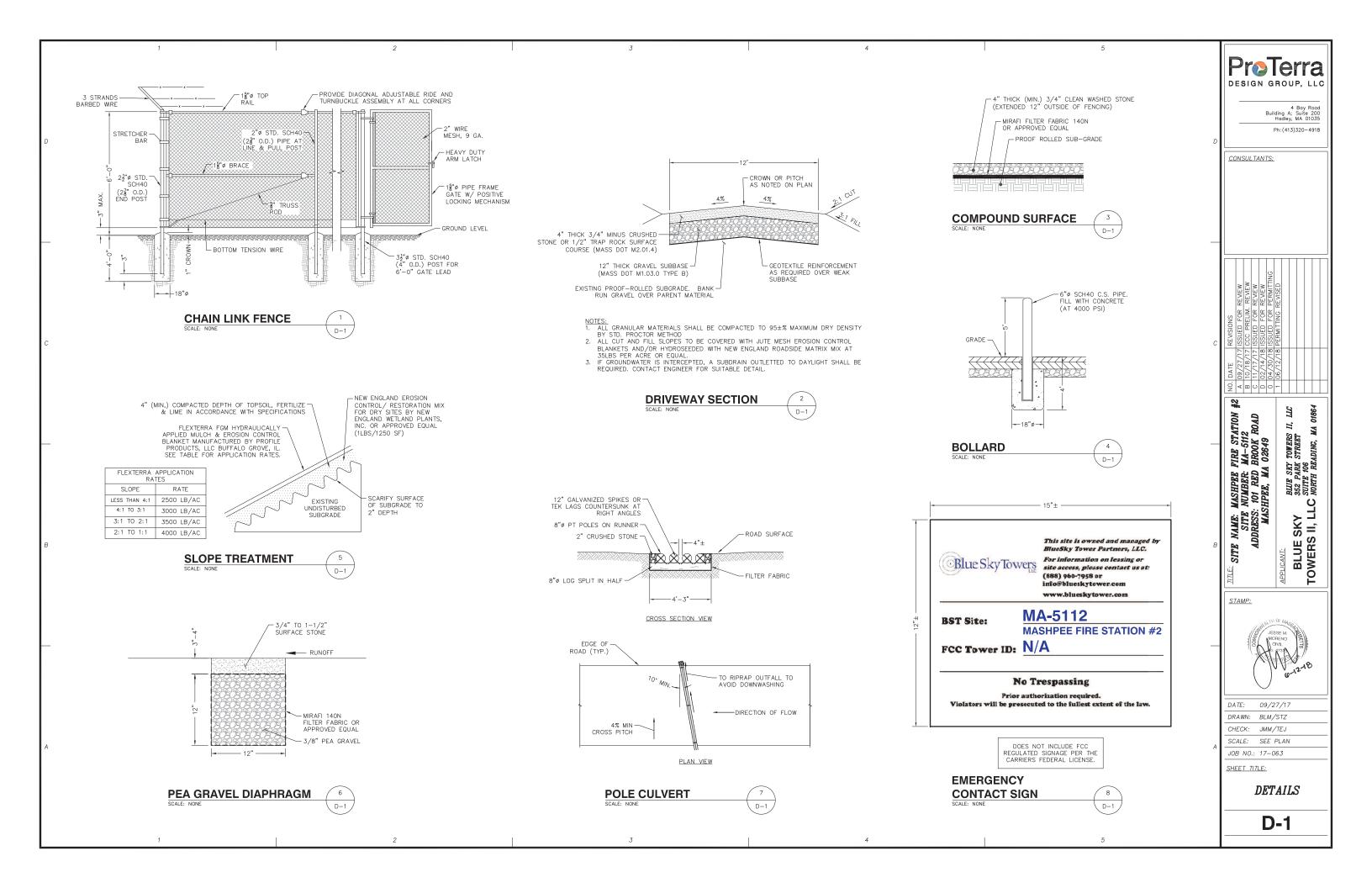
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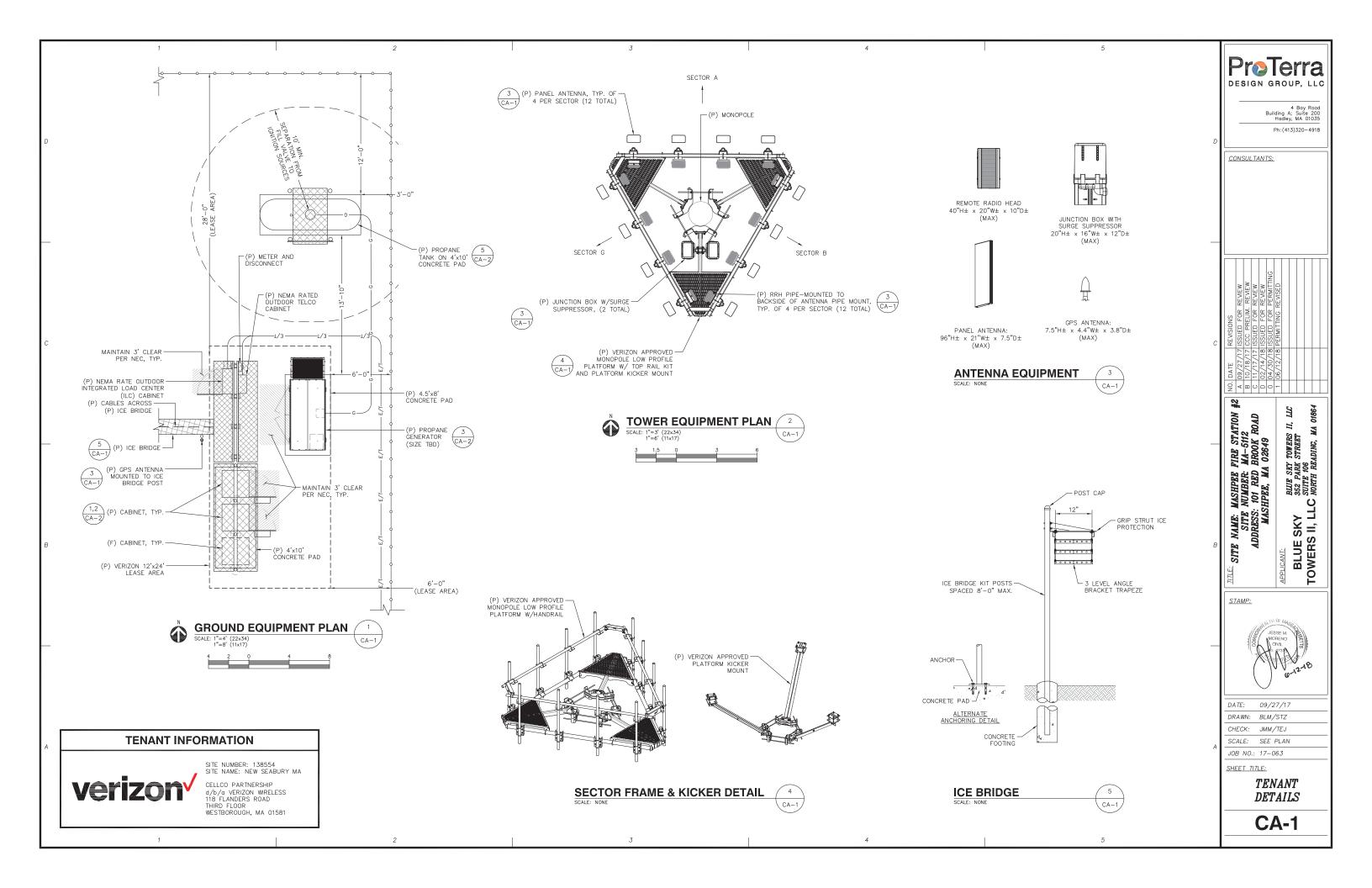


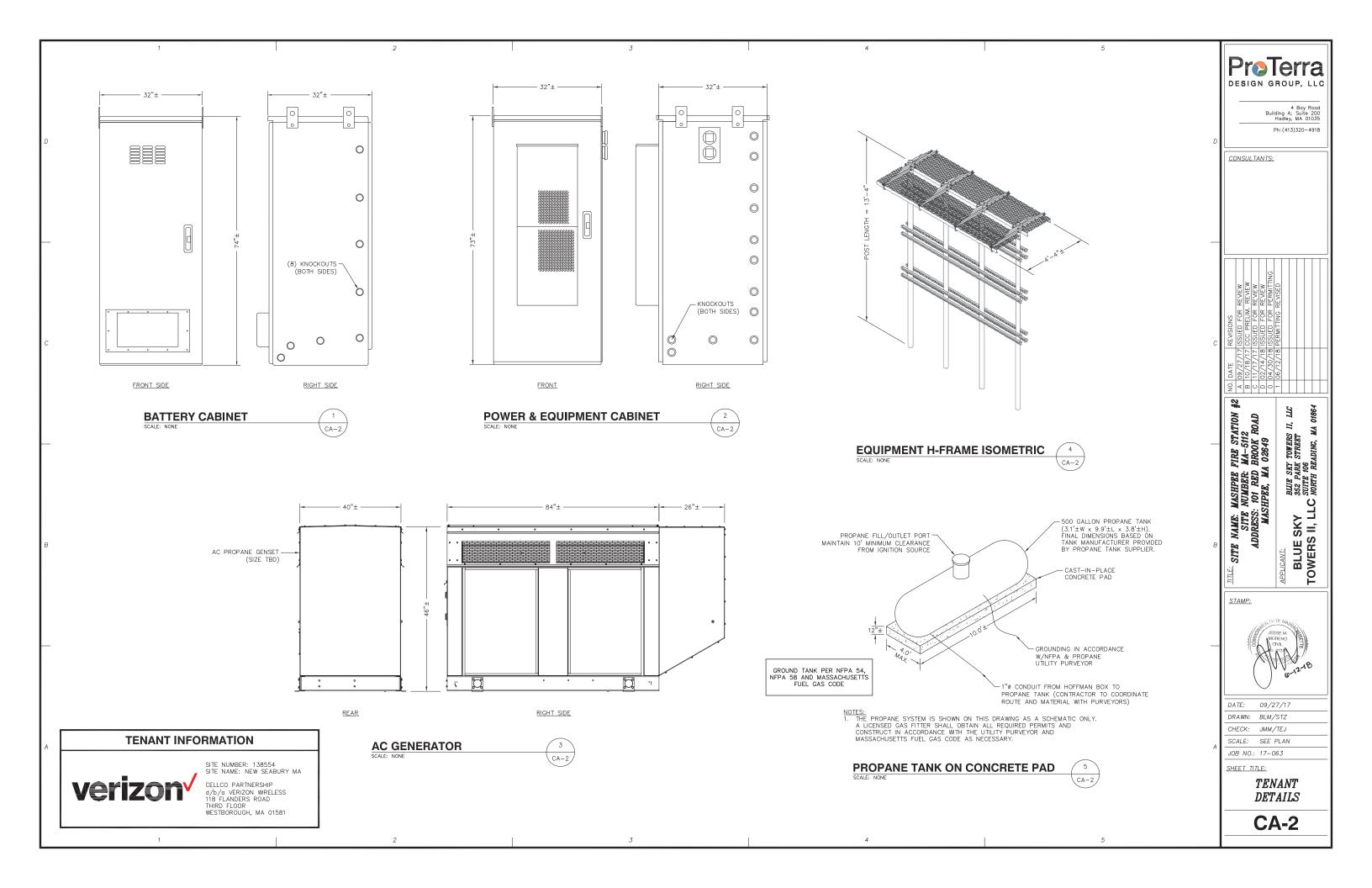


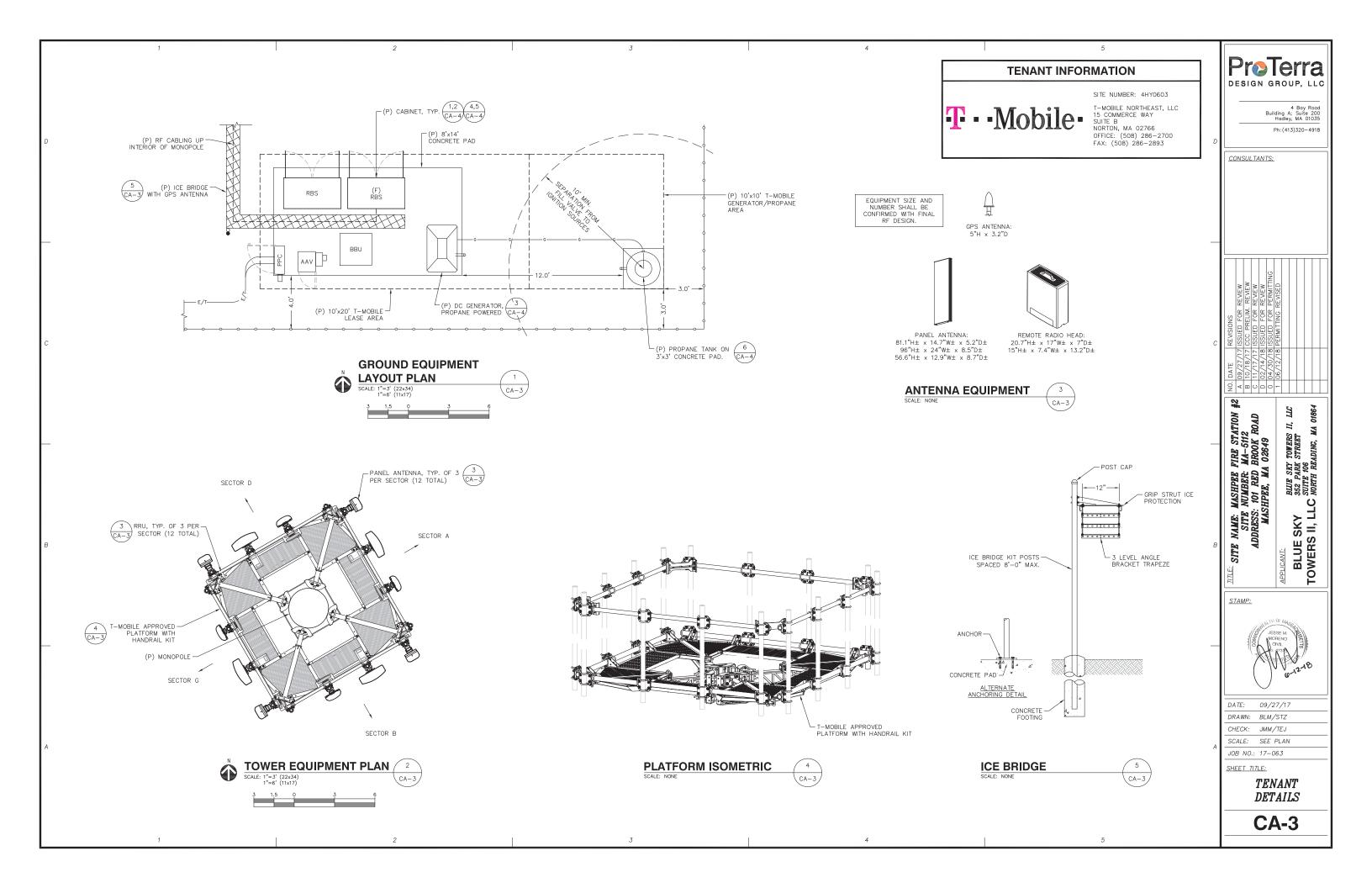


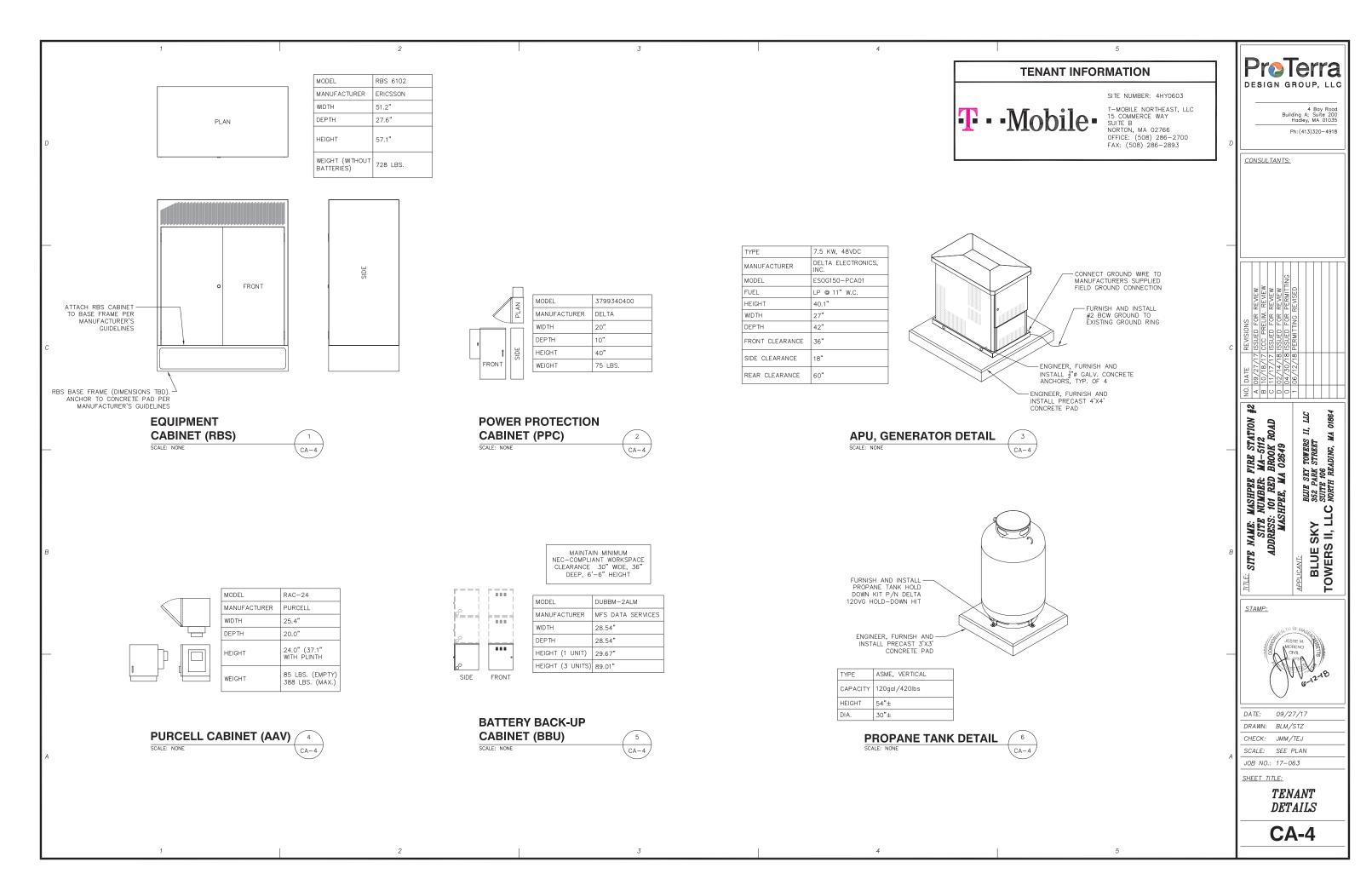


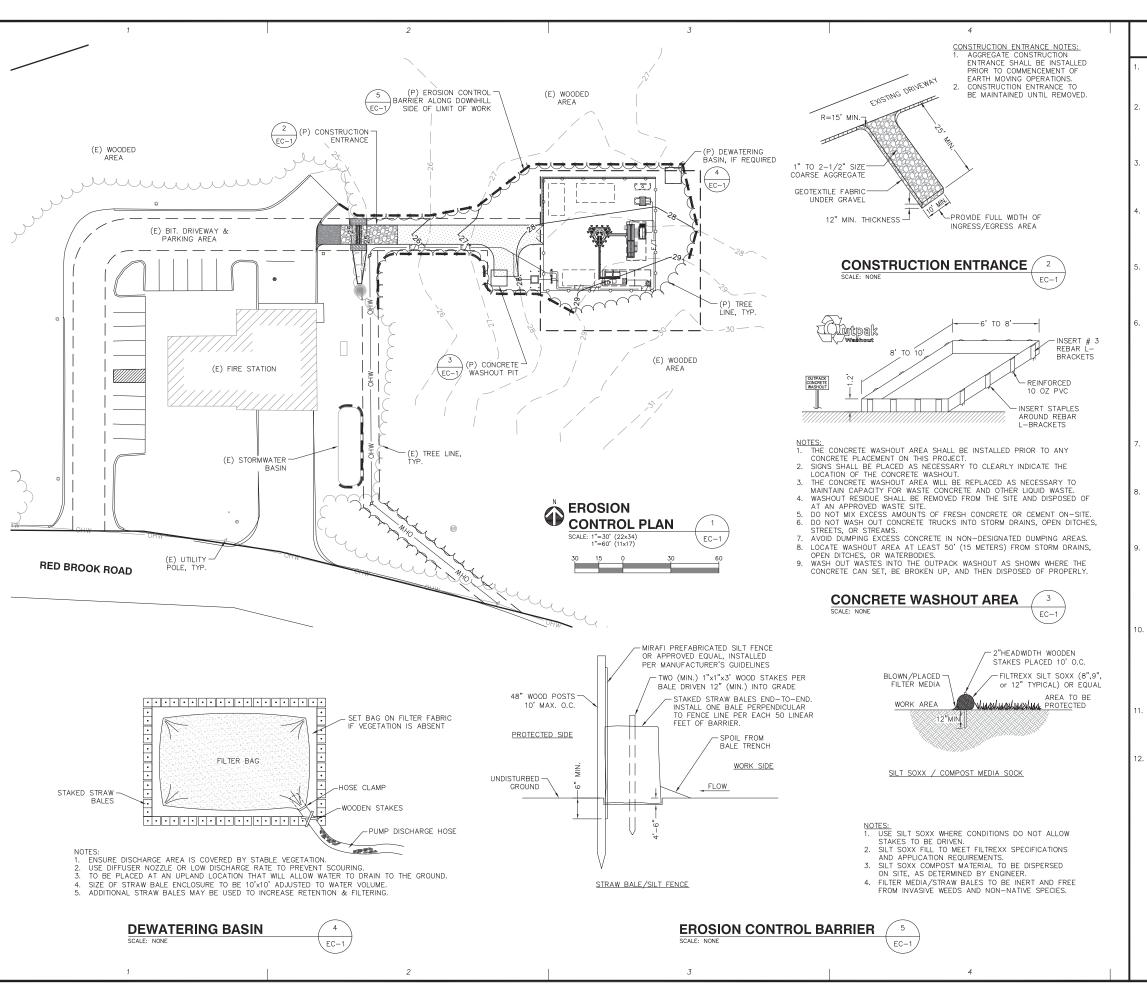












EROSION CONTROL NOTES

- APPLICANT PROPOSES TO CONSTRUCT A CELLULAR TELECOMMUNICATIONS FACILITY CONSISTING OF A FENCED COMPOUND AND UTILITY WORK WITHIN A LEASE AREA AND
- TEMPORARY SILT FENCE EROSION CONTROL BARRIER SHALL BE MAINTAINED THROUGHOUT SITE CONSTRUCTION. STOCK PILE ON SITE 100 FT. OF SILT FENCE FOR EMERGENCY USE. TEMPORARY EROSION BARRIERS SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED.
- THE CONTRACTOR SHALL CHIP ALL BRUSH AND SLASH CUTTINGS ON SITE AND STOCKPILE THE CHIPS TO BE USED ON ALL UNSTABLE, DISTURBED AREAS DURING CONSTRUCTION AS TEMPORARY STABILIZATION MULCH. NO BURNING WILL BE ALLOWED ON SITE.
- TEMPORARY STABILIZATION MUST BE PROVIDED TO ANY DISTURBED EARTH THAT IS OPENED UP IN ANY ONE
 LOCATION FOR MORE THAN 14 DAYS. CHIPS FROM LAND
 CLEARING, EROSION CONTROL BLANKETS, OR FAST GROWING RYE GRASSES MAY BE USED FOR TEMPORARY STABILIZATION AS REQUIRED.
- STRIPPED TOPSOIL SHALL BE STOCKPILED AND PROTECTED WITH STRAW MULCH. ALL STOCKPILES SHALL HAVE AN APPROVED SILTATION BARRIER TOTALLY SURROUNDING THE PILE. THE PILE SHALL BE IN AN APPROVED UPLAND AREA A MINIMUM OF TWENTY—FIVE FEET FROM ALL RESOURCE
- THE PHASING AND SEQUENCING OF THE WORK FOR THE SITE PREPARATION FOR THE TELECOMMUNICATIONS
 EQUIPMENT INSTALLATION CONSISTS OF INSTALLING
 TEMPORARY EROSION AND SEDIMENTATION CONTROL BARRIERS; CLEARING AND ROUGH GRADING AS NEEDED; FOUNDATION WORK; EXCAVATION FOR UTILITIES; BACK FILL FOUNDATIONS AND UTILITY TRENCHES; FENCED COMPOUND CONSTRUCTION; INSTALLATION OF TOWER AND GROUND CONSTRUCTION; INSTALLATION OF TOWER AND DROUND EQUIPMENT; GROUNDING AND LIGHTNING PROTECTION; EQUIPMENT TESTING; FINAL GRADING AND STABILIZATION OF DISTURBED AREAS; LOAM AND SEED DISTURBED AREAS OUTSIDE COMPOUND; FINAL CLEANUP. THE ESTIMATED TIME FOR COMPLETION OF THE WORK IS APPROXIMATELY SIXTEEN (16) WEEKS.
- THE COMPOUND ENCLOSURE IS SURFACED WITH CRUSHED STONE UNDERLAIN BY A WEED-BLOCK SYNTHETIC FILTER FABRIC. DRAINAGE PATTERNS, RUNOFF VOLUMES AND PEAK FLOW RATES WILL NOT BE ALTERED BY THE PROPOSED CONSTRUCTION.
- ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE FENCED COMPOUND SHALL BE PERMANENTLY ESTABLISHED WITH A NATIVE VEGETATIVE GROUND COVER AT THE CONCLUSION OF CONSTRUCTION. GRADED AREAS SHALL BE PROTECTED WITH STRAW MULCH UNTIL A GOOD VEGETATIVE COVER IS ESTABLISHED.
- THE TOTAL IMPACT AREA OF THE DISTURBED THE TOTAL MAPACH AREA OF THE DISTORBED CONSTRUCTION SITE IS BOUNDED BY THE "LIMIT OF WORK" AS SHOWN HEREON. THE MAXIMUM AREA OF DISTURBANCE WITHIN THE LIMIT OF WORK IS APPROXIMATELY 13,230 SQUARE FEET. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122–124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA NPDES GENERAL CONSTRUCTION FEBRUATED PROCESS. CONSTRUCTION PERMIT PROGRAM.
- . THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT WORK IN A MANNER THAT DOES NOT EXCEED THE LIMITS OF WORK SHOWN ON THE PLANS. ADDITIONALLY, THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY RESOURCE AREAS OR DOWNSTREAM
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT FROM BEHIND SILTATION BARRIERS AND DISPOSE OF SILT EVENLY IN UPLAND AREAS. REMOVE ALL EROSION CONTROL DEVICES WHEN A GOOD VEGETATIVE COVER IS ESTABLISHED.
- TO ANY CONCRETE PLACEMENT ON THIS PROJECT, SIGNS SHALL BE PLACED AS NECESSARY TO CLEARLY INDICATE
 THE LOCATION OF THE CONCRETE WASHOUT. WASHOUT
 RESIDUE SHALL BE REMOVED FROM THE SITE AND
 DISPOSED OF AT AN APPROVED WASTE SITE.



4 Bay Road Building A; Suite 200 Hadley, MA 01035 Ph: (413)320-4918

CONSULTANTS:



STATION 5112 OK ROAD 11, TOWERS SKY 4RK 106 REA MASHPEE F NUMBER: 1 101 RED 1 SHPEE, MA BLUE S 352 PA SUITE 1 E NAME: W SITE A ADDRESS: MASH SKY II, L BLUE S TOWERS I

MA

LC



DATE: 09/27/17 DRAWN: BLM/STZ JMM/TEJ CHECK: SCALE: SEE PLAN JOB NO.: 17-063

SHEET TITLE:

EROSION CONTROL PLAN & DETAILS

EC-1





SHPO CORRESPONDENCE



MAY 1 0 2018



MASS. HIST. COMM

500A Washington Street, Quincy, MA 02169

May 7, 2018

Secretary of the Commonwealth Massachusetts Historical Commission Attn: Ms. Brona Simon, SHPO & Executive Director 220 Morrissev Boulevard Boston, MA 02125-3314

Re:

New Tower Submission Packet - FCC Form 620

TCNS Notification ID# 162632

101 Red Brook Road, Mashpee, MA 02649

After review of MHC files and the materials you submitted, it has been determined that this project is unlikely to affect significant historic or archaeological resources. RC. 63971

Jonathan

Archaeologist Preservation Planner Site Name: Mashpee Fire Station #2; Site #: MA-5112 Massachusetts Historical Commission

Dear Ms. Simon,

Blue Sky Towers II, LLC proposes to construct a wireless facility at 101 Red Brook Road in Mashpee, Massachusetts. In accordance with the Federal Communication Commission (FCC) National Environmental Policy Act (NEPA) rules and Section 106 of the National Historic Preservation Act (NHPA), this telecommunications facility is being evaluated for its potential effects to districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture that are listed, or potentially eligible, for listing in the National Register of Historic Place (NRHP). Based upon the nature of the project and the location of the proposed telecommunications facility, this project does not meet the exclusions listed in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), dated September 2004. Therefore, the project is required to undergo Section 106 Review with the Massachusetts Historical Commission State Historic Preservation Office (SHPO).

The proposed telecommunications facility will be located within a wooded area east of the existing fire station. The lease area for the facility is approximately 100-foot by 100-foot, and will contain a 150-foot tall monopole with an optional six-foot lightning rod for a total height of 156 feet. Associated telecommunications equipment will be located outside at the base of the structure within the fenced compound surrounded by a six-foot tall chain link fence with barbed wires, while a pad-mounted transformer will be located just outside the compound. The facility will be accessed via a 12-foot wide gravel driveway along a 20-foot wide access and utility easement, which will extend from the existing access road behind the fire station. This facility, and others like it, will allow Blue Sky Towers II, LLC to provide high quality wireless communication services to the community. Note that the Applicant's name has changed from Blue Sky Towers, LLC to Blue Sky Towers II, LLC since the original TCNS filing

Attached you will find the Project Summary Form and the New Tower Submission Packet (FCC Form 620), which detail the proposed facility and the evaluation of measures taken to identify, assess, and make determinations of effect on the impacts of the new tower on historic sites.

A Cultural Resources Report entitled "Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA" was prepared by Nicolas Avery. Based upon this assessment, there will be no adverse effect on any historic properties identified.



An Archaeological Resource Assessment of Direct Effects was completed by Barbara Donohue, RPA. Based on the results of the assessment, no further archaeological investigation was recommend. The Mashpee Wampanoag Tribe requested a Phase 1 Intensive (Locational) Archaeological Survey (MHC Permit # 3820) which was completed by Archaeological Consulting Services (ACS) in May 2018. ACS recommends no further archaeological conservation efforts for the proposed project. The Phase 1 Intensive (Locational) Archaeological Survey report is being submitted to MHC directly by ACS today, therefore, LE has not included a copy in the New Tower Submission Packet as it will be on file.

We respectfully request a written opinion from your office regarding the potential effect or no adverse effect of the proposed telecommunications facility on resources under Section 106. At your earliest convenience, please forward correspondence to my attention at Lucas Environmental, LLC, 500A Washington Street, Quincy, MA 02169. Please do not hesitate to contact me at 617.405.4140 if you have any questions or concerns about the proposed project or the information contained in the New Tower Submission Packet.

If you have any questions, please do not hesitate to contact me. Thank you for your consideration in this matter.

Sincerely,

LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, Manager, PWS

Environmental Consultant

T: 617.405.4140; F: 617.405.4465 E-mail: cml@lucasenvironmental.net

Enclosures:

Project Summary Form

New Tower Submission Packet (FCC Form 620)

cc: Blue Sky Towers II, LLC – Sean Gormley (electronic copy)
ProTerra Design Group, LLC – Tom Johnson (electronic copy)

Phase I Intensive (Locational) Archaeological Survey

Blue Sky Towers Wireless Facility, 101 Red Brook Road

Mashpee, Massachusetts

Site #MA-5112

Prepared for

Blue Sky Towers II, LLC North Reading, Massachusetts

by

Gregory F. Walwer, Ph.D and Craig S. Chartier, M.A.

ACS Archaeological Consulting Services

June 2018

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Abstract

An intensive (locational) archaeological survey was conducted for a proposed cell tower project in Mashpee. The total project property is 36 acres, although proposed developments will be limited to a 40-meter long, four-meter wide access road and new 150-foot tall monopole with six-foot lightning rod and associated infrastructure. The compound measures 30 meters square, and is set within an adjacent wooded area. Systematic testing was conducted in 7.5-meter intervals for 50cm-square shovel tests throughout the project area. There were 22 systematic tests conducted at 7.5-meter intervals, and no judgmentally placed tests. There were no artifacts or cultural feature contexts recorded during the survey.

Management Summary

ACS conducted an intensive (locational) archaeological survey at 101 Red Brook Road in Mashpee, Massachusetts. The total project property is 36 acres, where Blue Sky Towers II, LLC proposes to develop a 40-meter long, four-meter wide access road and new 150-foot tall monopole with six-foot lightning rod and associated infrastructure. The short access road extends off an existing parking lot of the Mashpee Fire Station #2. The compound measures 30 meters square, and is set within an adjacent wooded area. The project is subject to review by the Massachusetts Historical Commission based on the cell tower application, Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800), and M.G.L. Chapter 9, sections 26-27C (950 CMR 70 and 950 CMR 71). Systematic testing was conducted in 7.5-meter intervals for 50cm-square shovel tests throughout the project area. There were 22 systematic tests conducted at 7.5-meter intervals, and no judgmentally placed tests. There were no artifacts or cultural feature contexts recorded during the survey. ACS therefore recommends no further archaeological conservation efforts for the proposed project.

I. GENERAL INFORMATION

This report provides the results of a Phase I intensive (locational) archaeological survey of a planned wireless facility project by Blue Sky Towers II, LLC in Mashpee, Barnstable County, Massachusetts. The project area is at 101 Red Brook Road in the southern part of Mashpee (Figures 1 and 2). The proposed project area is on a 36-acre parcel (Map 104, Lot 2) owned by the Town of Mashpee, and is the site of Mashpee Fire Station #2. The project area consists of a 100-foot (ca. 30 meters) square compound area and 20-foot (ca. six meters) wide access and utility easement that utilizes the existing driveway and entrance of the fire station, but will be extended by approximately 40 meters along a 12-foot (ca. four meters) wide gravel path to the new compound area. The compound will have a 150-foot monopole with six-foot lightning rod and associated infrastructure that includes a six-foot chain link fence around the compound and a pad-mounted transformer to be located just outside the compound (Figures 3 and 4). The cell tower site number is MA-5112.

On behalf of Blue Sky Towers II, LLC, ACS received project maps from Lucas Environmental, LLC (LE), a land development and permitting firm based in Quincy, Massachusetts. Site plans were drafted by Pro Terra Design Group, LLC of Hadley, Massachusetts in 2017. A project notification (#162632) to the Federal Communications Commission's (FCC's) Tower Construction Notification System (TCNS) resulted in a response from the Mashpee Wampanoag Indian Tribe's Tribal Historic Preservation Office (THPO) that the proposed project has the potential to have adverse effects to historic or cultural resource important to the tribe. The tribe determined that the project area has a moderate sensitivity for pre-contact period Native American archaeological resources based on environmental parameters such as proximity to major wetlands bodies and well to excessively drained soils on relatively level uplands setting, and that South Mashpee generally is known through historic maps, oral history, and traditional cultural knowledge to have been a focus of Native American occupation and habitation for an extensive period of time. The determination that further archaeological evaluation was necessary was made despite a prior archaeological assessment survey of the property (Donohue 2017) that determined the project area to not be sensitive for potential archaeological resources, largely on the basis of distance to the nearest major water source. The opposing tribal determinations and recommendations were issued with a request for a tribally appointed entity to monitor archaeological fieldwork and construction. The tribal role in this process is in compliance with the National Historic Preservation Act (NHPA) of 1966 and subsequent amendments, particularly Section 106 of the act, and 36 CFR 800. ACS requested an archaeological survey permit from the Massachusetts Historical Commission (MHC) according to Massachusetts General Laws Chapter 9 Sections 26-27C (950 CMR 70-71).

Based on potential prehistoric sensitivity for archaeological resources as indicated by the Mashpee Wampanoag Indian Tribe, ACS conducted a saturated systematic subsurface testing strategy and pedestrian surface survey to identify any and all prehistoric and/or historic cultural resources located within the project area. The survey was performed in compliance with guidelines issued by MHC for conducting cultural resource management surveys in Massachusetts, under MHC permit #3820.

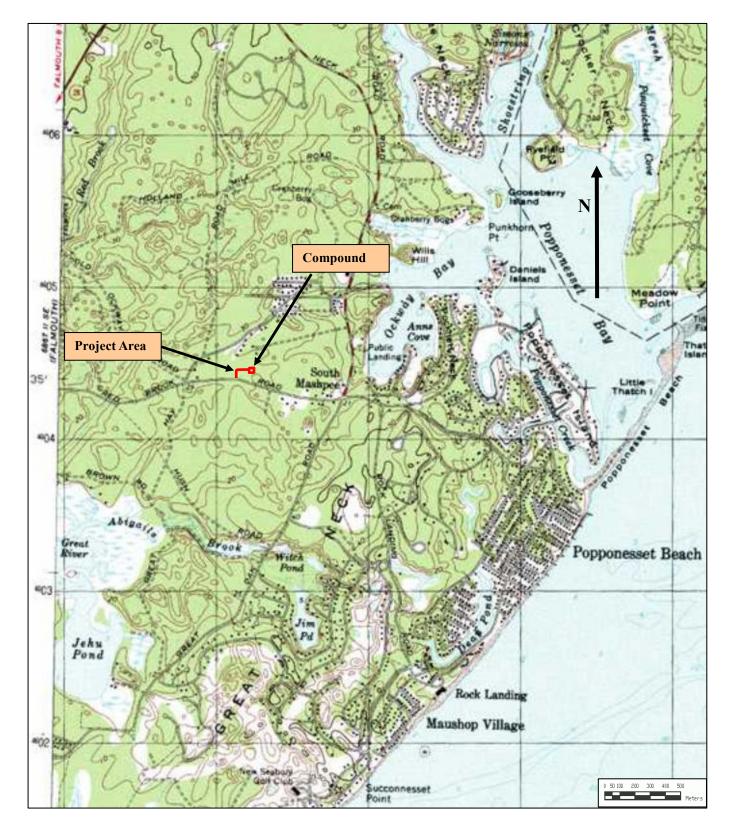


Figure 1: Project Area on Cotuit USGS 7.5' Topographic Quadrangle Map, 1974. 1:25,000 scale.



Figure 2: Aerial Map of the Project Area. 1:4,000 scale.

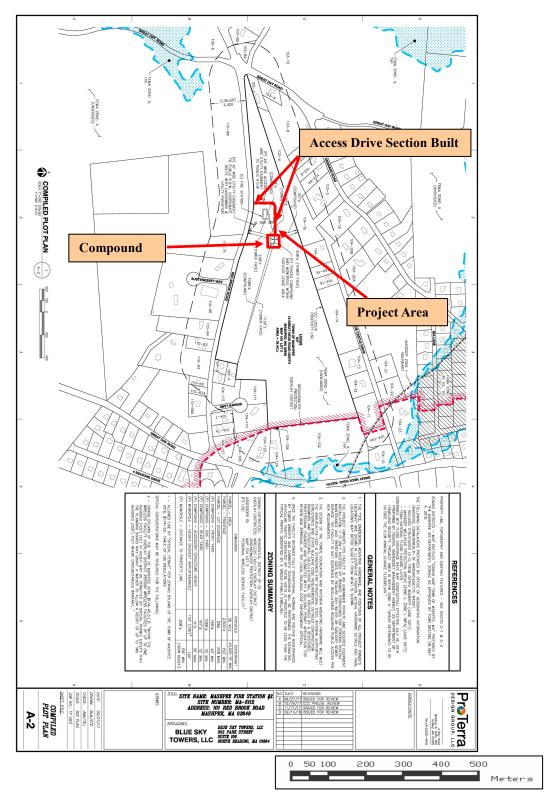


Figure 3: Compiled Plot Plan. 1:10,000 scale.

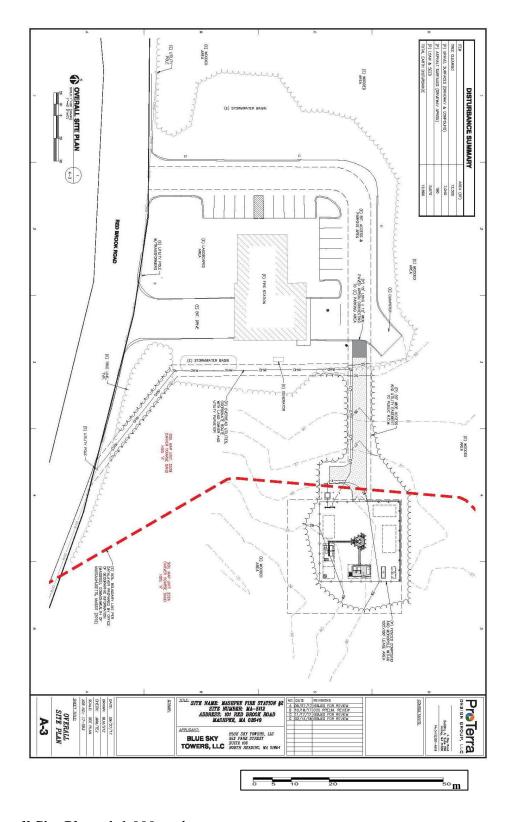


Figure 4: Overall Site Plan. 1:1,000 scale.

II. ENVIRONMENTAL CONTEXT

Mashpee is in southeast Massachusetts within the Cape Cod ecoregion. The site lies at 41 degrees, 35' 2.89" N Latitude, 70 degrees, 29' 3.08" W Longitude. The existing fire station includes two driveways, including the western drive that will be used for accessing the cell tower compound, associated parking, and other infrastructure. The entire Cape Cod ecoregion contains deep quaternary (post-Pleistocene) deposits, with no bedrock geological exposures. The entire project area is within units of Carver coarse sand (252A, 252B), with slopes ranging from zero to eight percent. Carver soils are deep and excessively drained, formed in glacio-fluvial settings representing the outwash plains and moraines left by retreating glaciers. Carver soil profiles typically include a black surface layer of coarse sand to 18 cm deep, followed by a dark gray layer of coarse sand to 25 cm, an upper subsoil of strong brown coarse sand to 38 cm, a middle subsoil layer of yellowish brown coarse sand to 71 cm, and a lower subsoil of brownish yellow coarse sand to 81 cm, overlying a substratum of light yellowish brown coarse sand to 170 cm or more. Cultivation of the soil is possible, but not ideal because of excessive drainage. Elevations of the project area vary from about 25 feet above mean sea level where the access drive is, to nearly 30 feet (ca. eight to nine meters) above mean sea level at the compound area. Major drainages in the Mashpee area flow from north to south, including Red Brook which is located just over one kilometer to the west of the project area. Large ponds also dominate the landscape, including John's and Mashpee within several kilometers to the northwest and north of the project area. Major bays of the Atlantic Ocean include Ockway located just under one kilometer to the east. The closest minor wetlands near the project area are located a few hundred meters to the west near Great Neck Road. The bulk of the parcel remains wooded, with pitch pine, white pine, and scrub oak being dominant trees in the town (MHC 1984).

III. PREHISTORIC CONTEXT

A. Prehistoric Background of the Region

New England's prehistory is poorly understood relative to that of other regions in North America. For most of the prehistory in the region, river drainages defined physiographic units within which human communities operated. This pattern follows from the longitudinal diversity of habitats that occur along drainages, forming ecologically unique wetland habitats, together with the transportation routes afforded by their watercourses. In the clearest examples, rivers provide access to maritime and upland resources at each end of the drainage, and to the diverse habitats in between. The exploitation of those habitats can be integrated into a seasonal round that differs at various historical moments.

The prehistory of southern New England is divided into seven periods, each identified by characteristic projectile points, pottery and other artifacts. These periods are the Paleo-Indian (13,000-10,000 BP), Early Archaic (10,000-8,000 BP), Middle Archaic (8,000-6,000 BP), Late Archaic (6,000-3,000 BP), Early Woodland (3,000-2,000 BP), Middle Woodland (2,000-1,000 BP) and Late Woodland (1,000-350 BP). These cultural periods also are distinguishable on the basis of changing patterns of site location, activities, and size.

Paleo-Indian (13,000-10,000 Years Ago)

Although there is new research continually being conducted, the present theory is that the people who first settled in New England arrived in the New World during the end of the Wisconsin ice age, approximately 13,000 years ago (Stone and Borns 1986; Braun and Braun 1994:14-15). Before this time, New England, and much of the northern half of the United States, was covered by a mile and a half thick sheets of ice as glaciers. Ice ages are part of the Earth's natural warming and cooling cycle. Approximately 60,000 years ago, the temperature dropped on Earth just a few degrees, just enough to cause the glaciers and ice caps located at the north and south poles to begin growing by removing water from the oceans. By approximately 20,000 years ago, the edge of the northern ice sheet had reached its maximum extent, at present-day Martha's Vineyard and Nantucket, and then began to recede. As the glaciers melted, they dropped millions of tons of sand, gravel, and boulders that had accumulated during their journey southward. All this material - the moraine and outwash soils, became the sandy hills, the drumlins, eskers and kames, and basically all the lower layers of soil that make up our landscape today. Mixed in with the moraine and outwash were glacial erratics - these are the large boulders, like Plymouth Rock, that dot our landscape today.

Following the retreat of the glaciers, the climate in southern New England was southern tundra. It was cold, windy, and barren, and the land was covered with large areas of wetlands. Scattered intermittently across the landscape were patches of grasses, shrubs such as sedge, alder and willow, and small stunted trees including spruce followed by birch and pine. There was also a lot more landscape than there is today, because the oceans were approximately 300 to 400 feet lower. In New England, this meant that the coastline was up to 50 miles to the east of its present position. This left exposed large portions of land, like George's Banks, that are today underwater. The islands that we see today in many coastal harbors were at this time hills on a barren landscape, and many of the rivers that we know today were nothing more than springs or small streams (Braun and Braun 1994:3).

The types of animals that were present at this time included some of the smaller species such as foxes and rabbits, but megafauna were also present. Megafauna is a term that describes the large breeds of animals that were present in New England after the last ice age. These include the mammoth, which existed on the tundra, the mastodon, which lived in the early forests, the horse, which later became extinct and was reintroduced by the Spanish in the 1500s, bears like the large Kodiak variety, giant beavers, bison, elk, caribou, and musk ox, which disappeared fairly early.

By the end of the Paleo-Indian Period, the environment in New England was stabilizing, and lifeways were becoming fairly distinct. The megafauna were extinct by 10,000 years ago, probably due to a combination of hunting by the first settlers and climactic change. The forests were beginning to change to more pine and nut-bearing hardwoods that created new habitats for animals and new food sources for people. The tundra gave way to spruce parkland by 9,000 BP and eventually became oak and hemlock by 7,000 BP. While the Paleo-Indian Period can be seen as a time of initial colonization, the next period, the Early Archaic, can be viewed as a time of settling in and accommodation to life in New England.

The Paleo-Indian and Early Archaic periods are sparsely represented on Cape Cod, often being represented by surface finds from interior riverine locations on the Mid-Cape (MHC 1987).

Evidence for the former, in the form of single projectile point finds, include the Hathaway Pond I site (19-BN-623), the Bells Neck Road I Site in West Harwich, and the Bass River Site (19-BN-41) in Yarmouth (Davin and Gallagher 1989; Mahlstedt 1985). It appears that Paleo-Indian populations preferred ponds and inland river sites. One possible Late Paleo-Indian Dalton projectile point was recovered from just south of the project area during Davin's 1990 survey at Bufflehead Bay (Davin 1990).

Early Archaic (10,000-8,000 Years Ago)

The extinction of the megafauna and the changing climate led to a revamping of the Native American way of life around 10,000 years ago. The environment in the Early Archaic had warmed slightly, and as a result, trees such as oaks, pitch pines, beeches, and hazel began to flourish. It was during this time that the major rivers which are around today began to form, and anadramous fish species like salmon and herring began to run up the rivers. This would have provided another food source for the inhabitants of New England. As New England began to become more forested, new mammalian species also would have moved into the area. These species would have included black bear, deer, and moose.

The Early Archaic is one of the little understood and most elusive periods of New England prehistory. Early Archaic sites tend to occur on a wide range of settings including hill sides with slopes over 15 degrees, as well as hilltops. Some sites are situated on the same locations as Paleo-Indian sites, while others appear isolated. Homes at this time have been theorized as being either longhouse-shaped, as have been identified in Taunton, Massachusetts at the Titicut site, or as small pits dug into the sides of hills as have been identified in Connecticut and northern Massachusetts (Braun and Braun 19984: 35; Dudek 2005: 12). It is unknown if the two forms of houses occurred simultaneously, were seasonally determined, or represent different building traditions by different populations.

Evidence of the Early Archaic peoples' process of "settling in" is evidenced in their use of local volcanic materials such as rhyolite and felsite for tools and projectile points, and their possible use of quartz for quick, expendable tools (Dincauze 1980, Meltzer 1988). Hunting during this period may have taken the form of spear-throwing with the use of the atlatl, a weighted stick that was held in the hand and onto which a long spear was placed and launched. The atlatl was basically an extension of the thrower's arm, and it effectively increased the distance, force, and accuracy of the throw.

Early Archaic diagnostic points include Bifurcate-Base points, Kirk Stemmed, and Kirk Corner-Notched points. The materials for these types of points generally do not include the exotic lithics characteristic of the Paleo-Indian period, but tend to be local rhyolites and quartz. There has also been a noted occurrence of quartz technology in the form of bifaces and unifaces without any of the usual temporally diagnostic points being present (Forrest 2000).

A number of Early Archaic sites identified in Massachusetts contained evidence that suggests small hunting groups returned to camps with seasonal regularity. These sites contained stone tools diagnostic of the Early Archaic Period, radiocarbon age determinations, or both. Sites from the Early Archaic period are perhaps best known in southeastern Massachusetts, especially in the Taunton River drainage (Dincauze and Mulholland 1977; Thorbahn 1982; Taylor 1976). Evidence for the Early Archaic has been recorded at Marshfield, Taunton, and Carver,

Massachusetts, with an especially large concentration of sites in Taunton on the Taunton River. The types of artifacts recovered from the Early Archaic period at these sites include Dalton-like points and Eden lanceolate points (Johnson and Mahlstedt 1984). The Titicut site is the largest identified from the Early Archaic period. It has been interpreted as a base camp for several families. Another site of the region had deep pit features, interpreted as pit houses, with an abundance of charred hazelnut shells (Forrest 2000).

The Early Archaic Period is more sparsely represented in the Cape region, with isolated point finds from the Herring River in the Mid-Cape area and Indian Rock on the Outer Cape (Mahlstedt 1985; Towle 1984). Dunford also recorded possible Early Archaic components from sites on the Bass River in Dennis and Stoney Brook Valley in Brewster (Dunford 1987).

Middle Archaic (8,000-6,000 Years Ago)

While the Early Archaic was a time of transition from the Paleo-Indian way of life to a more localized and permanent situation, the Middle Archaic can be seen as a time of more normality and permanence. It still was a time of many changes, though. Oceans remained lower than they are today, but the rate of rise had slowed enough for estuaries to begin forming, which led to the establishment and proliferation of shellfish beds. Shellfish first settled in the warmer southern waters, and eventually moved northward as the sea level rise slowed and waters warmed.

By 7,000 years ago, forests with the same basic composition as today began to be established (Dincauze 1976:119). Evidence of site differentiation and a more complexly ordered social landscape can be extrapolated on the basis of a number of large Middle Archaic sites containing a variety of features. The use of heavy stone tools such as axes, adzes, and gouges increased during this period, possibly indicating the construction of log canoes or at least an increase in woodworking. Evidence for hunting using atlatls first appears at this time as well. In fact, the oldest burial in New England, 7,570 +/- 150 to 7,660 +/- 110 years ago, was located in Carver, Massachusetts, and contained two atlatl weights of the whale-tail variety (Doucette 2005: 24).

Sites from this period are fairly common, indicating that people had begun to spread out over larger areas. They have been found on the margins of bogs, swamps, rivers, lakes, and ponds, and on the present day coasts, with sites of differing size possibly based on site function reflecting seasonal rounds or scheduled subsistence activities, as was the case at the time of European contact (Dincauze and Mulholland 1977). Substantial base camps along rivers, streams, or wetlands; smaller special-purpose camps in uplands or near wetlands; and rock shelters, stone quarries, and workshop areas have all been identified in southeastern Massachusetts (Bussey et al. 1992). The wide variety of sites and the common occurrence of projectile points from this period probably indicate that there were more people living in Massachusetts than ever before. Artifacts recovered from sites of this period include stemmed projectile points of the Neville, Neville-like, and Stark varieties; atlatl (spear-thrower) weights; pecked, ground, and polished woodworking tools such as axes, adzes and celts; and plant processing tools such as mortars, pestles, grinding stones, and nutting stones.

The Middle Archaic Period is well-represented in the Mid-Cape, with a high percentage of the recovered points coming from the Bass and Herring rivers on the Mid-Cape in a variety of environmental settings. A total of 56 Middle Archaic style points were recovered from the Bells

Neck Road I (West Harwich), Swan River (Dennis), and Blue Rock (Yarmouth) sites (Mahlstedt 1985). Isolated Middle Archaic finds have been made at the Hathaway I and II sites in Barnstable, the Fox 4 and 5 sites in Mashpee, and the Round Swan Site in Bourne (Davin 1989; Shaw and Sauvalis 1988; Davin and Gallagher 1987). Little evidence for the Middle Archaic period has been found on the Outer Cape.

Late Archaic (6,000-3,000 Years Ago)

The Late Archaic represents the period with the most identified and recorded archaeological sites in Massachusetts. This has been interpreted by many as indicating a very large number of people living in the area during this period, although archaeologists are not sure why this happened. The case may also be made that this proliferation of stone tools and sites may be more related to a wider variety of stone tools being manufactured for specific purposes and a wider variety of habitats being exploited as opposed to a population boom. The Late Archaic is also a time of greater diversification and specialization than was evident in the earlier periods. The tool kits of the people living on the south coast and its coastal forests differed from that of the people in Maine and further north. This in turn was similar but distinct from the inhabitants of the strictly boreal forests such as those in New York and inland Massachusetts.

Along coastal Massachusetts, the combination of stabilizing sea levels and estuary formation led to significant runs of anadramous fish by the Late Archaic. As a way of taking maximum advantage of these fish runs, Native people began using weirs in the rivers, streams, and bays. Weirs were undoubtedly employed in most of the bays, rivers, and larger streams in southeastern Massachusetts (Johnson 1942, Johnson 1949). Late Archaic populations appear to have settled into narrow foraging territories defined by drainages, and were highly specialized to the habitats within these drainages where activities focused around the seasonal cycle. Sites are found in the same locations as those of the Middle Archaic, with some greater focus on inland/ upland locales. The variety of site sizes suggests use of a radiating, seasonally dynamic settlement pattern (Dincauze 1974, 1975, 1980; Thorbahn and Cox 1984).

The pattern of a riverine-uplands subsistence settlement system apparently emerged during the Middle Holocene, between 6,000 and 5,000 BP, when the climax oak-hickory forest had matured and population levels increased, leading to regional Late Archaic strategies of extensive and intensive resource exploitation (Dincauze 1974). In southeastern Massachusetts, the number and diversity of Late Archaic sites, and their distribution in riverine and inter-riverine, upland settings suggest a broad-base collecting approach to resource-use, and considerable attention to small scale environmental features, including bogs and kettle-hole swamps (Binford 1980).

Another significant development in the Late Archaic was the use of bowls carved out of soapstone (steatite). The actual carving of the bowls was probably not a significant development in itself, but what these bowls represented is significant. The raw material for the bowls, soapstone, is found only in certain deposits in Rhode Island, Massachusetts, and Connecticut. As a result, the recovery of soapstone fragments on the coast indicates either that these items were being traded in an exchange system, or that people were traveling fairly significant distances to quarry this stone. From the coast, the quarries could have been reached in approximately two to three days. The stone would then have to be quarried, worked into shape, and then carried back to the homesite. These bowls are not small affairs by any means, some weighing up to 60

pounds. It is believed that the effort expended to acquire these bowls as well as their weightiness must mean that they were fairly important to the people. Before these bowls were used, food was probably either roasted or boiled in skin lined pits in the ground through the use of hot stones. The soapstone bowls allowed for cooking directly on the fire, a change in cooking technology that eventually led to the use of pottery in southern New England. These appear to have been used only in the Late Archaic, and do not appear in more recent periods. Artifacts from this period include a wide variety of projectile points that some archaeologists believe relate to the movements of southern or western people's into New England. Projectile points and tool traditions represented in Massachusetts include Laurentian (Brewerton), Narrow Point (Small-Stemmed), and Broadpoint (Susquehanna or Wayland Notched) (Johnson and Mahlstedt 1984).

Sites dating from the Late Archaic period are common in the Mid-Cape, being the most common type encountered and occurring in a wide variety of environmental settings (Mahlstedt 1985). Late Archaic points associated with the Small Stemmed Tradition were recovered from the Parcel 1 (19-BN-671) and Parcel 9B (19-BN-668) sites, and from the Hathaway Pond I and II sites (19-BN-623 and 624) (Doucette et al. 1990; and Davin 1989). Other sites dating to this period were found by Herbster during her survey of Camp Edwards, including quartz chipping debris, Small Stemmed, and Brewerton points (Herbster 2005). Sites yielding points associated with the Susquehanna Tradition are common on riverine sites such as the Bass River and Blue Rock sites in Yarmouth, but are poorly represented on the Herring River (Mahlstedt 1985; Mahlstedt 1987). One Susquehanna Tradition site that yielded a rhyolite Atlantic point is the Upper Gate Pond Site (19-BN-827) (Binzen and Chapman 2002).

Early Woodland (3,000-2,000 B.P.)

The main distinction between the Archaic and Woodland Periods is the use of pottery. As far as we know right now, pottery was not made in New England during the Archaic period, and soapstone was not used as widespread as it was during the Archaic. When and where and even why pottery was first manufactured in southeastern Massachusetts is a mystery to archaeologists. Pottery is more fragile, but lighter than soapstone, and the raw material is readily available and easily acquired, but not as valuable as soapstone. The switch from soapstone to pottery was neither immediate nor widespread, but eventually it did occur everywhere in southeastern Massachusetts. It may have been a product of increasing sedentism and larger community size. In this case, because people were not moving around as much, there was less of an occasion for the pottery to be broken during transport, and more people began to make it. The earliest pottery in southeastern Massachusetts dates from approximately 3,000 BP (Braun and Braun 1994:65). This pottery, identified as Vinette 1, has thick walls tempered with a great deal of crushed rock temper and little decoration. These pots are believed to have been suitable for simmering but not boiling. The use of pottery may be related to an increased utilization of nuts and the removal of oils thorough boiling. Pottery may have also been used to render fat to grease in much the same way.

This period is marked by basic technological and economic changes such as the production and use of pottery and a gradual shift to food production (maize, beans, squash, sunflower, and other vegetables). The latter trend is documented by ca. 1,100 BP on Martha's Vineyard (Ritchie 1969), but perhaps began by ca. 2,000 BP (Thorbahn 1982). Other identified changes from the Late

Archaic include the formation of stable estuaries with tidal flats (Cross 1996:5-6) and an apparent increase in the amount of exotic raw materials used such as jasper, chert, and copper. This increase in exotic goods may reflect an increase in trade and communication. Sites dating to this period have been found around large wetlands and lakes, along large river valleys, and on the coasts at the mouth of rivers and streams.

This period is marked by a decrease in the number of exotic finished goods indicative of long-distance trade, and by changes in mortuary practice (increase in secondary interments, less use of ocher, fewer grave goods, more variation in preparation of the dead). While the roots of ceramic and lithic variability are found in the preceding periods, more rapid variation in sequence through time and more regional variation characterize this period. Ceramics vary more in decoration and form. Lithic projectile points are less important in the tool kit, and bone and antler tools are preserved at some sites where matrix conditions are appropriate (Shaw 1996a:84-87). By the end of the period, there is evidence of maize horticulture (Thorbahn 1982).

Artifacts attributable to the Early Woodland include side-notched bifaces, lobate-stemmed Adena, Small Stemmed, Orient Fishtail, Meadowood and Rossville projectile points, as well as cache blades. Smoking pipes, possibly used for the ritual smoking of tobacco, but also for the smoking of other plants such as pokeweed or mint, began to be present in the archaeological record.

The Early Woodland Period is poorly represented in thee Mid-Cape area. A slight concentration of Early Woodland sites are located in the Herring River area; at least seven Early Woodland sites have been identified in Harwich; and isolated points have been recovered from the Round Swamp and Fox 3 Site in Mashpee (Mahlstedt 1985; Davin and Gallagher 1987; Shaw and Sauvalis 1988). Herring River appeared to have one of the highest concentrations of Early Woodland sites in the region (Mahlstedt 1987: 72).

Middle Woodland (2,000-1,000 B.P.)

Settlement and subsistence are similar to those of the Early Woodland period, with the main difference being lengthened stays at large sites along waterways, but with a continuation of the use of upland areas for short-term resource procurement. Long-distance communication and exchange appear to shut down by the end of the period.

During this period, there is a marked decrease in the number of exotic finished goods, and changes in mortuary practice to an increase in secondary interments and less use of ocher. Ceramics vary more in decoration and form, with more occurrences of smoothed surfaces and the beginning of the use of shell temper. The decrease in the variety of projectile points may be evidence that these were now less important in the tool kit, although this issue is still being studied. Typical projectile points include Fox Creek and Steubenville points, and in the later Middle Woodland, Jack's Reef points. While the amount of exotic finished goods decreased, the amount of exotic raw lithic materials increased, with Jack's Reef points often being made of non-local chert (Shaw 1996b: 92-93). Some projectile point types from the Early Woodland, such as Rossville and Small Stemmed, continue into the Middle Woodland (Shaw 1996b:90; Hasenstab et al. 1990).

Middle Woodland Period sites are relatively numerous with several sites on the Herring and Bass rivers, especially at the Blue Rock Site in Yarmouth (Mahlstedt 1985). Other sites with Middle Woodland components are the Fox 5 Site in Mashpee, the Round Swamp and Orchard Road sites in Bourne, and the Hathaway Pond II site to the east of the project area in Barnstable (Shaw and Sauvalis 1988; Davin and Gallagher 1987; Davin 1989). The Santuit River I site also yielded a Fox Creek-like point (Ingham et al 2001).

Late Woodland (1,000-350 B.P.)

This is the period just prior to European contact, and as a result, many of the historical reports written by the early explorers of New England (e.g. Verrazanno, Gosnold, Pring, Smith) present one way of understanding the late Late Woodland period. Some of their observations may be able to be extrapolated back into the prehistoric past through the use of ethnographic analogy. These analogies can be created with more confidence as pertaining to the culture of the Late Woodland period than any earlier one.

Ethnohistorically, it was recorded that the Native people lived within a community territory that for the most part supplied their own needs. Being on the coast or within a coastal environment, the Native people of Cape Cod and southeastern Massachusetts participated in a seasonal migration that was probably very similar to that which they had done for centuries.

The seventeenth century Wampanoag were practicing what is well known to anthropologists as a mobile economy. These people were seasonally migrational, so they moved from place to place throughout the year to coordinate the resources of their territory. The resources they were using were ill-distributed, and as a result, they had developed a specialized economy that maintained higher population numbers than could be done if those resources were gathered in isolation by specialized groups (Higgs and Vita-Finzi 1982:28). Their system was not as unique among peoples as some researchers believe (Dunford 1992: 23). In Frederick Dunford's view, the Cape Cod and southeastern Massachusetts Natives practiced a unique human adaptation to the environment that he termed "conditional sedentism" (Bragdon 1996:58). This adaptation had the estuary as its primary focus, with its human community "joining and splitting like quicksilver in a fluid pattern within its bounds." (Bragdon 1996:59).

The Cape Cod Wampanoag exploited a diffuse range of plants and animals, and coordinated their gathering so that as each species came into season, it was intensively harvested and stored for the winter. In order to do this, the people would split up during the spring, summer, and early fall, and each family would venture out to their planting fields, which became their seasonal bases. They would then move out from these to exploit various resources. In the fall, they would all join up again, and move as a community to a sheltered valley or into the woods and establish a winter seasonal base from which to venture out and exploit winter resources. At spring, the entire process would begin again. (Nanapashamet 1996).

The ceramics of the Late Woodland period are often shell-tempered or made with fine grit temper and have thinner bodies and a more globular form than the earlier ceramics. The diagnostic projectile point of the Late Woodland period is the triangular Levanna point and occasionally the elongated Madison form. This period is marked by an increasing importance in

horticulture (maize, beans, squash, sunflower, and other vegetables) in coastal or riverine zones, which begins by ca. 1,100 BP on Martha's Vineyard (Ritchie 1969).

The decrease in projectile point styles and the increase in the reliance on horticultural crops may be attributed to increasing numbers and densities of population at larger sites. While the occurrence of the "village" in southeastern Massachusetts continues to be debated, the effects of an increased reliance on corn, beans, squash and to a lesser degree gourds, sunflowers and tobacco, definitely led to a degree of sedentism not seen prior to this time (Hasenstab 1999; Kerber 1988; Luedtke 1988; Thorbahn 1988).

The Late Woodland Period dominates Cape Cod in terms of distribution and evidence of occupation, with the Levanna point being the single most common artifact found on Cape Cod (McManamon 1984). Levanna points are common in the Mid-Cape area, but not as common as on the Outer Cape. Sandy Neck in Barnstable appears to have been one of the most utilized sites on Cape Cod during the Middle to Late Woodland periods (Dunford 1997). Ingham identified a Late Woodland shell midden and Levanna point at the Santuit River I site, and Late Woodland material was recovered from sites on Washburn Island and along Child's River in Falmouth (Ingham et al 201; Mahlstedt 1985).

B. Known Prehistoric Sites

The town-wide reconnaissance survey conducted by the Public Archaeology Lab Inc. in 2011 found that, of the 26 known prehistoric sites in Mashpee, the majority were small, isolated lithic scatters, although a variety of site types was present (Herbster 2011:74). Areas of high prehistoric sensitivity were identified in areas surrounding wetlands, with major sites on the margins of Popponesset Bay and the larger town ponds (Herbster 2011:76). The sensitivity maps generated for the reconnaissance survey gave the current project area a low sensitivity rating for both prehistoric and historic archaeological resources.

The majority of the sites identified within 2 km of the project area (**Table 1**) represent findspots of isolated projectile points and single pieces of debitage. This may indicate the predominant use of the area as hunting ground, where the points represent items lost during the hunt and the isolated debitage represent very limited reduction or finishing of bifaces into projectile point for use during the hunt. The "Large Site" was identified by Frank Kremp of the Massachusetts Archaeological Society, but since no further information is provided, it is not known if it represents a multi-component base camp or just a single large site. The shell midden indicates the processing of shellfish along the shore at some point in the past.

The Public Archaeology Lab. Inc. conducted an Intensive (locational) Archaeological Survey on 420 acres of land at Bufflehead Bay in 1990. The land was proposed to be developed into New Seabury, a 500+ lot residential development with golf course and sewage plant. The northern edge of this survey was located just south of the current project area on the south side of Red Brook Road. The property was divided into zones of sensitivity for the survey: 100 acres were determined highly sensitive due to the presence of small knolls with level terraces and well-drained Carver sands; 120 acres of moderate sensitivity were principally based on the distance of

over 150 m. from fresh or salt water sources; and 200 acres had low sensitivity due to the presence of poorly-drained soils, water, and disturbance (Davin 1990: 1). The north end of the project area just south of the area for the current proposed cell tower was given a moderate sensitivity rating. Testing consisted of the excavation of 715 50-cm-square shovel test pits in 30-m. square block test patterns, with 12 array pits around test pits containing potentially significant finds, and 33 judgmental test pits spaced 10-m. apart on transects. Recovered prehistoric artifacts consisted of findspots of a quartz Late Archaic stemmed point, a chert possible Late Paleoindian/ Early Archaic Dalton point, and a single chert flake, all from separate test pits. Testing at the Bufflehead Bay project area indicates that prehistoric sites expected to be encountered would consist of small sites occupied for short periods of time and with low artifact densities.

Table 1. Prehistoric Sites Within 2 km of the Project Area

Site	Type	Period	Artifacts	Nearest Water
19-BN-28	"Large Site"	Unknown	Unknown	Ann's Cove
19-BN-246	Shell Midden	Unknown	Unknown	Ockway Bay
19-BN-627	Find Spot	Unknown	1 Brown Chert CD	Unnamed Wetland
19-BN-628	Find Spot	Early Archaic	Chert Hardaway Dalton Point	Dutchman's Brook
19-BN-629	Find Spot	Late Archaic	Quartz Archaic Stemmed Point	Dutchman's Brook
19-BN-816	Find Spot	Unknown	1 Quartz Shatter	Spinnacker Cove
19-BN-817	Find Spot	Unknown	1 Quartz CD	Spinnacker Cove

C. Prehistoric Archaeological Potential

Archaeological sites are found in a wide variety of environmental settings, with new settings and locations of sites in areas not usually tested by cultural resource management surveys coming to light each year. The majority of sites, though, are to be found in particular environmental contexts (Funk 1972; Root 1978; Thorbahn et al. 1980; McManamon 1984; Mulholland 1984; Thorbahn 1984; Nicholas 1990). By using the contexts of known sites, archaeological sensitivity models can be developed to predict the potential locations of archaeological sites.

Sites in southern New England appear to be linked to three variables: topography, soil characteristics, and proximity to water, resulting in the general predictive model of a predominance of sites on flat to low slopes and on well-drained soils near fresh or salt water. These factors can be combined with the proximity to natural resources (clay, lithic raw materials, and seasonal foods) and the use of transportation routes via waterways or land trails.

Pre-contact Archaeological potential can be stratified as follows:

High potential: <300 m. from a water source on a <8% slope with excessively well drained soils and minimal site disturbance.

Medium potential: 300-400 m. from a water source on an 8%-15% slope with well-drained soils and moderate site disturbance.

Low Potential: >400 m. from a water source, >15% slope on poorly drained soil and heavily disturbed.

The project area is in a nearly level to gently sloping setting on deep, excessively drained soil, which would have been conducive to prehistoric Native American use and settlement. There are wetlands within a few hundred meters to the west, although these are relatively minor, with the nearest major water source being Ockway Bay nearly one kilometer to the east. The distance to substantial bodies of water would have greatly limited the intensive use of the project area, although these types of settings were conducive to short term occupations and task-specific resource extraction. Based on the pre-contact archaeological potential model described above, the project area is designated as having a moderate sensitivity for potential prehistoric cultural resources.

The small to medium sized sites of the area are expected to relate to resource procurement activity and the harvesting of faunal resources such as deer, fish, and small mammals, or the collection of floral resources such as medicinal plants, or other raw materials. Occupation evidence is expected to take the form of hearths and activity areas related to all phases of lithic reduction, as well possibly food processing and domestic activities.

Larger sites of the broader area may yield evidence of multiple hearths, features related to house construction such as post molds, and storage and refuse pits. A wide range of activities may be expected to be evidenced at sites such as these. Artifacts expected at such sites may include pottery, steatite, a wide range of lithic tools, and evidence of lithic reduction. Faunal and floral remains may be recovered. Fewer large sites, however, are expected to be encountered in the project area or similar settings at considerable distances to larger bodies of water. If a larger site was present, it is expected that it would cover a greater area and be more visible archaeologically than the smaller sites.

According to the Donohue (2017:6) report, the project area bears a low sensitivity for potential prehistoric cultural resources because of distance to the nearest major wetlands cluster to the north, at 475 meters, and since the majority of sites in the region are clustered around Waquoit Bay to the west and Ockway Bay to the east. The assessment survey report further cites Herbster (2011) indicating a low sensitivity for the project area. However, the rare recovery of a Late Paleoindian to Early Archaic Dalton point in the Bufflehead Bay survey immediately to the south of the project area elevates the sensitivity of the project area. Also, the determination of low versus moderate sensitivity in the analysis of the project area ultimately resides in the scale of wetlands size that one uses to measure distance to nearest water, with the current determination providing the more conservative criteria for dismissing a project area from further archaeological evaluation.

IV. Historic Context

A. Historic Background of the Mashpee Area

Occupation during the Contact Period (1500-1620) is believed to have clustered at Waquoit and Popponesset bays on the south shore of the town, with smaller centers along major rivers and at lake and pond shores (MHC 1984: 2). Known trails that connected the populations with the wider Cape Cod area ran from Cape Cod Bay to Shawme Lake, following what is now Sandwich-Cotuit Road; along what is now Route 130 with a branch extending along Falmouth-Sandwich Road; between the Quashnet and Mashpee Rivers to Great Neck and Ockway Bay along Lovells-Waquoit-Great Neck Roads; and Old Barnstable Road to an abandoned way along the Quashnet River north of Johns Pond (MHC 1984: 2). Little else is known about the populations who lived in the area at this time. It is assumed that they hunted, fished, and collected shellfish along the shores, as well as engaged in horticulture. Communities may have moved from the shores to more protected inland areas around the ponds during the fall and winter, returning to planting fields along the shore in spring.

The **Plantation Period** (1620-1675) saw a continuation of the use of established trails and lifeways, with European diseases possibly affecting the populations to an unknown degree. Much of Mashpee may have been under the leadership of Poupmunnuch, the sachem of Cotacheset (Oyster Island in south Barnstable) (MHC 1984: 5). The first European owner of land in the town was Richard Bourne, who had come to preach to the "South Sea Indians" in 1658 and who purchased land at Waquoit Harbor and to the east and south of Mashpee Pond in 1661 (MHC 1984: 5). Bourne continued to live in Sandwich after the purchase. Bourne was ordained as pastor of the Mashpee Indian Church in 1670, with plans to make the church, located northeast of Santuit Pond, the focal point of a Christian Indian Community (MHC 1984: 5). Bourne was instrumental in having Mashpee set apart as reserved land for the Native people, with all lands being held in common. The population of the town was reported as 237 in 1672, with 90 persons being baptized two years later.

Early trails and roads established before European contact continued in use during the Colonial Period (1675-1775). A meetinghouse was established in 1684 in the eastern part of the town on the road from Cotuit to Sandwich. This building was subsequently moved in 1717 to its present location along the Mashpee River and enlarged there. Settlement in town then began to be focused around this meetinghouse after the move. In 1685, the Massachusetts General Court ruled that no land could be sold by Natives without the permission of the court, and guardians were appointed to the town in 1693 (MHC 1984: 6). Conditions under guardianship were less than ideal, and in 1760 a Mashpee Native traveled to England to plead his case before the King. This resulted in permission being granted by the Crown for Mashpee to elect its own officers (MHC 1984: 7). Legislation was passed by the Massachusetts colonial government in 1763, conferring district status to the town and opening settlement in the town to outsiders (MHC 1984: 6). This resulted in the number of whites in the town to double between 1765 and 1790. Generally, the population remained small, but stable, between 1685 and 1765 (141 individuals over 12 years old in 1685 to 230 Natives, 31 "Negroes" and 77 whites in 1765) (MHC 1984: 6). Most of the inhabitants continued to live in traditional style homes ("wigwams") until 1725 when inhabitants were allowed to hire carpenters from outside of the community to build English-style

homes. By 1767, there were 21 shingled homes and 52 traditional-style homes. The ratio of English-style to traditional-style homes continued to increase throughout the period. By 1776, the presence of English versus traditional-style homes were almost evenly split (42 to 39), and by 1800, there were 80 English-style houses with only a handful of traditional-style homes remaining (MHC 1984: 7).

Statistics for the **Federal Period** (1775-1830) show a stable population numbering in the 300s for the entire period (MHC 1984: 7). Settlement continued to be dispersed, with the greatest concentration of Native homes being located on Great Neck between Popponesset and Waquoit Bays. Two gristmills were present in the town by 1794, possibly having been built by nonnatives once the area had been opened to settlement by outsiders in 1763. While traditional lifeways focused on hunting, fishing, horticulture, and resource collecting continued to form the basis of the household economic lives of inhabitants, cordwood appears to have been the chief export from Mashpee in this period (MHC 1984: 8). Service on board whale ships was another popular occupation by the town's male inhabitants.

Unlike many other towns, no rail lines connected Mashpee to other communities during the Early Industrial Period (1830-1870). The population remained stable (between 309 and 348 for the period) but the ratio of whites to nonwhites continued to increase from 1:20 in 1840 to 1:8 by 1870 (MHC 1984: 9). A resurgence in the Baptist faith occurred after 1830 thanks as a result of preaching by Blind Joe Amos and Pequot William Apes. Apes also was a staunch advocate for greater independence in the governing of affairs for the Mashpee people. The town was returned to the status of a district in 1834. This resulted in a return of many former inhabitants, and consequently land scarcity. In order to preserve the land rights of the inhabitants, much of the open land was divided into 40-acre lots in 1841-42, and assigned to specific families (MHC 1984: 9). A total of 5,000 acres was retained as common land. Settlement in the town remained dispersed during this periodm with a focus being south of Mashpee Pond and extending east toward the Santuit River mill (MHC 1984: 9). Smaller settlement concentrations were located to the southwest of Ockway Bay; the east side of Johns Pond; the southeast shore of Ashumet Pond; and the northeast shore of Wakeby Pond. Cordwood manufacture continued as one of the most important economic outputs of the town, but cranberry production was established after the 1830s, and in 1834 the Mashpee Manufacturing Company was established by local Natives to promote broom sales. The property was eventually sold to outsiders, and the land was used for cranberry bogs (MHC 1984: 9). Mashpee was incorporated as town in 1870.

Roads that followed the ancient Native trails continued in use in the Late Industrial Period (1870-1915). Restrictions on land sales to outsiders were removed in 1870, which led to the purchase of large tracts of woodland, swamps, and oceanfront property soon thereafter. This led to more intensive linear development of cottages along Sandwich-Cotuit Road and the development of large cranberry bogs. The cottages, which were associated with the developing tourist industry, and the cranberry bogs, led to new sources of job opportunities for residents as hunting and fishing guides and workers in the cranberry industry (MHC 1984: 10). The population saw a slight decline in this period from 348 to 263 by the end of the period, with an increase in the ratio of non-Native to Native habitants to 1:4.

Improvements to the roads finally occurred in the town during the Early Modern Period (1915-1940) due to the increase in automobile traffic associated with more tourists and summer

residents. Falmouth Road was improved by the mid-1920s as part of Route 28, and Forestdale Road was upgraded to Route 130 (MHC 1984: 11). The town still remained the smallest in the county, and it experienced a slight population decline between 1905 and 1920 (n=242 by 1920). This trend was reversed between 1930 and 1940 (n=434 by 1940) due to the increase in accessibility to the area by automobile. The increase in population was accompanied by an increase in the ratio of non-Native to Native inhabitants (1:3 in the 1930s). More cottages were built in the town during this period along the southeastern shore of Mashpee Pond; along Nantucket Sound at Rock Landing; along Shore Drive; to the south and southeast of Dean Pond; and to south of Popponeset Creek (MHC 1984: 11).

B. Project Area Background History

The proposed tower is located approximately midway between Popponesset Bay and Waquoit Bay. No road is shown passing through the area on the 1794 map (Figure 5), but there was a grist mill located to the west along Red Brook to the north of Waquoit Bay. A road (Red Brook Road) is shown on the 1831 map (Figure 6), connecting the mill along Red Brook to the area south of Ockway Bay where two houses are shown. The project area itself appears to have been wooded at the time. An 1877 map of Mashpee shows that the project area was in a parcel owned by the Keeter family. The 1877, 1880, and 1949 maps (Figures 7-9) do not show any structures on the property, although by 1880, settlement is present near Ockway Bay, and by 1949 residences appear on Red Brook Road east of the project area and southwest of Ockway Bay.

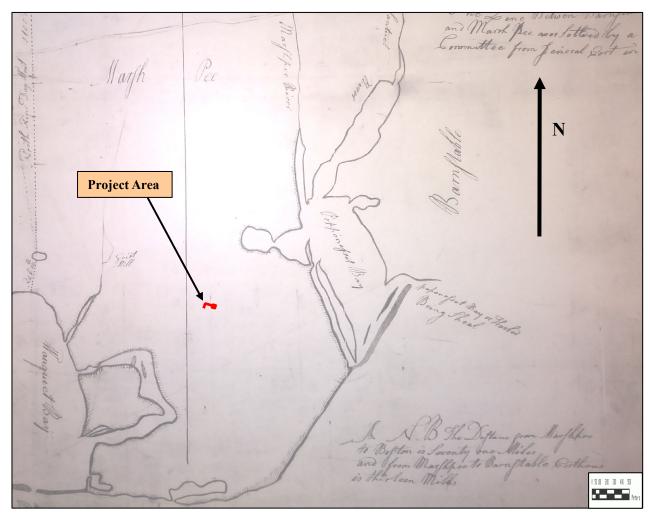


Figure 5. 1794 Map of Mashpee.

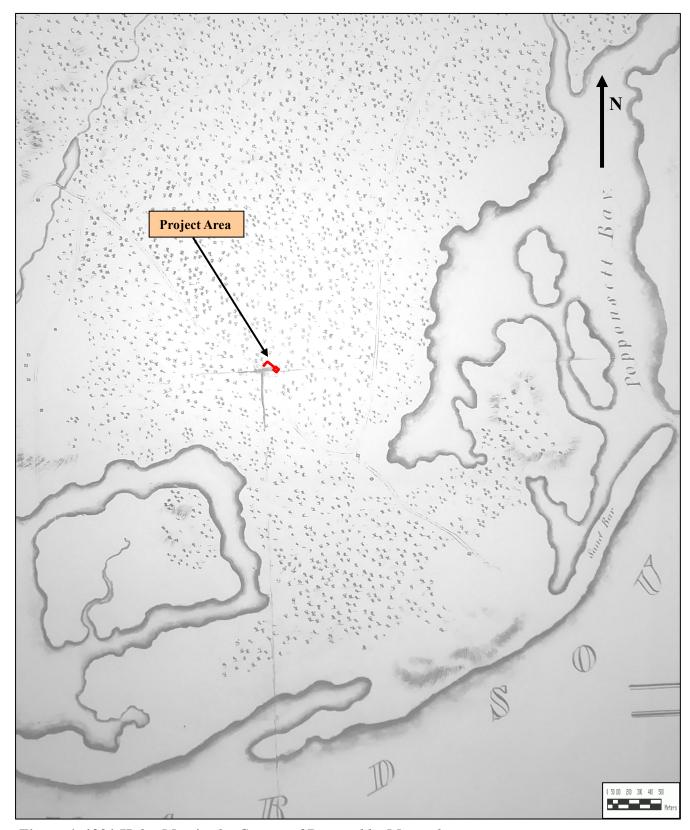


Figure 6. 1831 Hales Map in the County of Barnstable, Massachusetts.

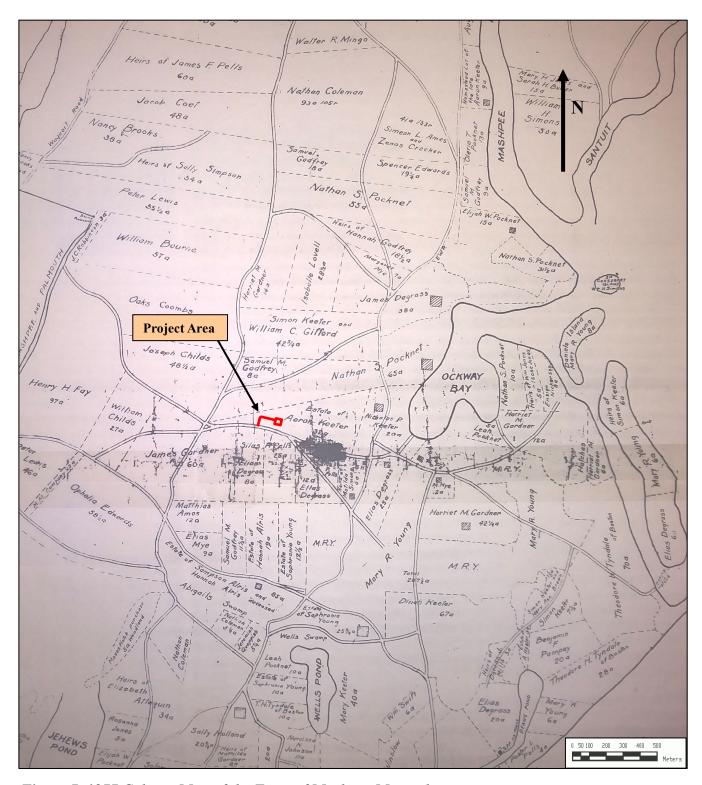


Figure 7. 1877 Cahoon Map of the Town of Mashpee Massachusetts.

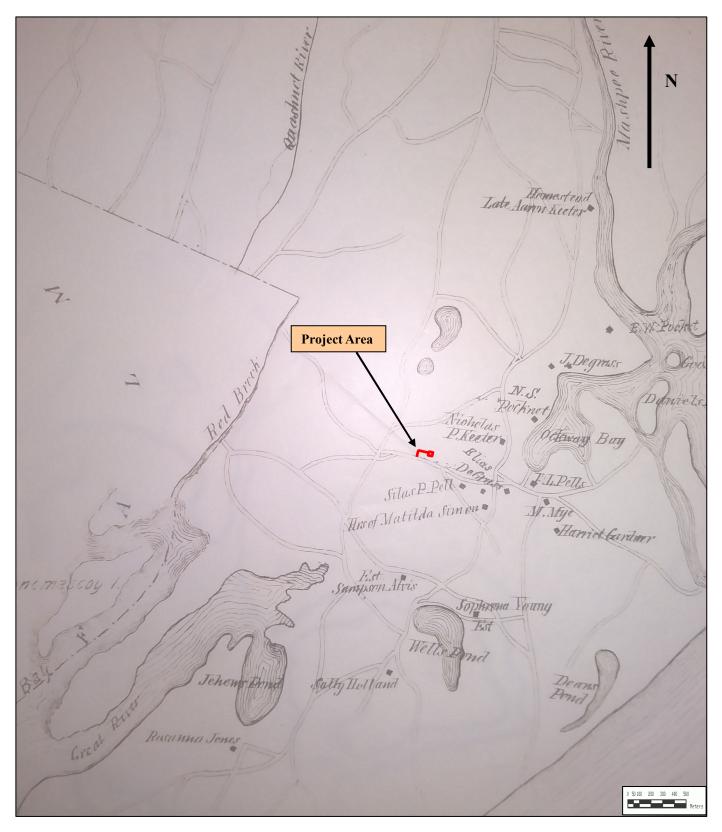


Figure 8. Walker 1880 Map of the Town of Mashpee.

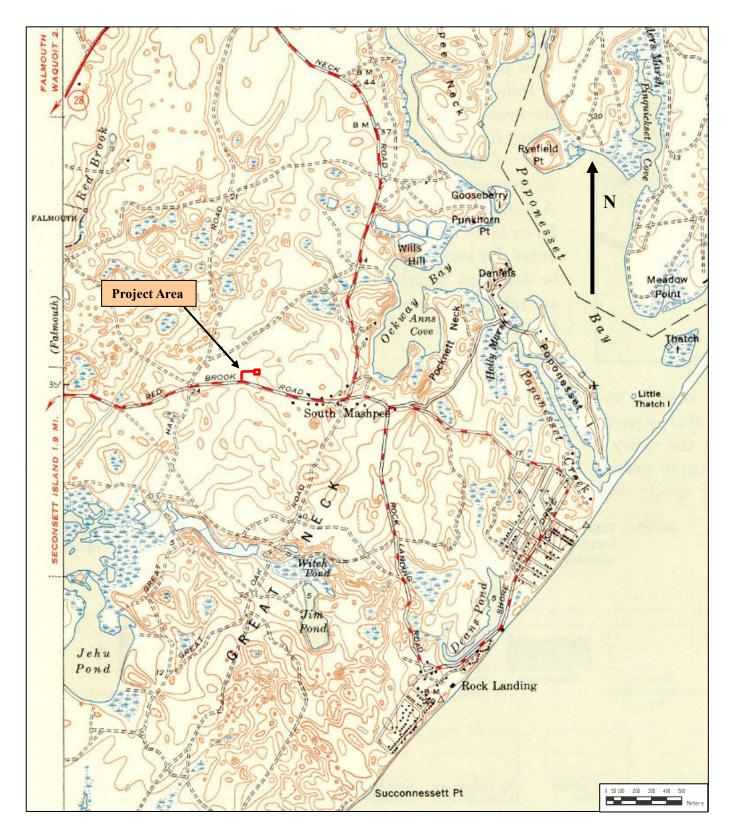


Figure 9. 1949 USGS 7.5' Topographic Map, Cotuit Quadrangle.

C. Known Historic Archaeological Sites

The historic sites within 2 km of the project area represent the use of this part of Mashpee by the Mashpee Wampanoags in the 19th century. A variety of sites representing many of the everyday locales that would be present in such a community have been identified: homesites (HA-21 and 22), a school/ chapel (HA-12), traditional cultural property (the largest piece of land that was continually held by the Mashpee Wampanoag- HA-19), and burial grounds (HA-11 and 16). The presence of such a wide variety of Mashpee Wampanoag sites within a relatively small distance around the project area makes it more likely that it was utilized to some degree at least in the 19th century by Mashpee Wampanoag.

Historic material was found to be associated with another nearby Mashpee Native family homesite (HA-13) that had been predicted based on the 1877 map of the town and may be typical of other homesites in the area. The site was located in close proximity to Abigail Brook and to historic trails. Artifacts included historic ceramics (creamware, pearlware, American Jackfield, Rockingham, redware) tobacco pipe fragment, a 1749 copper coin, faunal remains (bone and shell), architectural debris (brick, hand-wrought and machine-cut nails, and window glass), and a few personal items (copper spoon, buttons, and fragment of a writing slate). These artifacts were associated with a plowzone and raised earthen platform. The platform was hypothesized to have been associated with the nineteenth century Native house, possibly indicating that it was of similar construction to some identified elsewhere on Cape Cod and the Islands (Davin 1990: 60).

Table 2. Historic Sites Within 2 km of the Project Area

Site	Name	Туре	Date
HA-11	Punkhorn Point Cemetery	Burial Ground	19 th century
HA-12	S. Mashpee School/Ockway Chapel	School/ Chapel	19 th century
HA-16	Heron Way Site	Redeposited Burial Ground	19 th century
HA-19	The 55 Acres	Traditional Cultural Property	19 th to 20 th century
HA-21	Bourne/ Avant House	Standing House	19 th to 20 th century
HA-22	Sophronia Young Homesite	Homesite	19 th century

D. Historic Archaeological Potential

General historic settlement patterns have been developed for historical resources in New England, and these can be used to help predict where historic archaeological sites may be found (Handsman 1981; Paynter 1982; Waldbauer 1986; Wood 1978). Economic geographers have also formulated models on historic settlement that take into account variables such as proximity to bodies of water, arable soils, granite outcrops, and gravel and clay beds (Haggett et al. 1977). Proximity to settlement concentrations, freshwater springs, streams, and sources of waterpower also affect where people will settle.

Historic Archaeological potential can be stratified as follows:

High/ Moderate potential: Within 100 m. of a major transportation network, within 100 m. of fresh water and within 1000 m. of a settlement concentration

Low Potential: >100 m. of a major transportation network, >100 m. of fresh water, and >1000 m. of a settlement concentration

The project area is predicted to have a moderate probability for containing historic remains. There do not appear to be any major historic developments at or near the project area according to late 18th through 20th century historic maps, although Red Brook Road as a major traveled route was in existence since at least 1831. Early historic accounts and the distribution of Mashpee Wampanoag sites within a couple of kilometers of the project area make it clear that the broader area was intensively occupied and utilized by the Mashpee Wampanoags during the Contact period and the time to follow prior to the first available historic maps. In addition, the Calhoun map from 1877 (see Figure 7) indicates the project area was part of a parcel owned by Aaron Keeter, with the Keeter family being well known in the history of the Mashpee Wampanoag tribe.

As with subsequent Euroamerican occupations, early historic Wampanoag settlement was concentrated around the major bays to the east and west, although areas further inland were likely utilized for agriculture and the procurement of wild resources. Any discovered historic archaeological remains would therefore likely be in the form of Contact period to post-Contact Native American settlement and resource procurement activity, and could therefore include a mix of more durable prehistoric and historic materials types, particularly aboriginal lithic remains and early Euroamerican ceramics, and possibly feature contexts such as hearths, earthfast structural traces, and burial remains. Alternatively, historic remains are likely to include incidental materials related to the use of the adjacent road since the early 19th Century, including but not limited to bottle glass, household ceramic fragments, and modern materials.

V. METHODS

A. Statement of Purpose and Justification

The research design for the Intensive (Locational) Survey was designed to examine the natural and historical aspects of the project area and to place the project area within a prehistoric and historic context associated with the Town of Mashpee and the broader Southeastern Massachusetts region. The data collected through the analysis of environmental factors associated with the project area (soil types, topographical conditions, fresh and salt water resources), when combined with an examination of the known Native and historic archaeological resources in the Town of Mashpee, and the wider Cape Cod area, allows archaeological models to be developed that can help predict the likelihood of Native and historic resources within the project area.

The project area has a moderate potential for ancient Native American archaeological resources given its nearly level to gently sloping setting with excessively drained soils. The project area is relatively distant to the nearest major water sources, such as Ockway Bay, but is within several

hundred meters of much smaller wetlands that could have attracted resource procurement and hunting activities. Further, early historic occupations by Euroamericans could have prompted more intensive Contact period and post-Contact Native American occupations further inland, with the known distribution of historic Mashpee Wampanoag sites being widespread and diverse within a couple of kilometers of the project area. While a prior professional archaeological assessment survey concluded no further archaeological evaluation was required, correspondences from the Mashpee Wampanoags responding to the assessment survey report indicated the need for further evaluation based on the considerations given above.

The project area features a lower potential for significant Euroamerican cultural resources. Historic maps reveal no substantial use of this area, until the construction of the Mashpee fire station building. Red Brook Road, however, does appear on historic maps as early as 1831, and there is some chance that particular uses of the property were not recorded on the maps, which could include late historic Mashpee Wamapanoag sites, or more likely, incidental debris from the use of the road through time.

B. Research Design

1. Theory

Archaeological Consulting Services (ACS) was contracted by Lucas Environmental, LLC of Quincy, Massachusetts, on behalf of Blue Sky Towers, LLC, to conduct an intensive (locational) archaeological survey of the project area for a proposed access road and cell tower.

The prehistoric archaeological potential of the project area was developed by analyzing all the environmental and topographic characteristics of the area, recorded archaeological sites, the distribution of identified prehistoric resources within two km of the project area, and the documentary records relating to the town and more specifically to the project area. A predictive model for the probability of encountering prehistoric archaeological resources was developed, based upon proximity to water, soil characteristics and drainage, slope, and disturbance.

This model relies on site characteristics identified by Dincauze and Meyer, who in 1977 compiled data on site locations in Essex and Middlesex Counties, and found that 47% and 76%, respectively, of the identified sites occupy land with less than an 8% slope on excessively well-drained soils; whereas 10-20% lie on well-drained soils on 8-15% slopes. In 1983, Kenyon and McDowell studied the distribution of sites along the Merrimack River drainage basin and found 30% of sites on alluvial deposits, 40% on river terraces, and 20% on fluvioglacial deltas, outwash, and lakebeds (Kenyon and McDowell 1983). Almost 90% of the sites were situated within 1000 m of the river, with 60% situated within 200 m, and 75% of these at no more than 20 m in elevation above the river. This latter study concluded that during both the Archaic and Woodland eras, sites were situated close to the river on alluvial or terrace settings.

The coarse model that is used in this study to establish prehistoric sensitivity for the project area indicates a moderate sensitivity ranking, given nearly level to gently sloping land and

excessively drained soil contexts. However, the nearest water sources are minor wetlands at a relatively great distance to the project area.

Prehistoric archaeological remains are likely to be in the form of a hunting camp or resource extraction site. Feature contexts could include post-molds, shell middens, trash pits, or storage pits indicative of longer term occupations, although these are less likely than short-term hearth features. Artifact classes could include lithic tools and debitage, and possibly ritual groundstone items, but are not likely to include pottery or other materials indicative of longer term occupations. Any charcoal deposits or other organic materials offer the ability to assign or confirm chronological designations based on diagnostic artifacts.

The historic sensitivity of the property is more directly established through historic records and maps. Historic maps indicate no structures on the project property until recently. However, the intensive use of the broader area by Mashpee Wampanoag well into the historic era increases the likelihood that inland areas such as that represented by the project area were utilized in support of more major settlements located closer to the major bays and rivers. Early historic Mashpee Wampanoag remains could include those related to shorter-term occupations, such as a mix of aboriginal lithic material and early historic Euroamerican ceramics, as well as traces of earthfast structures, hearths, and isolated burials. More likely, the project area may reveal late historic debris related to the use of Red Brook Road that appears on early 19th Century maps, and modern materials.

2. Testing Strategy

A testing strategy utilizing systematic 7.5-meter shovel testing was proposed within the compound area and surrounding area of potential affect (APE), including the unpaved portion of the proposed access route (Figure 10). A fully saturated systematic testing grid was established in 7.5 m intervals. No tests were conducted along the first part of the proposed access, which is through the existing driveway and parking lot of the fire station. Prehistoric sites as well as predicted historic activity areas are often fairly small, and a 7.5 m sampling interval will typically yield a very high probability for locating sites 12 m or more in diameter, using 30 x 30 cm shovel test pits (Lightfoot 1986: 493-494). Increasing the test pit size to 50 x 50 cm and/or decreasing the distance between test pits increases the likelihood of identifying sites smaller than 12 m. Kintigh (1988:702-703) noted that small test pits were likely to yield artifacts on highdensity sites, whereas larger test pits proved more favorable for artifact recovery on lower density sites, similar to those commonly found in New England (Kintigh 1988: 702-703). The types of potential prehistoric sites predicted for the project area, including small hunting camps or those related to resource extraction, have a high probability for being encountered by using this testing strategy of relatively tight intervals. The same testing density is sufficient for post-Contact historic sites. Fieldwork was directed by a Principal Investigator of ACS, which has the equipment necessary to successfully carry out the planned field work (transits, Brunton compasses, long measuring tapes, shovels, screens, tarps, soil sample and artifact collection bags, Munsell Soil Color charts, flagging tape).

Intensive (locational) survey testing (see Figure 10) consisted of twenty-two (22) 50-cm square systematic shovel tests within the project area, placed at 7.5-meter grid intersections in all non-disturbed portions of the project area to be impacted by construction. The excavation of these tests allowed for full coverage of the portions of the project area to be impacted bearing moderate to high sensitivity for prehistoric and historic cultural resources. There were also eight (8) more 50-cm square shovel tests reserved for delimiting any artifact find locations and further investigating any surface finds that may indicate subsurface cultural resources as a result of a pedestrian surface survey conducted along the length of the proposed access road route and within and around the compound area, although none were required.

In the event that any features are encountered, each feature is mapped and sketched in plan view, photographed, and then covered and backfilled for potential subsequent excavation. Archaeologists prepare photographs and measured drawings of any visible above-ground cultural features such as structures or structural remains, although none were recorded for the current survey.

If human remains are encountered, then the procedures outlined in Massachusetts Unmarked Burial Law (Massachusetts General Laws c.7, s.38A; c.38, s.6; c.9, ss.26A & 27C; and c.114, s.17; all as amended) are followed, as no State Archaeologist permitee is authorized to excavate human skeletal remains without obtaining a Special Permit (950 CMR 70.20). In the event that human skeletal remains are encountered, archaeologists cease excavation and consult first with the MHC, and then with the state medical examiner and project proponent as advised by the MHC about further procedures. There were no human remains encountered for the current project.

All shovel tests measured 50 x 50 cm. square and were excavated through the B2 subsoil to the C substratum horizon when possible. Archaeologists screen all soils through quarter-inch mesh screens to search for cultural material. Recovered materials are bagged, and recovery locations are documented for subsequent processing and analysis. The provenience of all recovered materials are recorded on individual bags. All shovel test locations, stratigraphy, and contents are recorded on standardized forms and maps. All soil colors are recorded using Munsell Soil Color Charts.

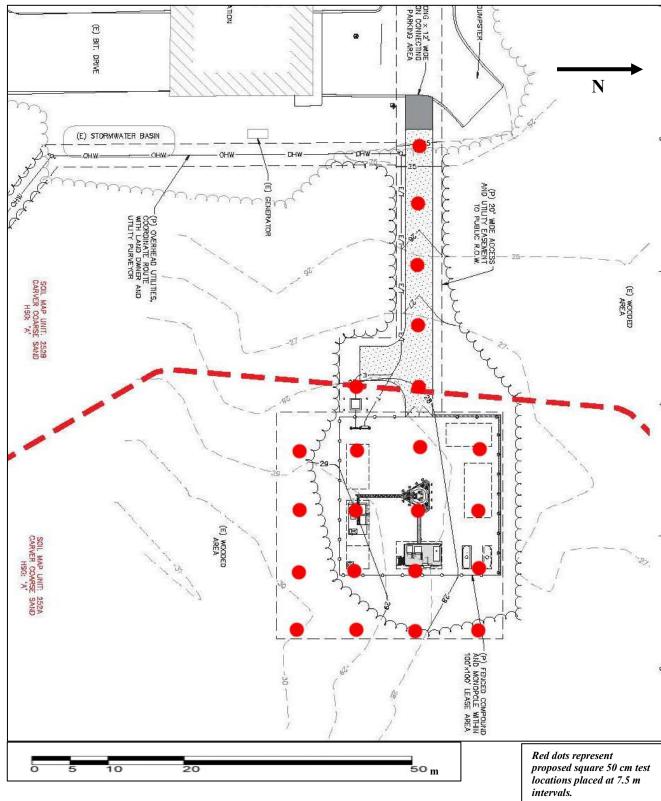


Figure 10. Proposed Intensive Survey Testing. 1:500 scale.

C. Laboratory Processing and Analysis

For laboratory processing, ACS (Archaeological Consulting Services) utilized an 850-square-foot facility with a climate-controlled and alarmed office / laboratory of ACS in a renovated historic commercial structure at 118 Whitfield Street in Guilford, Connecticut. All recovered cultural material was separated by provenience, cleaned, dried on drying racks, identified, described, and cataloged for analysis at the laboratory of ACS. Although none were found for the current survey, artifacts were planned to be placed in labeled acid-free plastic bags in acid-free boxes for curation at The Public Archaeology Laboratory (PAL) in Pawtucket, Rhode Island. When artifacts are found, the original excavation forms, maps, catalog sheets, and a copy of the final report accompany the assemblage to the curation facility. ACS retains copies of all documentary material on acid free archival quality paper.

Artifact analysis is focused on identifying the nature, period of manufacture, possible use, and interpretation of recovered materials. This analysis, along with the general findings from the intensive survey and background research, are used to determine if further testing of the project area in the form of a site examination is warranted.

The laboratory facilities are equipped with cataloging computers, word processing / graphic production computers, digital scales and metric calipers, 100x magnification lens, digital microscope, manual microscope, measuring tapes, digital and conventional photography stations, and a scanner.

VI. Results

A. Test Distribution and Stratigraphy

There was a total of 22 systematic shovel tests excavated for the Phase I intensive survey. Recall that the proposed compound is only about 30 meters (100 feet) square, with the 40 meter (120 feet) long, four meter (12-foot) wide access drive extending east from the northeast corner of an existing parking lot of the fire station house on the north side of Red Brook Road (Figure 11). The bulk of the project area where the compound will be located is wooded with a secondary forest cover consisting of a mix of white pine and deciduous trees (Figure 12). Surface visibility is good at the beginning of the access extension where there is just a maintained grass cover, but becomes limited within the wooded section where there is a generous leaf and pine needle cover. Scrub growth is low to moderate, as the secondary forest cover is fairly well developed. The project area is nearly level to gently sloping, with no visible signs of disturbance at the surface. The 22 subsurface shovel tests of the survey were placed within the pad area and along the proposed access extension at 7.5-meter intervals, with a datum of N0-E0 set close to the southeast corner of the 30-meter square compound area.

Recall that the proposed compound area and access road are in a setting projected by the USDA NRCS to have units of deep and excessively drained Carver coarse sand (252A, 252B), with slopes ranging from zero to eight percent. The typical Carver soil profiles have a black surface layer of coarse sand to 18 cm deep, followed by a dark gray layer of coarse sand to 25 cm, an upper subsoil of strong brown coarse sand to 38 cm, a middle subsoil layer of yellowish brown coarse sand to 71 cm, and a lower subsoil of brownish yellow coarse sand to 81 cm, overlying a substratum of light yellowish brown coarse sand to 170 cm or more.

Tests in the field revealed soil profiles somewhat matched to the Carver ideal type, with all layers typically consisting of coarse sand (Figure 13). Typical profiles included a mast cover to about 5 cm, followed by a dark grayish brown to light brownish gray (10YR 4/2 to 6/2) upper topsoil to about 12 cm, a dark yellowish brown (10YR 4/4 to 4/6) topsoil layer to about 18 or 20 cm, a strong brown to yellowish brown (7.5YR 5/6 to 10YR 5/8) upper subsoil to about 25 or 30 cm, a brownish yellow to strong brown (10YR 6/8 to 7.5YR 5/6) lower subsoil to about 45 to 50 cm or more, and an olive yellow (2.5Y 6/6) substratum to 60 cm or more below the surface. The basic trend of lighter soils with depth held as expected, with some variation in the form of iron staining in some tests and variable substratum colors. Most tests revealed a high gravel content, particularly in deeper layers.

B. Artifact Analysis

Despite the high density of subsurface shovel tests (n=22) placed at 7.5m intervals within the access road alignment and compound area, there were no prehistoric or historic artifacts recovered or subsurface cultural feature contexts identified (Figure 14).



Figure 11. Project Area (Access Road). East view.



Figure 12. Project Area (Pad Site). East view.

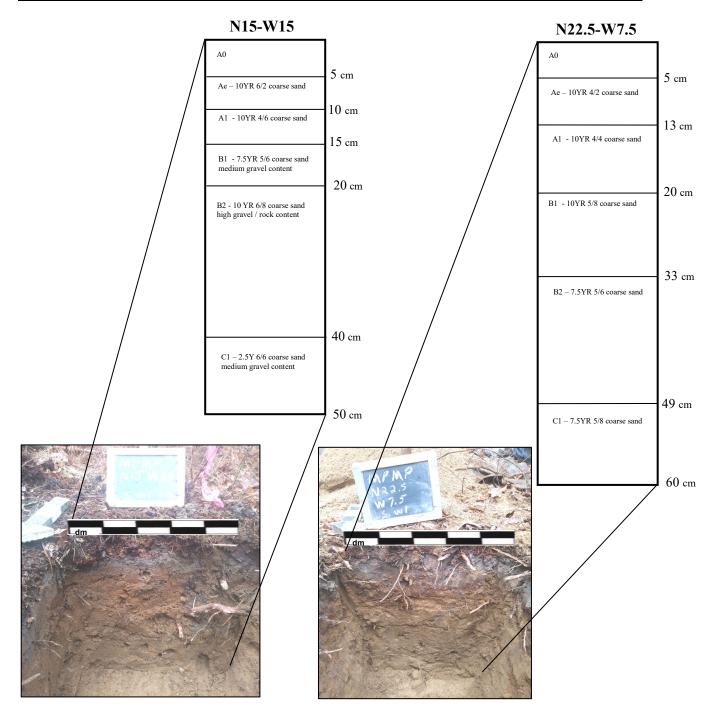


Figure 13: Stratigraphic Profiles. Stratigraphic profiles were relatively consistent throughout the project area. N15-W15 and N22.5-W7.5 represent typical profiles encountered during the survey, including mast cover to about 5 cm, followed by a dark grayish brown to light brownish gray (10YR 4/2 to 6/2) upper topsoil to about 12 cm, a dark yellowish brown (10YR 4/4 to 4/6) topsoil layer to about 18 or 20 cm, a strong brown to yellowish brown (7.5YR 5/6 to 10YR 5/8) upper subsoil to about 25 or 30 cm, a brownish yellow to strong brown (10YR 6/8 to 7.5YR 5/6) lower subsoil to about 45 to 50 cm or more, and an olive yellow (2.5Y 6/6) substratum to 60 cm or more below the surface. "MPMP" on sign board refers to project abbreviation for "Mashpee / Mashpee cell tower"; "S. wl" is abbreviation for "South wall."

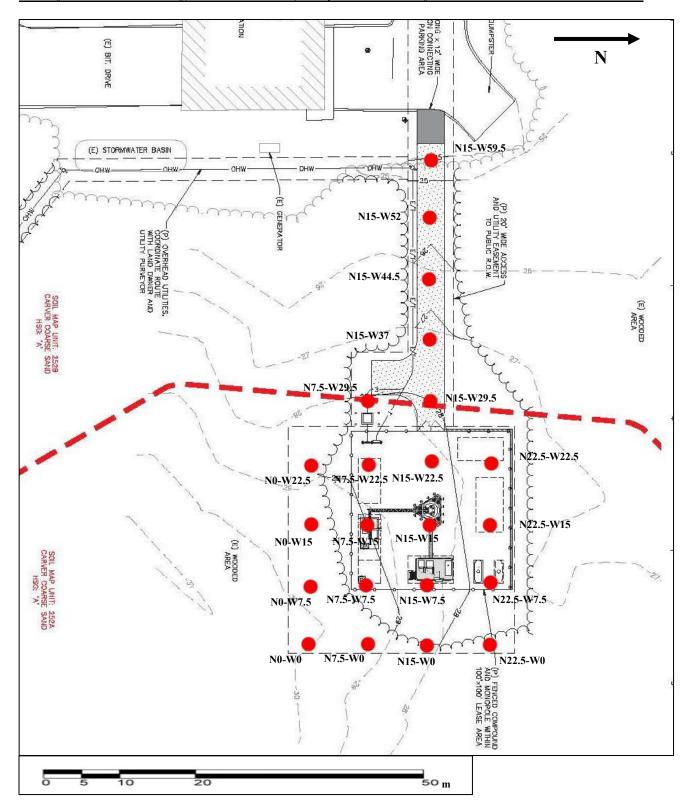


Figure 14: Distribution of Tests. 1:500 scale (20mm = 10m). Tests in graphic are not to scale – red dots show location of 50cm square tests at 7.5 meter intervals. No artifacts were recovered. Testing pattern depicted on the site plan drafted by Pro Terra Design Group, LLC of Hadley, Massachusetts, 2017 (see Figures 3 and 4 for larger project area context).

VII. Conclusion

A. Cultural Resource Summary

There were no cultural resources identified during the Phase I intensive (locational) archaeological survey of the project area. The excessively drained soils of the project area would have been highly conducive to prehistoric use and settlement, although the great distance to nearest substantial water source would have made intensive use less attractive. Historically, the project area was part of a larger lot belonging to the Keeter family, known to have associations with the Mashpee Wampanoags of the area, although no related artifacts or feature contexts were recorded. Despite relatively close proximity to the historic Red Brook Road that was laid out in the early 19th Century, there do not appear to have been historic developments within the project area.

B. Recommendations

In the absence of any cultural materials found within the proposed cell phone tower compound area and associated access road despite a high density of testing, ACS recommends no further archaeological conservation efforts for the proposed project. If site plans change substantially to include other parts of the larger project property, further survey work may be warranted following consultation with the Massachusetts Historical Commission (MHC).

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The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth Massachusetts Historical Commission

June 8, 2018

Gregory F. Walwer Co-Principal Investigator Archaeological Consulting Services 10 Stonewall Lane Guilford CT, 06437 Craig S. Chartier
Co-Principal Investigator
Plymouth Archaeological Rediscovery Project
355 Orchard Street
New Bedford MA, 02740

RE: Blue Sky Towers Wireless Facility, 101 Red Brook Road, Mashpee, MA. MHC #RC.63971.

Dear Mr. Walwer and Mr. Chartier:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the draft archaeological report, received May 9, 2018, for the proposed project referenced above.

Please submit two copies of the revised report that addresses the following comments. Please also submit a CD with a Word file listing the report author, date, report title, page count and the archaeological abstract.

Please revise the abstract following the State Archaeologist's guidelines for abstracting.

Please review the accuracy of the scale added to Figure 13 (pg. 34). The scale indicates that the units are larger than 50cm. Please revise the figure caption to explain "MPMP" and "S wl" in the profile photographs. Please revise the profile drawing for N 22.5-W7.5 to not obscure the profile photograph.

Because no artifacts were recovered during the investigation, please revise the Figure 14 (pg. 35) caption title to read "Distribution of Shovel Test Pits."

These comments are offered to assist in compliance with Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 Fed. Reg. 190)(1983)), and 950 CMR 70. If you have any questions, please contact Jonathan K. Patton, Staff Archaeologist, at this office.

Sincerely,

Brona Simon

Executive Director

State Historic Preservation Officer

State Archaeologist

Massachusetts Historical Commission



The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth Massachusetts Historical Commission

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PERM	IIT TO CONDUC	T ARCHAEOLOGICAL F	'IELD INVESTIGAT	ION
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Permit Number	3820	Date of Issue	April 2, 2018	
		Expiration Date	April 2, 2019	
Aı	chaeological	. Consulting Servic	es	is hereby
authorized to co	nduct an arch	naeological field	investigation pu	rsuant to
Section 27C of C	hapter 9 of 0	General Laws and a	cording to the	regulations
outlined in 950	CMR 70.00.			
Sky Tower Wirel	ess Telecomm	unications Facilit	y, 101 Red Brook	Road, Mashpee
		Project Location	ı	
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Brona Simon, Sta Massachusetts Hi				



May 7, 2018

Secretary of the Commonwealth Massachusetts Historical Commission Attn: Ms. Brona Simon, SHPO & Executive Director 220 Morrissey Boulevard Boston, MA 02125-3314

Re: New Tower Submission Packet – FCC Form 620

TCNS Notification ID# 162632

Site Name: Mashpee Fire Station #2; Site #: MA-5112

101 Red Brook Road, Mashpee, MA 02649

Dear Ms. Simon,

Blue Sky Towers II, LLC proposes to construct a wireless facility at 101 Red Brook Road in Mashpee, Massachusetts. In accordance with the Federal Communication Commission (FCC) National Environmental Policy Act (NEPA) rules and Section 106 of the National Historic Preservation Act (NHPA), this telecommunications facility is being evaluated for its potential effects to districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture that are listed, or potentially eligible, for listing in the National Register of Historic Place (NRHP). Based upon the nature of the project and the location of the proposed telecommunications facility, this project does not meet the exclusions listed in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), dated September 2004. Therefore, the project is required to undergo Section 106 Review with the Massachusetts Historical Commission State Historic Preservation Office (SHPO).

The proposed telecommunications facility will be located within a wooded area east of the existing fire station. The lease area for the facility is approximately 100-foot by 100-foot, and will contain a 150-foot tall monopole with an optional six-foot lightning rod for a total height of 156 feet. Associated telecommunications equipment will be located outside at the base of the structure within the fenced compound surrounded by a six-foot tall chain link fence with barbed wires, while a pad-mounted transformer will be located just outside the compound. The facility will be accessed via a 12-foot wide gravel driveway along a 20-foot wide access and utility easement, which will extend from the existing access road behind the fire station. This facility, and others like it, will allow Blue Sky Towers II, LLC to provide high quality wireless communication services to the community. Note that the Applicant's name has changed from Blue Sky Towers, LLC to Blue Sky Towers II, LLC since the original TCNS filing

Attached you will find the Project Summary Form and the New Tower Submission Packet (FCC Form 620), which detail the proposed facility and the evaluation of measures taken to identify, assess, and make determinations of effect on the impacts of the new tower on historic sites.

A Cultural Resources Report entitled "Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA" was prepared by Nicolas Avery. Based upon this assessment, there will be no adverse effect on any historic properties identified.



An Archaeological Resource Assessment of Direct Effects was completed by Barbara Donohue, RPA. Based on the results of the assessment, no further archaeological investigation was recommend. The Mashpee Wampanoag Tribe requested a Phase 1 Intensive (Locational) Archaeological Survey (MHC Permit # 3820) which was completed by Archaeological Consulting Services (ACS) in May 2018. ACS recommends no further archaeological conservation efforts for the proposed project. The Phase 1 Intensive (Locational) Archaeological Survey report is being submitted to MHC directly by ACS today, therefore, LE has not included a copy in the New Tower Submission Packet as it will be on file.

We respectfully request a written opinion from your office regarding the potential effect or no adverse effect of the proposed telecommunications facility on resources under Section 106. At your earliest convenience, please forward correspondence to my attention at Lucas Environmental, LLC, 500A Washington Street, Quincy, MA 02169. Please do not hesitate to contact me at 617.405.4140 if you have any questions or concerns about the proposed project or the information contained in the New Tower Submission Packet.

If you have any questions, please do not hesitate to contact me. Thank you for your consideration in this matter.

Sincerely,

LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, Manager, PWS

Environmental Consultant

T: 617.405.4140; F: 617.405.4465 E-mail: <u>cml@lucasenvironmental.net</u>

Enclosures: Project Summary Form

New Tower Submission Packet (FCC Form 620)

cc: Blue Sky Towers II, LLC – Sean Gormley (electronic copy) ProTerra Design Group, LLC – Tom Johnson (electronic copy)



PROJECT SUMMARY FORM

Site ID:	Site Address:	Site	Type (choose one):
Mashpee Fire Station #2	-	☑	Raw Land
MA-5112			Tower Colocation
		[
			Tower Replacement

Site Location

Latitude: 41° 35' 2.89" N Longitude: 70° 29' 3.08" W

Existing Conditions

The proposed telecommunications facility is sited on a portion of a parcel located at 101 Red Brook Road in Mashpee, Massachusetts (Map 104, Lot 2). The property is an approximate 37-acre parcel which contains the Mashpee Fire Station (#2), parking lot, stormwater structures, and undeveloped woodlands. The woodlands can be characterized as a mixed oak-white pine forest. The site is bound to the west, north, and east by forested uplands, and to the south by Red Brook Road. No wetland resource areas are located in the vicinity of the project work areas.

Project Description

The proposed telecommunications facility will be located within a wooded area east of the existing fire station. The lease area for the facility is approximately 100-foot by 100-foot, and will contain a 150-foot tall monopole with an optional six-foot lightning rod for a total height of 156 feet. Associated telecommunications equipment will be located outside at the base of the structure within the fenced compound surrounded by a six-foot tall chain link fence with barbed wires, while a pad-mounted transformer will be located just outside the compound. The facility will be accessed via a 12-foot wide gravel driveway along a 20-foot wide access and utility easement, which will extend from the existing access road behind the fire station.

Ground Disturbance

Ground disturbance and tree clearing will be required for the planned telecommunications tower, associated equipment, fencing, and utilities.

FCC Form 620

FCC Wireless Telecommunications Bureau New Tower ("NT") Submission Packet

Approved by OMB 3060 – 1039 See instructions for public burden estimates

Notification Date: 7AM EST 05/09/2018

File Number: 0008202690

General Informa	tion
-----------------	------

1) (Select only one) (NE) NE – New U	A – Upd	ate of A	pplication	WD – Wi	thdrawal of Application	on		
If this application is for an Update or V currently on file.	/ithdraw	al, ente	r the file number	r of the pending	gapplication	File Number:		
			Applicant	t Informatio	n			
3) FCC Registration Number (FRN): 002	75081°	18						
4) Name: Blue Sky Towers II, LLC								
Contact Name								
5) First Name: Sean			6) MI:	7) Last Name	: Gormley		8) Suffix:	
9) Title: Project Manager								
Contact Information								
10) P.O. Box:	And /Or	11) St	treet Address: 3	352 Park Stre	et, Suite 106			
12) City: North Reading				13) State: MA	14) Zip Code	: 01864		
15) Telephone Number: (508)530-3580				16) Fax Nu	16) Fax Number:			
17) E-mail Address: seang@bluesky	tower.c	com		•				
			Consult	ant Informa	tion			
18) FCC Registration Number (FRN): 00	20654	711						
19) Name: Lucas Environmental, L	LC							
Principal Investigator								
20) First Name: Christopher			21) MI: M	22) Last Nam	e: Lucas		23) Suffix:	
24) Title: Principal/Environmental C	onsult	ant						
Principal Investigator Contact Infor	mation							
25) P.O. Box:	And /Or		treet Address: 5	00A Washin	gton Street			
27) City: Quincy					28) State: MA	29) Zip Code	02169	
30) Telephone Number: (617)405-4140)			31) Fax Nu	umber: (617)405- 4	1465		
32) E-mail Address: cml@lucasenvir	onmen	tal.net	i .	1				
<u> </u>								

Professional Qualification			
33) Does the Principal Investigator satisfy the Secr	retary of the Interi	or's Professional Qualification Standards?	() <u>Y</u> es (X) <u>N</u> o
34) Areas of Professional Qualification:			•
() Archaeologist			
() Architectural Historian			
()Historian			
() Architect			
(X) Other (Specify) Environmental Consu	Itant/NEPA Sp	ecialist	
dditional Staff			
35) Are there other staff involved who meet the Pro	ofessional Qualific	cation Standards of the Secretary of the Interior?	(X) <u>Y</u> es () <u>N</u> o
"YES," complete the following:			
36) First Name: Nicolas	37) MI: C	38) Last Name: Avery	39) Suffix:
40) Title: Architecture & Landscape Histori	an		
41) Areas of Professional Qualification:			
() Archaeologist			
(X) Architectural Historian			
() Historian			
() Architect			
() Other (Specify)			
36) First Name: Gregory	37) MI: F	38) Last Name: Walwer	39) Suffix:
40) Title:			
41) Areas of Professional Qualification:			
(X) Archaeologist			
() Architectural Historian			
() Historian			
() Architect			

) Other (Specify) _

Site Information

Tower Construction Notification System		
1) TCNS Notification Number: 162632		
Site Information		
2) Positive Train Control Filing Subject to Expedited Treatment Under Program Con	mment: () <u>Y</u> es (X) <u>N</u>	<u>N</u> o
3) Site Name: Mashpee Fire Station #2		
4) Site Address: 101 Red Brook Road		
5) Detailed Description of Project:		
A 150-foot monopole is proposed with an optional 6-foot lightning ro at the base of the structure within a 5,000 square foot lease area. Not finalized.		
6) City: Mashpee	7) State: MA	8) Zip Code: 02649
9) County/Borough/Parish: BARNSTABLE	1	
10) Nearest Crossroads: Great Neck Road South and Red Brook Road		
11) NAD 83 Latitude (DD-MM-SS.S): 41-35-02.9	(X	() <u>N</u> or () <u>S</u>
12) NAD 83 Longitude (DD-MM-SS.S): 070-29-03.1	() <u>E</u> or (X) <u>W</u>
Tower Information		
13) Tower height above ground level (include top-mounted attachments such as ligh	ntning rods): 47.5	() Feet (X) Meters
14) Tower Type (Select One):		
() Guyed lattice tower		
() Self-supporting lattice		
(X) Monopole		
() Other (Describe):		
Project Status		
15) Current Project Status (Select One):		
(X) Construction has not yet commenced		
() Construction has commenced, but is not completed C	Construction commenced on:	:
() Construction has been completed C	Construction commenced on:	·
Construction completed on:		

Determination of Effect

14)	Direct Effects (Select One):
(X) No Historic Properties in Area of Potential Effects (APE)
() No Effect on Historic Properties in APE
() No Adverse Effect on Historic Properties in APE
() Adverse Effect on one or more Historic Properties in APE
15)	Visual Effects (Select One):
15)	Visual Effects (Select One):) No Historic Properties in Area of Potential Effects (APE)
15)	
() No Historic Properties in Area of Potential Effects (APE)

Tribal/NHO Involvement

Have Indian Tribes or Native Hawaiian Organiz: significance to historic properties which may be effects?			(X) <u>Y</u> es () <u>N</u> o				
2a) Tribes/NHOs contacted through TCNS Notifica	ation Number:162	Number of Tribes/NHOs.	6				
2b) Tribes/NHOs contacted through an alternate s			Number of Tribes/NHOs:				
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Bad River Band of Lake	e Superior Tribe	of Chippewa Indians					
Contact Name							
5) First Name: Edith	6) MI:	7) Last Name: Leoso	8) Suffix:				
9) Title: THPO	•		-				
Dates & Response							
10) Date Contacted	11) Date	e Replied					
(X)No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							
Tribe/NHO Contacted Through TCNS							
3) Tribe/NHO FRN:							
4) Tribe/NHO Name: Keweenaw Bay Indian	Community						
Contact Name							
5) First Name: Gary	6) MI:	7) Last Name: Loonsfoot	8) Suffix: Jr				
9) Title: THPO			•				
Dates & Response							
10) Date Contacted	11) Date	e Replied _10/31/2017					
()No Reply							
() Replied/No Interest							
(X) Replied/Have Interest							
() Replied/Other							

Tribal/NHO Involvement

Have Indian Tribes or Native Hawaiian Organization significance to historic properties which may be affe effects?			(X) <u>Y</u> es () <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification	Number:1626	Number of Tribes/NHOs: 6	
2b) Tribes/NHOs contacted through an alternate system		Number of Tribes/NHOs: _0_	
Tribe/NHO Contacted Through TCNS			
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Lac Vieux Desert Band of L	ake Superior	r Chippewa Indians	
Contact Name			
5) First Name: Daisy	6) MI:	7) Last Name: McGeshick	8) Suffix: Ms
9) Title: THPO and NAGPRA Representative			.
Dates & Response			
10) Date Contacted	11) Date	Replied	
()No Reply			
() Replied/No Interest			
() Replied/Have Interest			
(X) Replied/Other			
Tribe/NHO Contacted Through TCNS			
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Mashpee Wampanoag India	an Tribe		
Contact Name			
5) First Name: Ramona	6) MI:	7) Last Name: Peters	8) Suffix:
9) Title: THPO			
Dates & Response			
10) Date Contacted	11) Date	Replied 01/12/2018	
()No Reply			
() Replied/No Interest			
(X) Replied/Have Interest			
() Replied/Other			

Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations significance to historic properties which may be affected effects?			(X) <u>Y</u> es () <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification	Number:1626	Number of Tribes/NHOs: 6	
2b) Tribes/NHOs contacted through an alternate system		Number of Tribes/NHOs: 0	
Tribe/NHO Contacted Through TCNS			
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Narragansett Indian Tribe			
Contact Name			
5) First Name: Sequahna	6) MI:	7) Last Name: Mars	8) Suffix:
9) Title: Program Manager			
Dates & Response			
10) Date Contacted	11) Date	Replied	
()No Reply			
() Replied/No Interest			
() Replied/Have Interest			
(X) Replied/Other			
Tribe/NHO Contacted Through TCNS			
3) Tribe/NHO FRN:			
4) Tribe/NHO Name: Wampanoag Tribe of Gay H	lead-Aquinna	ah	
Contact Name		·	
5) First Name: Bettina	6) MI:	7) Last Name: Washington	8) Suffix:
9) Title: Senior Cultural Resource Monitor			
Dates & Response			
10) Date Contacted	11) Date	Replied	
(X)No Reply			
() Replied/No Interest			
() Replied/Have Interest			
() Replied/Other			

Other Tribes/NHOs Contacted

Tribe/NHO Information							
1) FCC Registration Number (FRN):							
2) Name:							
L Contact Name							
3) First Name: 4) MI:				5) Last Nam	e:		6) Suffix:
7) Title:							
Contact Information							
8) P.O. Box:	And /Or	9) Str	reet Address:			 	
10) City:				-	11) State:	12) Zip Code:	:
13) Telephone Number: 14) Fax Number:							
15) E-mail Address:				•			
16) Preferred means of communication:							
() E-mail							
() Letter							
() Both							
Dates & Response							
17) Date Contacted			18) Date R	Replied			
() No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							

Historic Properties

Properties Identified						
1) Have any historic properties been identified within the APEs for direct and visual effe	ect?		(x) <u>Y</u> es () <u>N</u> o	
Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?) <u>N</u> o	
3) Are there more than 10 historic properties within the APEs for direct and visual effect if "Yes", you are required to attach a Cultural Resources Report in lieu of adding the			(X) <u>Y</u> es () <u>N</u> o	
Historic Property						
4) Property Name:						
5) SHPO Site Number:						
Property Address						
6) Street Address:						
7) City: 8) State: 9) Zip Co				Code:		
10) County/Borough/Parish:						
Status & Eligibility						
11) Is this property listed on the National Register?						
Source:			() <u>Y</u> es () <u>N</u> o	
12) Is this property eligible for listing on the National Register?				,		
Source:			() <u>Y</u> es () <u>N</u> o	
13) Is this property a National Historic Landmark?			() <u>Y</u> es () <u>N</u> o	
14) Direct Effects (Select One):						
() No Effect on this Historic Property in APE						
() No Adverse Effect on this Historic Property in APE						
() Adverse Effect on this Historic Property in APE						
15) Visual Effects (Select One):						
() No Effect on this Historic Property in APE						
() No Adverse Effect on this Historic Property in APE						

) Adverse Effect on this Historic Property in APE

Local Government Involvement

Local Government Agency							
1) FCC Registration Number (FRN):							
2) Name: Town of Mashpee Planni	ng Boa	ard					
Contact Name			_				
3) First Name: F. Thomas			4) MI:	5) Last Nam	ne: Fudala		6) Suffix:
7) Title: Town Planner							
Contact Information							
8) P.O. Box:	And /Or	9) Str	eet Address: 1	6 Great Nec	ck Road North		
10) City: Mashpee					11) State: MA	12) Zip Code:	02649
13) Telephone Number: (508)539-140 6	0			14) Fax I	Number:		
15) E-mail Address:							
16) Preferred means of communication:							
()E-mail							
(X) Letter							
() Both							
Dates & Response							
17) Date Contacted 10/26/2017			18) Date F	Replied			
(X) No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							
Additional Information							
19) Information on local government's role or interest (optional):							
Local authority for land use deve	lopme	nt pern	nitting. Town	Planner m	ay have changed sin	ce initial conta	ct.

Other Consulting Parties

Other Consulting Parties Contacted							
1) Has any other agency been contacted and invited to become a consulting party?					(X) <u>Y</u> es() <u>N</u> o	
Consulting Party							
2) FCC Registration Number (FRN):							
3) Name: Town of Mashpee Histori	c Com	mission					
Contact Name							
4) First Name: Ava		5) MI:	6) Last Name	: Costello		7) Suffix:	
8) Title: Chairman						•	
Contact Information							
9) P.O. Box:	And /Or	10) Street Address: 1	6 Great Nec	k Road North			
11) City: Mashpee				12) State: MA	Code: 02649		
14) Telephone Number: (508)539-1400)		15) Fax Nı	15) Fax Number:			
16) E-mail Address:							
17) Preferred means of communication:							
() E-mail							
(X) Letter							
() Both							
Dates & Response							
18) Date Contacted 10/26/2017		19) Date Re	eplied				
(X) No Reply							
() Replied/No Interest							
() Replied/Have Interest							
() Replied/Other							
Additional Information							
20) Information on other consulting partie	s' role o	or interest (optional):					

Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

SHPO/THPO	
Name: Massachusetts Historical Commission	

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name:			
SHPO/THPO Name:			
SHPO/THPO Name:	 	 	

Certification

I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.					
Party Authorized to Sign					
First Name: Christopher	MI: M	Last Name: Lucas		Suffix:	
Signature: Christopher M Lucas			Date:	05/08/2018	
FAILURE TO SIGN THIS ARRIVOATION MAY RESULT IN DISMISSAL OF THE ARRIVOATION AND FORESTURE OF ANY FEES DAID					

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

Attachments:

Туре	Description	Date Entered
Resumes/Vitae	Resume - Lucas	05/07/2018
Resumes/Vitae	Resume - Avery	05/07/2018
Resumes/Vitae	Resume - Walwer	05/07/2018
Tribal/NHO Involvement	THPO Correspondence	05/07/2018
Local Government Involvement	Local Government	05/07/2018
Public Involvement	Public Notice	05/07/2018
Local Government Involvement	Consulting Parties	05/07/2018
Additional Site Information	Project Summary Form	05/07/2018
Additional Site Information	Form 620 Additional Details	05/07/2018
Photographs	Photographic Documentation	05/07/2018
Map Documents	USGS Map	05/07/2018
Area of Potential Effects	APE Aerial Map	05/07/2018
Confidential	MHC Archaeological Permit	05/07/2018
Additional Site Information	Archaeological Assessment - Phase IA	05/07/2018
Cultural Resources Report	Cultural Resources Report	05/07/2018
Additional Site Information	Viewshed Mapping Package	05/07/2018
Additional Site Information	Photographic Simulation Package	05/07/2018
Additional Site Information	Project Plans	05/07/2018
Additional Site Information	Cover Letter	05/07/2018
Historic Properties for Visual Effects	Cultural Resources Report	05/07/2018
Historic Properties for Direct Effects	Cultural Resources Report	05/07/2018
Additional Site Information	Phase 1 Intensive (Locational) Archaeo Survey	05/08/2018



LIST OF ATTACHMENTS

Attachment 1. Consultant Information Attachments

Attachment 2. Additional Site Information

Attachment 3. Tribal/NHO Involvement

Attachment 4. Local Government

Attachment 5. Public Notice

Attachment 6. Additional Consulting Parties

Attachment 7. Areas of Potential Effects

Attachment 8. Historic Properties Identified in the APE for Visual Effects

Attachment 9. Historic Properties Identified in the APE for Direct Effects

Attachment 10. Effects on Identified Properties

Attachment 11. Photographs

Attachment 12. Maps



Attachment 1. Consultant Information Attachments

Provide a current copy of the résumé or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the Submission Packet for this proposed facility.

A current copy of the résumé for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the Submission Packet for this proposed facility is attached.



Christopher M. Lucas, PWS, CWS

Environmental Consultant | Professional Soil Scientist Land Development & Permitting

Biography

Christopher Lucas has an extensive background in ecology and wildlife biology as well as marine biology, ornithology and Geographic Information Systems (GIS). His responsibilities include preparation and coordination of the environmental science aspects of a variety of project types including railroad and roadways, residential and commercial development, and telecommunications facilities. Chris is skilled in wetland delineations, wildlife habitat evaluations and analysis, and preparation of documents associated with environmental permit applications.

Chris's expertise lies in document preparation and coordination for environmental permitting. He has prepared documentation for federal and state permits under the jurisdiction of the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Department of Environmental Protection, Department of Conservation and Recreation, Massachusetts Environmental Policy Act, Natural Heritage and Endangered Species Program, and Massachusetts Wetlands Protection Regulations. Additionally, Chris has conducted extensive local environmental permitting within New England.



Telecommunications - New England

Tasks related to environmental assessments to complete NEPA requirements, visual resource evaluations, wetland inspections, and zoning support. Coordination with federal, state and local agencies to assess wetland, waterway, stream, floodplain, threatened and endangered species, fishery, and wildlife habitat issues. Correspondence with State Historic Preservation Officers in Massachusetts, Vermont, Maine and New Hampshire as required for the evaluation of the potential visual impacts to any historical or archaeological sites. Tasks also included coordination with Tribal Historic Preservation Officers to weigh impacts in federally regulated territory. Work also involved wetland investigations and delineations for permitting under local, state and federal regulation.

Commercial Site Developments - MA

Conducted wetland delineations, wildlife habitat evaluations, and rare species surveys under local, state and federal guidelines for the construction of various commercial developments. Work included consulting and coordination with local, state and federal agencies to obtain all applicable permits required for development. Tasks also integrated wildlife and habitat evaluations for rare species to minimize and mitigate construction impacts.

Residential Site Developments - MA

Prepared and coordinated MEPA, NPDES, ACOE, DEP, DCR and local wetland permitting for various residential subdivisions throughout Massachusetts. Site development issues included endangered species work, wetland fill of Outstanding Resource Waters, work within Watershed Protection Areas, impacts to historic properties, and balancing the needs and concerns of local, state, and federal agencies.

Transportation, Railways and Roads - MA

Chris has worked on several roadway and pipeline projects of various lengths (ranging from two miles to over 25 miles) that included wetland delineation and permitting under local, state, and federal regulations. Conducted wetland delineation and wildlife surveys under state and federal guidelines for the reconstruction of the existing railway from Boston to New Bedford/Fall River for an improved commuter rail service. Work included over 25 miles of wetland delineation involving classification of vernal pools. Tasks also integrated wildlife and habitat evaluations for eighteen rare species with telemetry tracking and monitoring of such species. Duties also involved creation of a database to store and analyze all information collected.

*Some work performed while working for another firm.



Education

Cornell University Bachelor of Science, Biology (Double Concentration in Marine Biology & Ecology)

Stanford University Master of Science, Biology

UMASS – Amherst Master of Science, Soil Science

Certifications

Professional Wetland Scientist #1884 Society of Wetland Scientists

Certified Wetland Scientist (NH) #274 Joint Board of Licensure and Certification – State of NH

Registered Professional Soil Scientist Society of Soil Scientists of Southern New England

Geographic Information Systems (GIS) Certificate - San Francisco State University

Professional Affiliations

Society of Wetland Scientists

Massachusetts Association of Conservation Commissions

Association of Massachusetts Wetland Scientists

Society of Soil Scientists of Southern New England

Nicolas C. Avery Architecture & Landscape Historian 2326 East Main Road Portsmouth, RI 02871 401.330.6335

EDUCATION

1992 University of Pennsylvania, Philadelphia, Certificate in Historic Preservation
1986 Connecticut College, New London, B.A. Architectural History

PROFESSIONAL BIOGRAPHY

Mister Avery has worked in the field of Historic Preservation for two decades, working on a range of projects, from linear surveys for the gas pipeline industry, to town-wide historic surveys, to impact analysis on proposed wind turbine farms and cellular transmission towers. In March, 2012 Mr. Avery embarked on an independent career as a consultant in historic preservation to private and public clients, providing them with historic survey, documentation, and assessment of effects services.

After completing a Bachelor of Arts in Architectural History from Connecticut College in 1986, Mr. Avery entered professional practice with J.K. Roller, Architects, Philadelphia, Pennsylvania, where he created innovative design solutions for contemporary structures and focused on restoration and renovation of 18th - and 19-century buildings for residential and commercial clients. While employed with J.K. Roller, Mr. Avery developed strong mechanical drafting skills and was responsible for extensive site survey work to document existing architectural conditions as well as client presentations.

In 1988, Mr. Avery entered the Graduate School of Fine Arts, Department of Historic Preservation, University of Pennsylvania where he concentrated in Historic Landscape Preservation and earned a fellowship from his department. As an intern in the program, Mr. Avery also conducted a 3-phase restoration/interpretation/preservation plan for an historic structure on the grounds of the Morris Arboretum of the Commonwealth of Pennsylvania, in Chestnut Hill. This resulted in structure stabilization and physical restoration of footings, beams, and stone retaining walls using historically appropriate construction methods and materials. Following graduate school, Mr. Avery worked as an independent historic preservation consultant, and designed parking facilities and handicapped access at the Highlands, Fort Washington, Pennsylvania. Mr. Avery's innovative design emphasized historic landscape features and gardens designed by Wilson Eyre with a minimal of visual impact to the historical residence. Other projects included Krisheim, Chestnut Hill, Pennsylvania, a private estate designed by Peabody and Stearns, overlooking gardens designed by Frederick Law Olmsted. At Krisheim, Mr. Avery was responsible for the design, construction, and installation of 5 sets of mahogany gates to complement recent restoration of the original gardens, while incorporating elements of the architectural style of the house. From Krisheim, Mr. Avery

moved to the Stenton Mansion, Philadelphia, where he served as Assistant Administrator and Garden Historian, responsible for writing grant proposals, office and archival cataloguing, and tour direction. Mr. Avery was the first to note the remnant early 18thcentury formal gardens on the property, which were later restored. Then working as an historical gardener and greenhouse manager at the Mystic Seaport Museum, Mystic, Connecticut, Mr. Avery was responsible for mechanical drafting of historic and contemporary garden plans, construction of historical garden features, horticultural research, and historic planning. Beginning in 1996, Mr. Avery was employed by the Public Archaeology Laboratory, Inc., Pawtucket, Rhode Island, as an Architectural Projects Department Supervisor where he conduced and oversaw architectural surveys and analysis, archival research and documentary production. Mr. Avery conducted, managed, and wrote historical architectural and cultural landscape field surveys, National Register nominations, town-wide inventory survey reports, FERC documents, Section 106 compliance, and Secretary of the Interior of Standards for Historic Preservation reports, and created graphics and photography for private and public clients throughout New England.

Historic landscape design and restoration tasks occupied Mr. Avery at Albert Veri and Associates, Inc., in Providence and at Katherine Field & Associates, Inc., in Newport, Rhode Island, from 1999 to 2002. In 2005, Mr. Avery joined TRC Environmental Corporation as an Architectural Historian, where he was responsible for historic and archival research, field analysis, and survey of above-ground resources for state and local agencies. Projects included documentation and report production of historical architectural resources for local communities as well as SHPO and DOT offices.

Immediately prior to, and concurrent with his work at TRC, Mr. Avery worked as a private consultant, (Avery Design, Portsmouth, Rhode Island), specializing in high-end residential landscape design projects throughout New England and the Mid-Atlantic states. Projects ranged from contemporary design to restoration and recreation of historic gardens and garden structures.

Some of the more interesting projects involved researching and recreating lost elements of historic gardens while paying attention to contemporary access and maintenance needs. These include reclamation and redesign of mid-nineteenth century gardens at Leopold Eidlitz's 1854 "Chalet" in Newport, Rhode Island, as well as the George Slocum house (also Newport) which is popularly assumed to be a property designed by Andrew Jackson Downing. The restoration of these gardens was featured on national television. Creative responsibilities include site inventory and analysis, archival research, planning, design, historic plant selection, and compilation of maintenance manuals. Management responsibilities include project coordination and scheduling, client and contractor negotiation and project presentation. Mr. Avery has developed and supervised projects from initial concept through design and construction.

In December, 2007 Mr. Avery joined Gray & Pape as a Senior Principal Investigator in Architecture and Landscape. As a PI, Mr. Avery was in charge of supervising the staff under him and managing projects in a cost- and time-effective manner. Mr. Avery

conducted, managed, and wrote historical architectural and cultural landscape field surveys, National Register nominations, town-wide inventory survey reports, FERC documents, Section 106 compliance, wind tower and cell tower impact assessments, and Secretary of the Interior of Standards for Historic Preservation reports, and created graphics and photography for private and public clients throughout New England and the Mid-Atlantic states.

PROFESSIONAL DEVELOPMENT AND CONTINUING EDUCATION

- 1998 Section 106 Review, Advisory Council on Historic Preservation, Providence.
- 1998 Field Course in Architectural History, Myron Stachiw, Professional Consultant in Architectural History
- 2008 NCPPT Cemetery Monument Conservation Workshop, New London, CT

PROFESSIONAL SERVICE AND OUTREACH

- 2006 + Member, Design Review Commission, Zoning Department, Town of Portsmouth, Rhode Island.
- 2005+ Member, Town Center Committee, Town of Portsmouth, Rhode Island.
- 1996 Planning Committee, Mystic Seaport Museum, Mystic, Connecticut.

SELECTED HISTORY/ARCHITECTURE/ LANDSCAPE REPORTS AND PROJECTS

- 2011 Cultural Resource Review, Sunesys Fiber Optic Project, Pennsylvania. Project involved desk top research and identification of existing architectural and archaeological resources state wide using the PABHP's CRGIS system to determine any potential impacts from proposed fiber optic line installations.
- 2010-
- 2011 Cultural Resource Survey Update, Town of Chatham, Massachusetts. Completed new MHC survey forms for historic structures inventory in historic Chatham with photo documentation, assessment and narrative description. Survey also includes National Register nomination statements.
- 2009-
- 2012 Navy Wind Energy Project, Newport County, Rhode Island. Photo documentation and historical assessment of above ground resources located within view sheds associated with proposed wind turbine installations in Jamestown, Newport, Middletown, and Portsmouth Rhode Island. Project also involved photo simulation of proposed wind towers in situ.
- 2009 Cultural Resource Survey Update, City of Quincy, Massachusetts. Completed new MHC survey forms for historic structures inventory in historic Center of Quincy with photo documentation, assessment and narrative description. Survey also includes National Register nomination statements.

2009 Buckeye Kleen Energy Pipeline lateral, Middletown, Connecticut. Photo documentation and historical assessment of above ground resources located in proposed route of new low-sulfur diesel pipeline.

2008-

2011 Liberty Natural Gas Pipeline Cultural Resources investigation, New Jersey. Photo documentation and historical assessment of above ground resources located near proposed route of new natural gas pipeline traversing 4 communities 2 counties in north-central New Jersey.

2008-

- 2012 *TGP 300 Pipeline Cultural Resources investigation, Pennsylvania-New Jersey.* Photo documentation and historical assessment of above ground resources located near proposed route of new natural gas pipeline traversing 5 counties in Pennsylvania and 2 counties in New Jersey.
- 2008 Phase II Cultural Resources Investigation, Calkin Sawmill and Farmstead, Millennium Pipeline Project, Delaware and Sullivan Counties, New York. Above ground photo documentation, assessment and narrative description of historic structures and landscapes.
- 2008 AGT Kleen Energy Pipeline lateral, Middletown, Connecticut. Above ground photo documentation and assessment of remains of historic mineral mine structures.
- 2005 Architectural Survey and Documentation, I-95 Realignment Project, Stamford, CT. Report on file with the Connecticut State Historic Preservation Office.
- 1998 Architectural Survey and Documentation, United States Coast Guard EECN Base, Wildwood, NJ. Report on file with United States Coast Guard, Washington, D.C.
- 1998 *County-Wide Community History, Essex County, Massachusetts*. Report on file at the Massachusetts Historical Commission, Boston.
- 1998 *Town-Wide Architectural Survey, Town of Kingston, Massachusetts*. Report on file at the Massachusetts Historical Commission, Boston.
- 1997 Architectural and Landscape Survey, Maritimes and Northeast Pipeline, State of Maine. Report on file at the Federal Energy Regulatory Commission, Washington, D.C.
- 1997 *Town-Wide Architectural Survey, Town of Medfield, Massachusetts.* Report on file at the Massachusetts Historical Commission, Boston.
- 1997 Architectural Review and Documentation. The Normal School, Providence, Rhode Island. On file at the Rhode Island Historic Preservation and Heritage Commission.
- 1997 Architectural Review and Documentation. Food Distribution Warehouse, Providence, Rhode Island. On file at the Rhode Island Historic Preservation and Heritage Commission.

- 1997 *Inventory and Documentary of Segre Iron Works, Waterbury, Connecticut.* On file at the Connecticut State Historic Preservation Office.
- 1997 Architectural Survey and Documentation, Route 84 Realignment Project, New Britain to Waterbury, Connecticut. Report on file with the Connecticut State Historic Preservation Office.
- 1997 Survey for Route 2 Re-Alignment, Westerly, Rhode Island to Norwich, Connecticut. On file at the Connecticut State Historic Preservation Office.
- 1996 *City-Wide Industrial Resources Survey, Boston.* On file at the Massachusetts Historical Commission, Boston.
- 1996 Architectural Documentation of early 20th-Century University Structures. University of Bridgeport, Connecticut. On file at the Connecticut State Historic Preservation Office.
- 1993 *Documentation and archival research* on early landscape features and garden layout of James Logan's "Stenton" mansion. Philadelphia, PA.

NATIONAL REGISTER NOMINATIONS

- 2011 *Cherry Ridge Archaeological District, Vernon Township, New Jersey.* On file at the New Jersey Historic Preservation Office, Trenton.
- 1997 North Falmouth Village, Falmouth, Massachusetts. On file at the Massachusetts Historical Commission, Boston.

DETERMINATION OF ELIGIBILITY

1997 Segre Iron Works, Waterbury, Connecticut. On file at the National Register of Historic Places, Washington, D.C.

Gregory F. Walwer, Ph.D

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Education

- **Ph.D. Anthropology** with a focus in archaeology. *Yale University* in New Haven, Connecticut. May, 1998.
- **M.A. Anthropology** with a focus in archaeology. *University of Tulsa* in Tulsa, Oklahoma. May, 1993.
- **A.B. Sociology** *Washington University* in St. Louis, Missouri. May, 1989.

Work Experience

- Consulting Service Director Specializing in historic research, research design, survey, excavation, lithic analysis, faunal analysis, and statistical applications.

 ACS ◆ Archaeological Consulting Services ◆ in Guilford, Connecticut.

 September, 1993 to the present.
- **Teaching Fellow** Assistant instructor for physical anthropology and archaeology courses at *Yale University* in New Haven, Connecticut. September, 1995 to May, 1997.
- **International Field Survey Director** Driving and pedestrian reconnaissance survey targeting Paleolithic sites in *Yemen*. November, 1994.
- **Field School Instructor** *University of Tulsa* field archaeology course and excavation of MP and UP sites in the Hashemite Kingdom of Jordan. July to August, 1993.
- **Archaeological Consultant** Creek Council House restoration project. *City of Okmulgee*, Oklahoma. September, 1992 to January, 1993.
- **Project Director -** *Hokiahse Rockshelter* site and burial in Hominy, Oklahoma. January to May, 1992, and May to June, 1993.
- **Graduate Assistant -** Lithic analysis, data and statistical management, and field school instruction. *University of Tulsa* in Tulsa, Oklahoma. January, 1991 to May, 1993.
- **Research, Field, and Laboratory Assistant -** Research, excavation, laboratory analysis, data and statistical management. *Research and Archaeological Management* in Highland Park, New Jersey. October, 1989 to October, 1990.

Skills

Research design, survey, excavation, lithic analysis, faunal analysis, statistical applications, aboriginal ceramic analysis, historic artifact analysis, physical anthropology, literature and archival research, use of surveying equipment (global positioning systems, transits, and laser theodolites), photography, illustration, and the use of various word processing, spreadsheet, graphics, and database software packages.

Awards, Grants, and Scholarships

Yale University Dissertation Fellowship, Spring, 1998.

Andrew W. Mellon Dissertation Fellowship through Yale University, Fall 1997.

American Institute for Yemeni Studies General Fellowship, Summer 1996.

Andrew W. Mellon Pre-Dissertation Fellowship through Yale University, Summer 1994.

Full tuition waiver and four year fellowship from Yale University, 1993 through 1997.

Research grants (2) from the University of Tulsa, 1992.

Full tuition waiver and graduate assistantship from the *University of Tulsa*, 1991 to 1993.

Instruction of Courses as Teaching Assistant

- 1997 Primate Ecology and Social Behavior (182), Yale University, spring term, instructed by Dr. David Watts.
- 1996 Introduction to Physical Anthropology (116) with laboratory sections, Yale University, fall term, instructed by Dr. John Marks.
- 1996 Primate Ecology and Social Behavior (182), Yale University, spring term, instructed by Dr. David Watts.
- 1995 *Introduction to Physical Anthropology* (116) with laboratory sections, Yale University, fall term, instructed by Dr. John Marks.
- 1993 *Introduction to Field Archaeology* (2113), University of Tulsa, summer term, instructed by Dr. Donald Henry.
- 1992 *Introduction to Field Archaeology* (2113), University of Tulsa, summer term, instructed by Dr. Donald Henry.

Related Activities

Register of Professional Archaeologists - membership (#16435), 2008 to the present.

Society for American Archaeology - membership (#64896000), 1993 to the present.

Archaeological Society of Connecticut - membership, 1998 to the present.

Guilford Keeping Society - membership, 1998 to the present.

Yale Graduate Journal of Anthropology - Journal assistant editor, 1996-1997.

University of Tulsa Anthropological Society Bulletin. Newsletter editor, Sep 1992 through May 1993.

Graduate School Lectures and Public Addresses

The Barney Daley Collection. Televised interview for South Windsor, CT Public TV. June 20, 2000. Changes to Native American Cultural Patterns Resulting from Euroamerican Settlement in Connecticut.

Annual Meeting, Mayflower Society at the New Haven Country Club in New Haven,
Connecticut. January 23, 1999.

- Native American Mortuary Practices in Eastern Connecticut. Semi-annual Meeting, Archaeological Society of Connecticut at Central Connecticut State University in New Britain, Connecticut. October 17, 1998.
- Native American Mortuary Practices in Eastern Connecticut. Connecticut Archaeology Awareness Week Lecture Series, Wood Memorial Library in South Windsor, Connecticut. October 13, 1998.
- Technological Change and Subsistence Continuity in a Southern Plains Ecotone: The Hokiahse Rockshelter. Poster Session, Society for American Archaeology, 60th Annual Meeting in Minneapolis, Minnesota. May 3-7, 1995.
- Archaeological Excursion to Yemen. Brown Bag Series at the Department of Anthropology, Yale University in New Haven, Connecticut. April 14, 1995.
- Paleolithic Archaeology in Southern Jordan. Brown Bag Series at the Department of Anthropology, Yale University. Fall 1993.
- Televised interview regarding the Hokiahse Rockshelter in Osage County, Oklahoma. *Oklahoma Traveler, KOTV* (Channel 6), Tulsa, Oklahoma. Spring 1992.

Graduate School Publications and Papers

- 1998 Native American Mortuary Practices in Eastern Connecticut. Ph.D. dissertation, Yale University.
- 1997 *Justice in Native American Folklore of New England*. Manuscript, commissioned by Dr. Lucas Held of Connecticut College, New London, Connecticut.
- 1997 Native American Burials and Cemeteries in Eastern Connecticut. *Connecticut Preservation News* 20(2):15.
- 1997 *Compassion in Native American Folklore of New England*. Manuscript, commissioned by Dr. Lucas Held of Connecticut College, New London, Connecticut.
- 1996 Combining Archival and Archaeological Research: The Connecticut School for Boys Cemetery in Meriden, Connecticut. *Cultural Resource Management* 19(10):8-11.
- 1996 The Connecticut School for Boys Burial Ground. *Society for Historical Archaeology Newsletter* 29(2):21-22 (Reported by David Starbuck).
- 1996 Mulcahy Complex Connecticut School for Boys. *Council for Northeast Archaeology Newsletter* 33:8 (Reported by Cece Saunders).
- 1996 Agricultural Biotechnology. Manuscript, commissioned by Technology Management Group, Inc., New Haven, Connecticut.
- 1994 Report of the Excavation of the Site of Tor Foraj and Wadi Aghar: University of Tulsa South Jordan Project, 1993 season. *Annual, Department of Antiquities of Jordan*. (Principal author Donald O. Henry; co-authors Yuri Demidenko, Vitaly Usik, Harold Hietala, and Stephen A. Hall).
- 1994 *Drug Delivery Systems*. Manuscript, commissioned by Technology Management Group, Inc., in New Haven, Connecticut.
- 1993 *Natural Remedies*. Manuscript, filed with Technology Management Group, Inc. in New Haven, Connecticut.
- 1993 Lithic Weathering Effects as Paleoenvironmental Indicators of Archaeological Sites in Southern Jordan. Masters thesis, University of Tulsa.
- 1991 Native American Land-Use Patterns of the Outer Coastal Plain of New Jersey. *Man in the Northeast* 41:85-104. (Principal author Peter Pagoulatos).
- Native American Land-Use Patterns of the Outer Coastal Plain of New Jersey. *Bulletin of the Archaeological Society of New Jersey* 45:77-95. (Co-author Peter Pagoulatos).

Cultural Resource Management Projects and Reports

- 2018 Phase III Data Recovery, Tomb Road and Bassett Sites, Bridgewater, Massachusetts. Report commissioned by Claremont Companies, Bridgewater, Massachusetts. (Co-author Craig S. Chartier) (in progress).
- 2018 Phase I Intensive (Locational) Archaeological Survey, Tall Timber Estates Phase V, 38 and 34 South Street, Kingston, Massachusetts. Report commissioned by 34 South Street, LLC of Kingston, Massachusetts. (Principal author – Craig S. Chartier) (in progress).
- 2018 Phase I Intensive (Locational) Archaeological Survey, Indian Memorial Cairn, Yarmouth, Massachusetts. Report commissioned by the Town of Yarmouth, Massachusetts. (Principal author Craig S. Chartier) (in progress).
- 2018 Phase I Intensive (Locational) Archaeological Survey, Blue Sky Towers Wireless Facility, Mashpee Fire Station #2, Mashpee, Massachusetts. Report commissioned by Lucas Environmental, LLC of Quincy, Massachusetts. (Co-author Craig S. Chartier).
- 2018 Phase I Intensive Archaeological Survey, Cedar Forest Subdivision, Town of Smithfield, Rhode Island. Report commissioned by Cedar Forest Associates, LLC, Smithfield, Rhode Island (in progress).
- 2018 Professional On-Call Archaeological Services, New Haven Downtown Green Infrastructure, City of New Haven, Connecticut. Report commissioned by the Engineering Department, City of New Haven, Connecticut (Co-author Dorothy N. Walwer) (in progress construction monitoring).
- 2018 Phase Ia Archaeological Assessment Survey and Monitoring of the Danielson Sewer Replacement Project in Killingly, Connecticut. Report commissioned by the Town of Killingly, Connecticut (Co-author Dorothy N. Walwer) (in progress construction monitoring).
- 2018 Phase II Archaeological Site Examination, Historic Northampton, Nathaniel Parsons House, Northampton, Massachusetts. Report commissioned by Historic Northampton, Northampton, Massachusetts. (Co-author Craig S. Chartier) (in progress).
- 2018 Archaeological Investigations, Springfield Armory Storm Drainage Rehabilitation Project #PI6PC00491.

 Report commissioned by Henry General Contractors, Inc. of Springfield, Massachusetts (Co-author Craig S. Chartier).
- 2018 Phase I Intensive (Locational) Archaeological Survey, Vertex Towers Wireless Facility, 73 Chestnut Hill Road, Monterey, Massachusetts. Report commissioned by Lucas Environmental, LLC of Quincy, Massachusetts. (Co-author Craig S. Chartier).
- 2017 Site Examination Testing at the Locus 3 Site (2017 Season), Taylor Bray Farm, Yarmouth, Massachusetts Report commissioned by the Taylor-Bray Farm Preservation Association and the Town of Yarmouth, Massachusetts (Principal author Craig S. Chartier).
- 2017 Phase I Intensive (Locational) Archaeological Survey, Elisha Thornton Jr. Homesite, 20 Seventh Street, New Bedford, Massachusetts. Report commissioned by the City of New Bedford, Massachusetts. (Principal author Craig S. Chartier).
- 2017 Phase I Archaeological Reconnaissance Survey of the Reconstruction of Moose Hill Road and Culvert Replacement over Witkowski Brook, Town of Trumbull, Connecticut. Report commissioned by Luchs Consulting Engineers of Meriden, Connecticut. (Co-author Dorothy N. Walwer).
- 2017 Phase Ib Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Old Main Subdivision in the Town of Rocky Hill, Connecticut. Report commissioned by Bellsite Development LLC, Manchester, Connecticut. (Co-author Dorothy N. Walwer).
- 2017 Phase I Intensive (Locational) Archaeological Survey, Gray's Beach Stabilization & Restoration Project, Kingston, Massachusetts. Report commissioned by the Town of Kingston, Massachusetts (Principal author Craig S. Chartier).
- 2017 Archaeological Sensitivity Update, I-95 Corridor Feasibility Study, Branford to Rhode Island. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut.
- 2017 Phase I Archaeological Reconnaissance Survey of the Proposed Trail Improvements at Goodwin College (Phase 3A) in the Town of East Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2017 Phase Ia Archaeological Assessment Survey, 27 Mount Nebo Road Subdivision (6.71 acres), Town of Newtown, Connecticut. Report commissioned by Grassy Hill Builders, LLC of Southbury, Connecticut. (Co-author Dorothy N. Walwer).
- 2017 Phase II Archaeological Site Examination, Taylor-Bray Farm, Richard and Ruth Taylor and Knoll Site, Yarmouth, Massachusetts. Report commissioned by the Taylor-Bray Farm Preservation Association and the Town of Yarmouth, Massachusetts (Principal author Craig S. Chartier).

- 2017 Phase I Archaeological Reconnaissance Survey of the Old Colchester Road & Black Ash Road Intersection Improvements in the Town of Montville, Connecticut. Report commissioned by CLA Engineers, Inc. of Norwich, Connecticut. (Co-author Dorothy N. Walwer).
- 2017 Phase I Intensive (Locational) Archaeological Survey, The Residences at West Union, Town of Ashland, Massachusetts. Report commissioned by Goddard Consulting, LLC of Northborough, Massachusetts (Coauthor - Craig S. Chartier).
- 2017 Phase I Archaeological Reconnaissance Survey of Wendell's Woods Subdivision in the Town of Glastonbury, Connecticut. Report commissioned by Megson, Heagle & Friend Civil Engineers & Land Surveyors, LLC of Glastonbury, Connecticut (Co-author Dorothy N. Walwer).
- 2017 Phase Ia Archaeological Assessment Survey, Real Estate Service of Connecticut, Inc. Subdivision, Green Valley Lakes Road, Town of East Lyme, Connecticut. Report commissioned by Indigo Land Design, LLC of Old Saybrook, Connecticut (Co-author Dorothy N. Walwer).
- 2017 Phase I Archaeological Reconnaissance Survey of the Proposed Trail Improvements at Goodwin College (Phase 2) in the Towns of East Hartford, Wethersfield, and Glastonbury, Connecticut. Report commissioned by Goodwin College of East Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2017 Monitoring of Construction, New Haven Rail Yard (152 Water Street) in the City of New Haven, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author – Dorothy N. Walwer).
- 2017 Phase I Archaeological Reconnaissance Survey, Art's Barn Cell Tower, Town of Madison, Connecticut. Report commissioned by Infinigy of Albany, New York (Co-author Dorothy N. Walwer).
- Archaeological Sensitivity Assessment, William Davol House Improvements, Pittsfield, Massachusetts.

 Report commissioned by the City of Pittsfield, Massachusetts (Co-author Craig S. Chartier).
- 2016 Phase I Archaeological Reconnaissance Survey of the Thompson Road Sewer Extension Project in the Town of Thompson, Connecticut. Report commissioned by the Town of Thompson, Connecticut (Coauthor Dorothy N. Walwer).
- 2016 Phase I Archaeological Reconnaissance Survey of the Julia Ridge Residential Subdivision in the Town of Stratford, Connecticut. Report commissioned by Tiso & Company, Stratford, Connecticut (Principal author Justin H. Daley, Co-author Dorothy N. Walwer).
- Final Report on Site Examination Testing at the Locus 3 Site, Taylor Bray Farm, Yarmouth, Massachusetts Report commissioned by the Taylor-Bray Farm Preservation Association and the Town of Yarmouth, Massachusetts (Principal author Craig S. Chartier).
- 2016 Phase I Archaeological Reconnaissance Survey, MDC Windsor Interceptor Proposed Easement, Town of Windsor, Connecticut. Report commissioned by the Metropolitan District Commission of Hartford, Connecticut (Co-author – Dorothy N. Walwer).
- 2016 Report on the Site Examination Testing, Captain Robbins Homesite, Acton, Massachusetts. Report commissioned by the Acton Historical Commission in Acton, Massachusetts (Principal author Craig S. Chartier).
- 2016 Phase I Archaeological Reconnaissance Survey, Park Place Holdings Subdivision, Town of Colchester, Connecticut. Report commissioned by CLA Engineers, Inc. of Norwich, Connecticut (Co-author Dorothy N. Walwer).
- 2015 Phase I Archaeological Survey, West River Farms Subdivision, Towns of East Windsor and South Windsor, Connecticut. Report commissioned by West River Farms, LLC of Woodmere, New York (Co-author -Dorothy N. Walwer).
- 2015 Phase I Intensive Archaeological Survey and Phase II Site Examination of the O'Neill Minor Subdivision in the Town of South Kingstown, Rhode Island. Report commissioned by Mr. M. Robert O'Neill, South Kingstown, Rhode Island (Co-author Dorothy N. Walwer).
- 2015 Phase Ia Archaeological Assessment Survey, Enfield Solar, LLC Solar Energy Project, Town of Enfield, Connecticut. Report commissioned by Ranger Solar of Yarmouth, Maine (Co-author - Dorothy N. Walwer).
- 2015 Intensive Survey Report, Coles Pond Road, Dennis, Massachusetts. Report commissioned by Mr. and Mrs. Randall Balhorn (Principal author Craig S. Chartier).
- 2015 Phase Ib Archaeological Reconnaissance Survey of the Proposed Trail Improvements at Scantic River State Park in the Town of East Windsor, Connecticut. Report commissioned by the Connecticut Department of Energy and Environmental Protection (DEEP), Recreational Trails & Greenways Program in the City of Hartford, Connecticut (Co-author Dorothy N. Walwer).

- 2015 Intensive Survey Report, Geiger Property, Old South Road, Aquinnah, Massachusetts. Report commissioned by Ms. Sophie C. Geiger, Aquinnah, Massachusetts (Principal author Craig S. Chartier).
- 2015 Phase I Archaeological Reconnaissance Survey of Powder Forest Parcels 5 and 6 in the Town of Simsbury, Connecticut. Report commissioned by Landworks Development of Simsbury, Connecticut (Coauthor Dorothy N. Walwer).
- 2015 Phase I Archaeological Reconnaissance Survey of the Fusion Solar Center in the Town of Sprague, Connecticut. Report commissioned by Coronal Development of Charlottesville, Virginia (Co-author – Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the Buttrick Trail and Bridge Improvements in the Town of Torrington, Connecticut. Report commissioned by the Connecticut Department of Energy and Environmental Protection (DEEP), Recreational Trails & Greenways Program in the City of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the American Heritage River Commission Trail Improvements at Scantic River State Park in the Town of East Windsor, Connecticut. Report commissioned by the Connecticut Department of Energy and Environmental Protection (DEEP), Recreational Trails & Greenways Program in the City of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the Proposed Trail Improvements at Goodwin College in the Town of East Hartford, Connecticut. Report commissioned by Goodwin College of East Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey, East Campus Industrial Warehouse Facility, Town of Stratford, Connecticut. Report commissioned by Rose Tiso & Co., LLC of Fairfield, Connecticut. (Coauthor Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the Delta Building Facility in the Town of Cromwell, Connecticut. Report commissioned by Hallisey, Pearson & Cassidy of Rocky Hill, Connecticut. (Coauthor Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the Rolling Meadows Subdivision in the Town of North Branford, Connecticut. Report commissioned by Ricci Construction Group, Inc. of Cheshire, Connecticut. (Co-author Dorothy N. Walwer).
- 2014 Supplemental Phase I Archaeological Survey of the Quinnipiac River Linear Trail (Phase III) and Related Improvements in the Town of Wallingford, Connecticut. Report commissioned by the Connecticut Department of Energy and Environmental Protection (DEEP), Recreational Trails & Greenways Program in the City of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2014 Preliminary Cultural Resource Review of 37 Proposed Trail Improvement Projects. Report commissioned by the Connecticut Department of Energy and Environmental Protection (DEEP), Recreational Trails & Greenways Program in the City of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2014 Phase I Archaeological Reconnaissance Survey of the Pearl Lake Road Sidewalk Improvements in the City of Waterbury, Connecticut. Report commissioned by the Public Works Department, City of Waterbury, Connecticut. (Co-author Dorothy N. Walwer).
- 2013 Phase Ia Archaeological Assessment Survey of the Multi-Story Parking Garage in the City of Middletown, Connecticut, ConnDOT Project No. 82-297. Report commissioned by URS of Rocky Hill, Connecticut. (Co-author Dorothy N. Walwer).
- 2013 Phase Ia Archaeological Assessment Survey of the Proposed Bus Maintenance and Storage Facility, 200 Litchfield Street & 105 Summer Street in the City of Torrington, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2013 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Franklin Hills Estates & Country Club in the Town of Franklin, Connecticut. Report commissioned by Franklin Hills Estates & Country Club, LLC. (Co-author Dorothy N. Walwer).
- 2013 Phase I Archaeological Reconnaissance Survey, 191 Brook Street, Town of Rocky Hill, Connecticut.

 Report commissioned by Hallisey, Pearson & Cassidy of Rocky Hill, Connecticut. (Co-author Dorothy N. Walwer).
- 2013 Phase Ib Archaeological Reconnaissance Survey of UCONN Technology Park, Parcel C, University of Connecticut in the Town of Mansfield, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut. (Co-author Dorothy N. Walwer).

- 2012 Phase Ia Archaeological Assessment Survey of the New Haven Rail Yard (152 Water Street) in the City of New Haven, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2012 Phase I Archaeological Reconnaissance Survey of the Foxboro Point Subdivision in the Town of Essex, Connecticut. Report commissioned by Sciame Development, Inc. of New York, New York.
- 2012 Phase I Archaeological Reconnaissance Survey of the "100 Cabins for 100 Years Program" at Kettletown State Park in the Town of Oxford, Connecticut. Report commissioned by the Connecticut Department of Energy & Environmental Protection, State Parks & Public Outreach Division in Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2012 Phase I Archaeological Reconnaissance Survey of the "100 Cabins for 100 Years Program" at Housatonic Meadows State Park in the Town of Sharon, Connecticut. Report commissioned by the Connecticut Department of Energy & Environmental Protection, State Parks & Public Outreach Division in Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2012 Phase Ib Archaeological Reconnaissance Survey of the "100 Cabins for 100 Years Program" at Hammonasset Beach State Park in the Town of Madison, Connecticut. Report commissioned by the Connecticut Department of Energy & Environmental Protection, State Parks & Public Outreach Division in Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2011 Archaeological Monitoring of the Burnside Avenue / Bidwell Street Drainage Improvements in East Hartford, Connecticut. Monitoring service commissioned by Empire Paving of North Branford, Connecticut.
- Archaeological Monitoring of the Moodus Reservoir Dam Reconstruction Project in the Town of East Haddam, Connecticut. Report commissioned by WMC Consulting Engineers of Newington, Connecticut (Co-author Dorothy N. Walwer).
- 2011 Phase I Archaeological Reconnaissance Survey of the Edison Road Extension in the Town of Orange, Connecticut. Report commissioned by Purcell Associates of Glastonbury, Connecticut. (Co-author – Dorothy N. Walwer).
- 2011 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Surveys of the Thomas Scranton House Property in the Town of Madison, Connecticut. Report commissioned by Guilford Savings Bank of Guilford, Connecticut. (Co-author Dorothy N. Walwer).
- 2011 Phase Ia Archaeological Assessment Survey and NEPA CATEX Preparation, VA Medical Campus, Canandaigua, Ontario County, New York. Report commissioned by the United States Department of Veterans Affairs in Washington, D.C. (Co-author Dorothy N. Walwer).
- 2011 Phase I Archaeological Reconnaissance Survey of the Nathan Hale Homestead Septic Improvements in the Town of Coventry, Connecticut. Report commissioned by Connecticut Landmarks of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2011 Phase Ia Archaeological Assessment Survey of the Connecticut River Museum Bulkhead Repair and Dock Reconstruction Project in the Town of Essex, Connecticut. Report commissioned by the Connecticut River Museum of Essex, Connecticut (Co-author Dorothy N. Walwer).
- 2011 Phase Ia Archaeological Assessment Survey of the Farmington Canal Lock 14 Site in the Town of Hamden, Connecticut. Report commissioned by the Hamden Historic Properties Commission of Hamden, Connecticut (Co-author Dorothy N. Walwer).
- 2011 Phase II Intensive Archaeological Survey of the United States Postal Service Main Street South Property in the Town of Southbury, Connecticut. Report commissioned by the United States Postal Service, Windsor Facilities Service Office of Windsor, Connecticut (Co-author Dorothy N. Walwer).
- 2011 Phase Ia Archaeological Assessment Survey of the Union Station Parking Garage (South) in the City of New Haven, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2010 Phase I Archaeological Reconnaissance Survey, Enhanced Use Lease (EUL) Project, Veterans Affairs Connecticut Healthcare System Newington Campus, Town of Newington, Connecticut. Report commissioned by the United States Department of Veterans Affairs in Washington, D.C. (Co-author Dorothy N. Walwer).
- 2010 Cultural Resource Assessment, West Parish Meeting House, Town of Westport, Connecticut. Report commissioned by Landscape Elements LLC of Stonington, Connecticut.
- 2010 Phase Ia Archaeological Assessment Survey of the PN-BA Infrastructure Improvements at Colonial Road Bridge in the Town of North Hampton, Nassau County, New York. Report commissioned by HNTB of New York, New York (Co-author Dorothy N. Walwer).

- 2010 Phase I Archaeological Reconnaissance Survey of the Seven Hearths Property in the Town of Kent, Connecticut. Report commissioned by the Kent Historical Society of Kent, Connecticut (Co-author – Dorothy N. Walwer).
- 2010 Phase I Archaeological Reconnaissance Survey of the Intersection Improvements at Ninth District and Sokol Roads and State Route 190 (Main Street) in the Town of Somers, Connecticut. Report commissioned by Purcell Associates of Glastonbury, Connecticut (Co-author Dorothy N. Walwer).
- 2010 Archaeological Monitoring Survey, Fort Totten, Queens, New York. Report commissioned by the New York City Department of Parks & Recreation, Queens, New York (Co-author Dorothy N. Walwer).
- 2009 Phase I Archaeological Reconnaissance Survey of the Water Pollution Control Facility in the Town of West Haven, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2009 Phase Ib Archaeological Reconnaissance Survey of the Train Station Parking Garage in Stratford, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author – Dorothy N. Walwer).
- 2009 Phase Ia Archaeological Assessment Survey of the East Bridgeport Train Yard, Town of Bridgeport, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Co-author – Dorothy N. Walwer).
- 2009 Phase I Archaeological Survey of the Tyler Mill Trails Improvements Project in Wallingford, Connecticut Report commissioned by the Department of Environmental Protection of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2009 Phase I Archaeological Survey of the Schwenzer Property Subdivision in the Town of Madison, Connecticut. Report commissioned by Milone & MacBroom, Inc. of Cheshire, Connecticut (Co-author – Dorothy N. Walwer).
- 2009 Phase I Archaeological Survey of the Windsor Meadows State Park Trails Improvements Project in Windsor, Connecticut Report commissioned by the Department of Environmental Protection of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2009 Phase I Archaeological Survey of the Veteran's Park Improvements Project in Middletown, Connecticut Report commissioned by the Department of Environmental Protection of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2009 Phase Ia Archaeological Assessment Survey and Phase Ib Archaeological Reconnaissance Survey of the Scotland Hydroelectric Project in Windham, Connecticut. Report commissioned by Norwich Public Utilities of Norwich, Connecticut (Co-author Dorothy N. Walwer).
- 2009 Phase Ia Archaeological Assessment Survey of the Metro-North Commuter Railroad Danbury / New Milford Extension Electrification Project (Co-author Dorothy N. Walwer). Report commissioned by URS / Washington Division of Rocky Hill, Connecticut (Co-author Dorothy N. Walwer).
- 2008 Phase Ia Archaeological Assessment Survey of the Rankin Estates Property in North Smithfield, Rhode I sland. Report commissioned by the Town of North Smithfield, Rhode Island.
- 2008 Phase Ia Archaeological Assessment Survey of the Train Station Parking Garage in Stratford, Connecticut. Report commissioned by Fitzgerald & Halliday of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2008 Archaeological Monitoring Survey, New London Harbor Lighthouse, Town of New London, Connecticut. Report commissioned by the United States Coast Guard CEU Providence of Warwick, Rhode Island.
- 2008 Phase Ia Archaeological Assessment Survey and Monitoring of the Rehabilitation of Richmond Hill Avenue Bridge and West Stamford Cemetery in Stamford, Connecticut. Report commissioned by the City of Stamford, Connecticut (Co-author Dorothy N. Walwer) (in progress).
- 2008 Phase I Archaeological Reconnaissance Survey of La Quinta Hotel in the Town of Stonington, Connecticut. Report commissioned by Beara Capital of Warwick, RI (Co-author Dorothy N. Walwer).
- 2008 Phase I Archaeological Reconnaissance Survey of the Interstate 84 Improvements, Exits 1 and 2 in Danbury, Connecticut Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut (Coauthor Dorothy N. Walwer).
- 2007 Phase I Archaeological Reconnaissance Survey and Phase II Intensive Archaeological Survey of the Watertown Renewable Power Plant in Watertown, Connecticut. Report commissioned by Tamarack Energy, Inc. of Essex, Connecticut (Co-author Dorothy N.Walwer).
- 2007 Phase I Archaeological Reconnaissance Survey of the East Hartford / Glastonbury Elementary Magnet School in the Town of East Hartford, Connecticut. Report commissioned by JCJ Architecture, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).

- 2007 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Pendleton Farm Lane Subdivision in the Town of Groton, Connecticut. Report commissioned by Boundaries, LLC of Griswold, Connecticut (Co-author Dorothy N. Walwer).
- 2007 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Surveys of the Mystic Woods Subdivision in the Town of Groton, Connecticut. Report commissioned by Hawthorne Partners of Woburn, Massachusetts (Co-author Dorothy N. Walwer).
- 2007 Phase Ia Archaeological Assessment Survey of the Proposed Quinnipiac River Trail (Phase III) in the Town of Wallingford, Connecticut. Report commissioned by Milone & MacBroom, Inc. of Cheshire, Connecticut (Co-author Dorothy N. Walwer).
- 2006 Phase I Archaeological Reconnaissance Survey of the Crossing at Lisbon Retail Development, Town of Lisbon, Connecticut. Report commissioned by Cedarwood Development of Akron, Ohio (Coauthor - Dorothy N. Walwer).
- 2006 Phase I Archaeological Reconnaissance Survey of the Parkins Road & Moosehill Road Wastewater Alignment in the Town of Oxford, Connecticut. Report commissioned by the Town of Oxford (Coauthor Dorothy N. Walwer).
- 2006 Phase I Archaeological Reconnaissance Survey of the 167 Cross Highway Subdivision in the Town of Westport, Connecticut. Report commissioned by Barr Associates LLC of Westport, Connecticut (Co-author - Dorothy N. Walwer).
- 2006 Phase I Archaeological Reconnaissance Survey of the Forest Glen Housing Project, East Hampton, Connecticut. Report commissioned by Rand Construction of East Hampton, Connecticut (Coauthors Dorothy N. Walwer and Jean-Marie Cerasale).
- 2006 Phase I Archaeological Reconnaissance Survey of the 138-144 Cross Highway Subdivision in the Town of Westport, Connecticut. Report commissioned by Axis Point Group Holdings LLC of Westport, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Dawley Collelo Green Hollow Road Subdivision in the Town of Killingly, Connecticut. Report commissioned by Provost & Rovero, Inc. of Plainfield, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase II Intensive Archaeological Survey Report of the Yale Farm Golf Club in the Towns of Norfolk and North Canaan, Connecticut. Report commissioned by Yale Farm Golf Club, L.P. of Norfolk, Connecticut. (Co-author - Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Country Club Hills Subdivision in the Town of Waterbury, Connecticut. Report commissioned by Secor, Cassidy & McPartland, P.C. of Waterbury, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase Ia Archaeological Assessment Survey of the Grove Hill Subdivision (Section 2) in the Town of East Haven, Connecticut. Report commissioned by Godfrey-Hoffman Associates, LLC of Hamden, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Stone Bridge Estates Subdivision in the Town of Killingly, Connecticut. Report commissioned by T&B Building Company, LLC of Danielson, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Proposed Elementary School Property in the Town of Glastonbury, Connecticut. Report commissioned by Moser Pilon Nelson Architects of Wethersfield, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Wyndemere Residential Developement in the Town of Windsor, Connecticut. Report commissioned by Murtha Cullina, LLP of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Hollowell Brook Subdivision in the Town of Preston, Connecticut. Report commissioned by Dziengiel Custom Builders, Inc. of Bozrah, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase Ia Archaeological Assessment Survey of the Fitch and King School Projects in the Town of Groton, Connecticut. Report commissioned by Jeter, Cook & Jepson Architects, Inc. of Hartford, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase Ia Archaeological Assessment Survey of the Active Adult Residential Development in the Town of Enfield, Connecticut. Report commissioned by Rema Ecological Services, LLC of Manchester, Connecticut. (Co-author - Dorothy N. Walwer).

- 2005 Phase I Archaeological Reconnaissance Survey of the Whispering Woods Estates Subdivision in the Town of East Hampton, Connecticut. Report commissioned by LRC Group of Cromwell, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Skyline Estates Subdivision in the Town of East Hampton, Connecticut. Report commissioned by Rand Construction of East Hampton, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the Retail Center 581 Hartford Turnpike in the Town of Killingly, Connecticut. Report commissioned by Langan Engineering and Environemntal Services, Inc. of New Haven, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase II Documentary Archaeological Survey of Stone Features at The Ridges at Deer Lake Housing Development Property in the Town of Killingworth, Connecticut. Report commissioned by Deer Lake II, LLC of New Haven, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Hammocks Subdivision (East Section) in the Town of Clinton, Connecticut. Report commissioned by Clinton Nurseries of Westbrook, Connecticut (Co-author - Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance Survey of the 5-Building Residential Subdivision, Route 169 in the Town of Lisbon, Connecticut. Report commissioned by Realcom, LLC of Waterford, Connecticut (Co-author Dorothy N. Walwer).
- 2005 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Cedar Glen Farm Residential Subdivision in the Town of Griswold, Connecticut. Report commissioned by Boundaries, LLC of Griswold, Connecticut. (Co-author Dorothy N. Walwer).
- 2004 Phase I Archaeological Reconnaissance Survey of the 81-83 Redcoat Road 4-Lot Subdivision in the Town of Westport, Connecticut. Report commissioned by private owner (Co-author Dorothy N. Walwer).
- 2004 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Middlebury Golf Community in the Town of Middlebury, Connecticut. Report commissioned by Ginsburg Development CT of Danbury, Connecticut. (Co-author Dorothy N. Walwer).
- 2004 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Thompson Road and Old Farms Road Relocation Project in the Town of Avon, Connecticut. Report commissioned by C&C Consulting, LLC of Boston, Massachusetts. (Co-author - Dorothy N. Walwer).
- 2004 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Berlin & Coles Road Commercial Development in the Town of Cromwell, Connecticut. Report commissioned by Langan Engineering & Environmental Services, Inc. of New Haven, Connecticut. (Co-author Dorothy N. Walwer)
- 2004 Phase I Archaeological Reconnaissance Survey Report of the LaFantasie Road Subdivision in the Town of Killingly, Connecticut. Report commissioned by PC Survey Associates, LLC of Danielson, Connecticut. (Co-author - Dorothy N. Walwer)
- 2004 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey Report of the Mystic Weigh Subdivision in the Town of Groton, Connecticut. Report commissioned by Fuss & O'Neill, Inc. of Manchester, Connecticut. (Co-author Dorothy N. Walwer)
- 2004 Phase I Archaeological Reconnaissance Survey of the Griswold Preston Subdivision in the Town of East Haddam, Connecticut. Report commissioned by Doane-Collins Engineering Associates, LLC of Centerbrook, Connecticut. (Co-author - Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey of the Proposed Wastewater Treatment Plant Upgrade in the Town of Simsbury, Connecticut. Report commissioned by Earth Tech, Inc. of Glastonbury, Connecticut. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Hudson National Golf Club Driving Range in the Town of Croton-on-Hudson, New York. Report commissioned by the Hudson National Golf Club of Croton-on-Hudson, New York. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Witek Park Field Improvements in the Town of Derby, Connecticut. Report commissioned by Milone & MacBroom, Inc. of Cheshire, Connecticut. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Stone's Ranch Firehouse in the Town of East Lyme, Connecticut. Report commissioned by CLA Engineers, Inc. of Norwich, Connecticut. (Co-author Dorothy N. Walwer).

- 2003 Phase Ia Archaeological Assessment Survey of the Proposed Hudson National Golf Club Driving Range in the Town of Croton-on-Hudson, New York. Report commissioned by the Hudson National Golf Club of Croton-on-Hudson, New York. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Retail Development in the Town of Colchester, Connecticut. Report commissioned by BL Companies of Meriden, Connecticut. (Coauthor - Dorothy N. Walwer)
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Deer Ridges Subdivision in the Town of Killingworth, Connecticut. Report commissioned by Thomas A. Stevens & Associates, Inc. of Madison, Connecticut. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey Report of the Proposed Salt Storage Barn and Town Garage Site in Lisbon, Connecticut. Report commissioned by CLA Engineers, Inc. of Norwich, Connecticut. (Co-author Dorothy N. Walwer).
- 2003 Phase I Archaeological Reconnaissance Survey of the CANG Rifle Range Facility in East Haven, Connecticut. Report commissioned by the Connecticut Army National Guard of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2003 Phase II Intensive Archaeological Survey of the Proposed Riversound Development in the Town of Old Saybrook, Connecticut. Report commissioned by BL Companies of Meriden, Connecticut. (Coauthor Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey Report of the Yale Farm Golf Club in the Towns of Norfolk and North Canaan, Connecticut. Report commissioned by Yale Farm Golf Club, L.P. of Norfolk, Connecticut. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Proposed Tower Ventures Cell Tower Sites in the Town of Durham, Connecticut. Report commissioned by Tower Ventures, Inc. of Hamden, Connecticut. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Proposed Tower Ventures Cell Tower Sites in the Town of Cheshire, Connecticut. Report commissioned by Tower Ventures, Inc. of Hamden, Connecticut. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Bartlett Hill Subdivision Property in the Town of Portland, Connecticut. Report commissioned by Angus McDonald / Gary Sharpe & Associates, Inc. of Old Saybrook, Connecticut. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Quinebaug Valley Gateway Center in the Town of Thompson, Connecticut. Report commissioned by Northeastern Connecticut Council of Governments. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Benson Woods Property in the Town of Middlebury, Connecticut. Report commissioned by Timex Corporation of Middlebury, Connecticut. (Co-author - Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey Report of the Mason's Landing Subdivision in the Town of Killingly, Connecticut. Report commissioned by PC Survey Associates, LLC of Danielson, Connecticut. (Co-author Dorothy N. Walwer).
- 2002 Phase I Archaeological Reconnaissance Survey Report of the Old Church Commons Commercial Development in the Town of Killingworth, Connecticut. Report commissioned by The Dowler Company of Madison, Connecticut. (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey Report of the Interstate 95 Highway Improvements, Proposed Noise Barriers in the Town of Branford, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut. (Co-author - Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey Report of the Interstate 95 Highway Improvements, Exit 55 Commuter Parking Lot in the Town of Branford, Connecticut. Report commissioned by Fitzgerald & Halliday, Inc. of Hartford, Connecticut. (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey Report of the Monroe Senior Center Property in the Town of Monroe, Connecticut. Report commissioned by the Town of Monroe, Connecticut. (Co-author Dorothy N. Walwer).
- 2001 Phase Ia Archaeological Assessment Survey Report of the Carl V. Muller Subdivision in the Town of Killingly, Connecticut. Report commissioned by Normandin & Associates of Danielson, Connecticut. (Co-author - Dorothy N. Walwer).
- 2001 Archeological Reconnaissance Survey (Phase 1B) of Lots 3, 4 and 5, Old Stagecoach Estates, Redding, Connecticut. Report commissioned by Arrowhead Hills, LLP of Redding, Connecticut. (Principal author Stuart A. Reeve).

- 2001 Phase Ia Archaeological Assessment Survey of the Riverwalk Municipal Park, Town of Tuxedo, New York. Report commissioned by the Town of Tuxedo, New York. (Co-author Gerald Weinstein).
- 2001 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Oak Landing Subdivision, Westbrook, Connecticut. Report commissioned by Angus McDonald / Gary Sharpe & Associates, Inc. of Old Saybrook, Connecticut. (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Sonneborn Estates Subdivision, New Fairfield, Connecticut. Report commissioned by Twin Hills, LLC of Danbury, Connecticut. (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey of the Trueman's Meadow Subdivision, Coventry, Connecticut. Report commissioned by Datum Engineering & Surveying, LLC of Mansfield Center, Connecticut. (Co-author - Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey of the 6 Lodge Street Parcel in the City of Albany, Albany County, New York. Report commissioned by the County of Albany, New York.
- 2001 Phase II Intensive Archaeological Survey of the Runway 5 Site, Groton New London Airport, Groton, Connecticut. Report commissioned by Clough, Harbour & Associates, Inc. of Albany, New York (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Sterling Forge Estates Golf Course and Residential Development in Tuxedo, New York. Report commissioned by Sterling Forest, LLC of Tuxedo, New York (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Sterling Forest Office Facility and Elderly Housing Complex in Tuxedo, New York. Report commissioned by Sterling Forest, LLC of Tuxedo, New York (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey of the Kent Golf Club in the towns of New Milford and Kent, Connecticut. Report commissioned by Sasaki Associates, Inc. of Watertown, Massachusetts (Co-author Dorothy N. Walwer).
- 2001 Phase I Archaeological Reconnaissance Survey of the Proposed Crown Atlantic Cell Tower Site in Guilford, Connecticut. Report commissioned by Crown Atlantic Corporation of Woburn, Massachusetts. (Co-author Stuart A. Reeve).
- 2001 Phase I Archaeological Reconnaissance Survey of the Proposed Crown Atlantic Cell Tower Sites in Old Lyme, Connecticut. Report commissioned by Crown Atlantic Corporation of Woburn, Massachusetts (Co-author Stuart A. Reeve).
- 2000 Phase I Archaeological Reconnaissance Survey of Runway 5-23 Safety Improvement Areas, Groton New London Airport, Groton, Connecticut. Report commissioned by Clough, Harbour & Associates, Inc. of Albany, New York (Co-author Dorothy N. Walwer).
- 2000 Phase I Archaeological Assessment and Documentation Study of the Cross Sound Ferry Proposed Boardwalk and Access Drive in New London, Connecticut. Report commissioned by Milone & MacBroom, Inc. of Cheshire, Connecticut (Co-author Dorothy N. Walwer).
- 2000 Phase I Archaeological Reconnaissance Survey of the Drozdyk Drive Multi-Family Community Development in Groton, Connecticut. Report commissioned by The Edgewater Company, LLP of Liverpool, New York (Co-author Dorothy N. Walwer).
- 2000 *Inventory and Analysis of the Barney Daley Collection*. Analysis and database commissioned by the Friends of the Wood Memorial Library in South Windsor, Connecticut.
- 2000 Phase I Archaeological Reconnaissance Survey of the Proposed Troutbeck Golf Course and Corporate Housing Facility in Amenia, New York. Report commissioned by Sasaki Associates of Watertown, Massachusetts (Co-author Dorothy N. Walwer).
- 2000 Phase I Archaeological Reconnaissance Survey of the Lisbon Landing Commercial Development in Lisbon, Connecticut. Report commissioned by W/S Development Associates, LLC of Chestnut Hill, Massachusetts (Co-author Dorothy N. Walwer).
- 2000 Phase Ia Archaeological Assessment Survey of the Flanders Woods Development Project in Woodbury, Connecticut. Report commissioned by K.T. Plumb Brook, LLC of Wilton, Connecticut (Coauthor Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance Survey of the Proposed Ohno Development, North Branford, Connecticut. Report commissioned by Russell Waldo, Professional Engineer of Guilford, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance Survey of Proposed Drainage Improvement Areas at the Henry Whitfield State Museum in Guilford, Connecticut. Report commissioned by the Connecticut Historical Commission of Hartford, Connecticut (Co-author Dorothy N. Walwer).

- 1999 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Silver Brook West Housing Development in Westbrook, Connecticut. Report commissioned by Angus McDonald / Gary Sharpe Associates, Inc. of Old Saybrook, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance Survey of the Proposed Wampus-Milford Development, Milford, Connecticut. Report commissioned by Codespoti and Associates of Stratford, Connecticut. (Coauthor Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance Survey of the Clark Street Reconstruction Project, South Windsor, Connecticut. Report commissioned by the Town of South Windsor, Connecticut (Co-author Dorothy N. Walwer)
- 1999 Phase I Archaeological Reconnaissance Survey of the Proposed Lake Laconia Estates Development (Section 1), Westbrook, Connecticut. Report commissioned by Russell Waldo, Professional Engineer of Guilford, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Proposed AMS-Risdon Development in Middlebury, Connecticut. Report commissioned by Fletcher-Thompson, Inc. of Bridgeport, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase I Archaeological Assessment and Documentation Survey of the New London Waterfront Park Project in New London, Connecticut. Report commissioned by the City of New London, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase Ia Archaeological Assessment Survey of the Blue Ridge Sewer Project in Berlin, Connecticut.

 Report commissioned by the Kensington Fire District of Berlin, Connecticut (Co-author Dorothy N. Walwer).
- 1999 Phase I Archaeological Reconnaissance Survey of the Proposed Wildrose Avenue 4-Unit Housing Development in Guilford, Connecticut. Report commissioned by the Mutual Housing Association of South Central Connecticut, Inc. of New Haven, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the South Farms Housing Development in Colchester, Connecticut. Report commissioned by Environmental Planning & Soil Science, LLC of Ivoryton, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance Survey of the Proposed Greater Waterbury Cancer Center in Waterbury, Connecticut. Report commissioned by Gilbane Building Company of Glastonbury, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance Survey of the Proposed New Middle School in Westport, Connecticut. Report commissioned by the New Middle School Building Subcommittee of Westport, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance Survey of the Bell Atlantic Mobile Proposed Westport Cell Sites in Westport, Connecticut. Report commissioned by Bell Atlantic Mobile of Wallingford, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Proposed Upper Elementary School in Ridgefield, Connecticut. Report commissioned by the First Selectman's Office of Ridgefield, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance and Phase II Intensive Archaeological Survey of the Proposed New Milford High School Complex in New Milford, Connecticut. Report commissioned by the New Milford Building Commission of New Milford, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase II Intensive Archaeological Survey of the Brookfield Subdivision in Seymour, Connecticut.
 Report commissioned by Bargas Construction Company of Monroe, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase I Archaeological Reconnaissance Survey of the Brookfield Subdivision in Seymour, Connecticut.
 Report commissioned by Bargas Construction Company of Monroe, Connecticut (Co-author Dorothy N. Walwer).
- 1998 Phase II Intensive Archaeological Survey of the Trout Brook Valley Golf Course and Housing Development in Easton and Weston, Connecticut. Report commissioned by National Fairways, Inc. of Greenwich, Connecticut (Co-author Michael Gimigliano of Environmental Consulting Associates).
- 1997 Phase I Archaeological Reconnaissance Survey of the Proposed Mohegan Elderly Housing Complex.
 Report commissioned by the Mohegan Tribe of Montville, Connecticut (Co-author Dorothy N. Walwer).

- 1997 Phase Ib Archaeological Reconnaissance Survey Report of the Trout Brook Valley Golf Course and Housing Development in Easton and Weston, Connecticut. Report commissioned by National Fairways, Inc. of Greenwich, Connecticut (Co-author Michael Gimigliano of Environmental Consulting Associates).
- 1997 Phase III Archaeological Data Recovery Report of the "Old Coe Place" in Ansonia, Connecticut. Report commissioned by the Town of Ansonia, Connecticut (Co-author Dorothy N. Walwer).
- 1997 Phase Ia Archaeological Assessment Survey Report of the Trout Brook Valley Golf Course and Housing Development in Easton and Weston, Connecticut. Report commissioned by National Fairways, Inc. of Greenwich, Connecticut (Co-author Michael Gimigliano of Environmental Consulting Associates).
- 1997 Phase I Archaeological Reconnaissance Survey Report of the Proposed MPO in South Windsor, Connecticut. Report commissioned by the United States Postal Service, Facilities Service Office of Windsor, Connecticut (Co-author Dorothy N. Walwer).
- 1997 Phase I Archaeological Reconnaissance Survey Report of the Proposed United States Postal Service Pawcatuck Carrier Annex in Stonington, Connecticut. Report commissioned by the United States Postal Service, Facilities Service Office of Windsor, Connecticut (Co-author Dorothy N. Walwer).
- 1996 Phase I Archaeological Reconnaissance Survey Report of the Proposed Ansonia High School Complex in Ansonia, Connecticut. Report commissioned by the Town of Ansonia, Connecticut (Co-author Dorothy N. Walwer).
- 1996 Survey of Native American Burials and Cemeteries East of the Connecticut River Report commissioned by the Connecticut Historical Commission of Hartford, Connecticut.
- 1996 Phase I Archaeological Reconnaissance Survey Report of the Bell Atlantic NYNEX Mobile Cellular Telecommunications Tower Facility in Orange, Connecticut. Report commissioned by Bell Atlantic NYNEX Mobile of Wallingford, Connecticut (Co-author Dorothy N. Walwer).
- Phase Ib Archaeological Reconnaissance Survey Report of the Mulcahy Complex in Meriden, Connecticut.

 Report commissioned by the Department of Public Works, State of Connecticut in Hartford,

 Connecticut (Co-author Dorothy N. Walwer).
- 1995 Phase I Archaeological Reconnaissance Survey Report of the Riverview Estates Resubdivision in Waterford, Connecticut. Report commissioned by the Castle Hill Development, Inc. of Waterford, Connecticut (Co-author Dorothy N. Walwer).
- 1995 Phase I Archaeological Reconnaissance Survey Report of Leon's Restaurant II in North Haven, Connecticut. Report commissioned by Leon's Restaurant of New Haven, Connecticut (Coauthor Dorothy N. Walwer).
- 1994 Phase I Archaeological Reconnaissance Survey Report of the Metro Mobile Telecommunications Facility in Killingworth, Connecticut. Report commissioned by Bell Atlantic Mobile of Wallingford, Connecticut (Co-author Dorothy N. Walwer).
- 1994 Phase I Archaeological Reconnaissance Survey Report of the Highlands Water Supply System in Ledyard, Connecticut. Report commissioned by the Town of Ledyard, Connecticut (Co-author Dorothy N. Walwer).
- 1994 Faunal Analysis Report for the Driving Range Site (33-Ha-586) in Hamilton County, Ohio. Report commissioned by Kemron Environmental Services of Cincinnati, Ohio (Co-author Dorothy N. Walwer).
- Analysis of flotation macroremains from excavations at Castillo de San Felipe del Morro, Puerto Rico.

 Appendix D: El Morro Botanical Analysis Report. Report commissioned by Pan American

 Consultants, Inc. of Tuscaloosa, Alabama (Co-author Dorothy N. Walwer).
- 1993 Archaeological Report of the Creek Council House Restoration Project. Report commissioned by the City of Okmulgee, Oklahoma for the Creek Indian Memorial Association of Okmulgee, Oklahoma.



Attachment 2. Additional Site Information

Describe any additional structures, access roads, utility lines, fences, easements, or other construction planned for the site in conjunction with the proposed tower and related facilities.

Please refer to the Cover Letter and to Attachment 12 – Maps for the Project Plans for the proposed facility.

Attachment 3. Tribal/NHO Involvement

At an early stage in the planning process, the Nationwide Agreement requires the Applicant to gather information from appropriate Indian Tribes or Native Hawaiian Organizations ("NHOs") to assist in the identification of historic properties of religious and cultural significance to them. Describe measures taken to identify Indian tribes and NHOs that may attach religious and cultural significance to historic properties that may be affected by the undertaking within the Areas of Potential Effects ("APE") for direct and visual effects. If such Indian tribes or NHOs were identified, list them and provide a summary of contacts by either the FCC, the Applicant, or the Applicant's representative. Provide copies of relevant documents, including correspondence. If no such Indian tribes or NHOs were identified, please explain.

Lucas Environmental, LLC completed the Tower Construction Notification System (TCNS) on October 6, 2017 with notice of organizations e-mails/letters sent on October 13, 2017. The attached FCC Notification email lists the Tribes identified through the TCNS process. Follow up correspondence, when necessary, was completed via the methods listed on the attached email as acceptable to that Tribe. The New Tower Submission package will be copied to the appropriate Tribes as requested. Based upon location of this site and preliminary responses via the TCNS received to date, the Narragansett Indian Tribe, Keweenaw Bay Indian Community, and the Lac Vieux Desert Band of Lake Superior Chippewa Indians, Mashpee Wampanoag Indian Tribe, Wampanoag Tribe of Gay Head – Aquinnah, and Bad River Band of Lake Superior Tribe of Chippewa Indians will require a review of this project. The invitations to comment were submitted on October 13, 2017.

Tribal communication to date for this project is summarized in the table on the following page.



Tribe Name	Initial Notification (via TCNS or E-mail)	Response to Initial Contact	Contact Attempts	Response to Final Attempt	Action Recommended
Narragansett Indian Tribe	10-13-17 (TCNS)	Requested Consultation	10-26-17 12-19-17 01-11-18 03-06-18 03-29-18	FCC Referral 04-16-18	Waiting for FCC Response
Keweenaw Bay Indian Community	10-13-17 (TCNS)	Requested Consultation	10-26-17	11-14-17	No Properties of Interest
Lac Vieux Desert Band	10-13-17 (TCNS)	Requested Consultation	10-26-17	10-31-17	No Adverse Effect
Wampanoag Tribe of Gay Head Aquinnah	10-13-17 (TCNS)	No Response	10-26-17 12-19-17 01-11-18 01-29-18 +Numerous Phone Calls	FCC Referral 05-03-18	Waiting for FCC Response
Mashpee Wampanoag Tribe	10-13-17 (TCNS)	Requested Consultation	10-26-17 11-20-17	Ongoing	Requested Phase 1B Archaeological Investigation – Ongoing
Bad River Band	10-13-17 (TCNS)	No Response w/in 30 days of TCNS	N/A	N/A	No Interest



Attachment 4. Local Government

a. Has any local government agency been contacted and invited to become a consulting party pursuant to Section V.A. of the Nationwide Agreement? If so, list the local government agencies contacted. Provide a summary of contacts and copies of any relevant documents (e.g., correspondence or notices).

The Town of Mashpee Planning Board office was notified of the proposed project on October 26, 2017 and was invited to comment on the proposed project's potential effects on Historic Properties as well as indicate whether they are interested in consulting further on the proposed project. A copy of our correspondence with the Town of Mashpee is attached. As of the date of this report, no response has been received.

b. If a local government agency will be contacted but has not been to date, explain why and when such contact will take place.

Not applicable.



October 26, 2017

Town of Mashpee Planning Board Attn: F. Thomas Fudala, Town Planner 16 Great Neck Road North Mashpee, MA 02649

Re: Invitation to Comment

TCNS Notification ID# 162632 Site Name: Mashpee Fire Station #2

Site #: MA-5112

101 Red Brook Road, Mashpee, MA 02649

Dear Mr. Fudala and Members of the Planning Board,

Blue Sky Towers, LLC proposes to construct a wireless facility at 101 Red Brook Road in Mashpee, Massachusetts. This notice is provided pursuant to the Nationwide Programmatic Agreement for the Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (47 C.F.R. pt.1 app. C § V(C). A notice will also be published in a local newspaper to inform the public, in addition to any requirements that are part of the zoning and permitting process.

Please note that we are requesting your review of the attached information as part of the Section 106 process only and not as part of the local zoning process. We are only seeking comments related to the proposed project's potential effects on historic properties. Enclosed is a copy of the USGS topographic quadrangle map and aerial map with the proposed location of the work highlighted. In addition, we have provided a Project Summary Form if you require a more detailed description of the project.

Consistent with the timelines outlined in the Nationwide Programmatic Agreement and FCC-USET Best Practices Agreement, we respectfully request that you please respond within 30 days of receipt of this letter with an opinion of interest or no interest. To submit comments regarding potential effects to historic properties, please contact me at Lucas Environmental, LLC, 500A Washington Street, Quincy, MA 02169 or via telephone at 617.405.4140 and reference the Site # in all correspondence. Please do not hesitate to contact me if you have any questions or concerns about the proposed project.

Thank you for your consideration and assistance during this review.

Sincerely,

LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, Principal & Manager, PWS

Environmental Consultant/Soil Scientist

T: 617.405.4140; F: 617.405.4465; E-mail: cml@lucasenvironmental.net

Enclosures: Project Summary Form; Figures

cc: Blue Sky Towers, LLC – Sean Gormley (electronic copy)

ProTerra Design Group, LLC – Tom Johnson (electronic copy)

PS Form 3811, July 2015 PSN 7530-02-000-9053

7017 1450 0000 6418 4354

Restricted Delivery

Domestic Return Receipt

ail Restricted Delivery



Attachment 5. Public Notice

Describe measures taken to obtain public involvement in this project (e.g., notices, letters, or public meetings). Provide copies of relevant documentation.

Attached, please find a copy of the request for the legal notice regarding the proposed telecommunications installation that was posted in The Enterprise on November 3, 2017. As of the date of this submission packet, no comments regarding this notice have been received by Lucas Environmental, LLC.

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LEGAL NOTICES











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Kentuckey straight bourbon whiskey hand

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4 head high speed rewind SLV 575 UC,

remote and cleaning tape, \$20. Frames, lot

of 29, various sizes, bent metal, new, \$25.

DVD and CD OZZFEST 10th anniversary

live, 2.5 hours of rockin' footage, new, \$8.

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\$100. 4 dining room chairs Ethan Allen

dark pine, \$20 each. Call 774-602-8965

DEHUMIDIFIER Magic Chef, \$75.Pair of

Woodbury Pewter based end table lamps

with parchment shades, \$125 for the pair.

FREE Girls White Desk with book case top

Party punch bowl, glass, 12 cups with

handles, glass ladle, \$30. Mah Jong set

DOG LEASH NEW from UK. 1/2"X 56"

supple leather braided at both ends with

brass swivel clasp. Must see: \$32.Dog roll-

up traveling mat NEW 3 pocket plus shoul-

der strap 40"X60" 1 side polyester leash

\$22. Dog massager NEW in box battery

operated, \$10. Dog Candle holder NEW

metal sleek and artsy signed 6"X3"X10"

\$20. Dog decrotive pillow, 17"X11" black

2 POTTERY BARN full/ queen duvet

covers. One is matine toile sprout green,

one coastal sea life, both 100% cotton,

excellent condition \$75 each/ BO Fileen

Fisher full/ queen duvet, elegant blue/

gray with pillow shams, 100% cotton, Both

rarely used and excellent condition. \$50.

Scottie with red scarf, \$10.

in leather case, \$35. 520-289-3330

in great condition.774-238-8385

tion, new, \$10. 508-778-0025

508-566-3750

HOT DEALS



Falmouth, Massachusetts, being all and singular the premises described in said mortgage to wit: The land with the buildings thereon, situated in that part of Falmouth, Massachusetts, called East Falmouth, and being further described

LEGAL NOTICES

NORTHERLY: by Lot #6 as shown on a plan hereinafter mentioned, on hundred thirteen and 35/100 (113.35) feet

EASTERLY: by Broken Bow Lane as shown on said plan, ninety-four and 00/100 (94.00) feet: SOUTHERLY: by Lot #2 as shown on said plan, ninety-seven and 83/100 (97.83) feet; and WESTERLY: by a portion of land now or formerly of Lawrence Goulart and a portion of land now or formerly of Michael Roncetti et ux, as shown on said plan, ninety-five and 27/100 (95.27) feet. Being shown as Lot 4 on a plan entitled "ROBINWOOD ESTATES for Cosmo D DeVellis Owner-Developer 1 Deerpond Road, East Falmouth, Mass., by Somerville Engineering, Inc., 400 Highland Avenue, Somerville, Mass., Scale 1" = 40', date: August 14, 1969", sand said plan is duly recorded with Barnstable County Registry of Deeds in Plan Book 233 Page 141.

Being the same premises as conveyed to the mortgagor by deed of Federal National Mortgage Association a/k/a Fannie, dated March 23, 2010, recorded with Barnstable County Registry of Deeds, Book 24441, Page 347. The above described premises will be sold SUBJECT TO and with the benefit of all restrictions, easements, improvements, covenants, conditions, building and zoning laws, to any and all unpaid taxes, tax titles. water and

sewer charges, municipal or other public taxes,

assessments or liens, and rights of tenants and

parties in possession, if any. TERMS OF SALE: A deposit of \$7,500.00 DOLLARS shall be paid by the successful bidder to the mortgagee in cash, by certified or by cashier's check at the time and place of the sale as a deposit. The successful bidder will be required to execute an Auction Sale Agreement immediately after the close of the bidding. The balance of the purchase price shall be paid in cash, by certified check. by cashier's check, or other check satis factory to Mortgagee's attorney within thirty (30) days thereafter at the offices of BARSH AND

COHEN, P.C., Attorneys for the Mortgagee,

189 Wells Avenue, Newton, Massachusetts, in

exchange for which and at such time and place,

the deed shall be delivered to the purchaser for recording The Mortgagee reserves the right to amend the foregoing terms of sale by written or oral announcement made before the auction sale, during the sale thereof or at the commencement of or during any postponed sale, the right to bid at the sale, to reject any and all bids, and to postpone the sale up until the time the property is declared sold by the auctioneer. The descrip tion of the premises contained in said mortgage shall control in the event of an error in the Notice of Mortgagee's Sale or its publication

OTHER TERMS TO BE ANNOUNCED AT THE

TIME AND PLACE OF THE SALE. Dated: October 18, 2017 Signed: First Federal Savings Bank Present Holder of said Mortgage By its Attorneys, Barsh and Cohen, P.C. Neil S. Cohen, Esquire Attorney for the Mortgagee 189 Wells Avenue Newton Massachusetts 02459 (617) 332-4700 October 20,27, November 3, 2017

MORTGAGEE'S NOTICE OF SALE OF **REAL ESTATE**

By virtue and in execution of the Power of Sale contained in a certain Mortgage given by Jordan Rachlen and Loretta A. Easton to James B. Nutter & Company, dated April 11, 2007 and recorded with the Plymouth County Registry of Deeds at Book 34398, Page 125, as affected

by a Judgment recorded in said Registry of Deeds at Book 48330, Page 222; of which Mortgage the undersigned is the present holder for breach of the conditions of said Mortgage and for the purpose of foreclosing same will be sold at Public Auction at 9:00 AM on November 13, 2017 at 49 Pine Street, Abington, MA, all and singular the premises described in said Mortgage, to wit:

LEGAL NOTICES

A certain parcel of land with the buildings thereon situated in the corner of Pine Street and Glen Street, Abington, Plymouth County, Massachusetts, bounded and described as follows: Beginning on said Pine Street at the Northwesterly corner of the lot at the junction of said Pine Street, thence running Easterly by Pine Street, six (6) rods to land formerly of Catherine T. Quinlan, now or formerly of the heirs of John J. Skeans, thence; SOUTHERLY by said land now or formerly of Skeans heirs, ten (10) rods to a private way, thence: WESTERLY by said private way (sometimes known as 9th Street) six (6) rods to said Glen Street; thence, NORTHERLY by said Glen Street, ten (10) rods to the point of beginning.

The premises are to be sold subject to and with the benefit of all easements, restrictions. building and zoning laws, liens, attorney's fees and costs pursuant to M.G.L.Ch.183A, unpaid taxes, tax titles, water bills, municipal liens and assessments, rights of tenants and parties in

TERMS OF SALE: A deposit of FIVE THOUSAND DOLLARS AND 00 CENTS (\$5,000.00) in the form of a certified check, bank treasurer's check or money order will be required to be delivered at or before the time the bid is offered. The successful bidder will be required to execute a Foreclosure Sale Agreement immediately after the close of the bidding. The balance of the purchase price shall be paid within thirty (30) days from the sale date in the form of a certified check, bank

treasurer's check or other check satisfactory to

Mortgagee's attorney. The Mortgagee reserves

the right to bid at the sale, to reject any and all

bids, to continue the sale and to amend the terms of the sale by written or oral announcement made before or during the foreclosure sale. If the sale is set aside for any reason, the Purchaser at the sale shall be entitled only to a return of the deposit paid. The purchaser shall have no further recourse against the Mortgagor. the Mortgagee or the Mortgagee's attorney. The description of the premises contained in said mortgage shall control in the event of an error in this publication. TIME WILL BE OF THE ESSENCE

Other terms if any, to be announced at the sale. James B. Nutter & Company Present Holder of said Mortgage, By Its Attorneys ORLANS PC PO Box 540540 Waltham, MA 02454 Phone: (781) 790-7800 14-014030

October 20, 27, 2017 November 3, 2017

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EOE

PUBLIC NOTICE

Site Name: Mashpee Fire Station #2 Site #: MA-5112 101 Red Brook Road, Mashpee, MA 02649

Blue Sky Towers, LLC proposes to construct a wireless telecommunications facility that will consist of panel antennas to be mounted onto the top of a proposed 150-foot tall monopole,

with an optional six-foot high lighting rod (156 feet total height) at 101 Red Brook Road in Mashpee, MA. Associated telecommunications equipment will be located outside at the base of the structure within a 10.000 square foot lease area. In accordance with regulations implementing Section 106 of the National Historic Preservation Act, Blue Sky Towers, LLC hereby solicits public comment concerning its proposal Any comments from interested parties should be made within 30 days of the date

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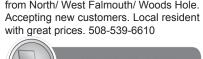
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TUTORING

LEGAL NOTICES

INSTRUCTION

MORTGAGEE'S SALE OF REAL ESTATE By virtue and in execution of the Power of Sale contained in a certain mortgage given by Roxroy C. Taylor and Leah R. Taylor to Mortgage Electronic Registration Systems, Inc. as nominee for First Eastern Mortgage Corporation, dated March 24, 2010 and recorded with the Barnstable County Registry of Deeds in Book 24442, Page 1, of which mortgage the undersigned is the present holder by virtue of an Assignment of Mortgage recorded with Barnstable County Registry of Deeds, Book 26475. Page 242, for breach of the conditions of said mortgage and for the purpose of foreclosing same will be sold at public auction at 10:00 AM, on November 16, 2017 on the mortgaged

premises being known as 34 Broken Bow Lane,

Join the Martha's Vineyard **Savings Bank Team!**

Martha's Vineyard Savings Bank, a local community bank is looking to fill full and part time Teller/CSR positions both on the island and in Falmouth. If you seek a career with an organization that has a strong commitment to the communities we serve than we want to hear from you!

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LEGAL NOTICES



LLC, 500A Washington Street, Quincy, MA 02169, via telephone at 617.405.4140, or email at cml@lucasenvironmental.net

November 3, 2017

COMMONWEALTH OF MASSACHUSETTS LAND COURT **DEPARTMENT OF THE TRIAL COURT** 17SM006268 ORDER OF NOTICE

George J. Mutascio, Individually and as Executor of the Estate of George C. Mutascio Carol A. Mutascio

Laurie L. Henry a/k/a Laurie L. Mutascio

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and to all persons entitled to the benefit of the Servicemembers Civil Relief Act, 50 U.S.C. c. 50 §3901 et seq.:

HSBC Bank USA, N.A.

claiming to have an interest in a Mortgage covering real property in Buzzards Bay (Bourne), numbered 7 Van Bummel Road, given by George C. Mutascio to Mortgage Electronic Registration Systems, Inc. acting solely as a nominee for HSBC Mortgage Corporation (USA), dated June 22, 2007, and recorded in Barnstable County Registry of Deeds in Book 22158, Page 102, and now held by the Plaintiff by assignment, has/have filed with this court a complaint for determination of Defendant's/ Defendants' Servicemembers status

If you now are, or recently have been, in the active military service of the United States of America, then you may be entitled to the benefits of the Servicemembers Civil Relief Act. If you object to a foreclosure of the above mentioned property on that basis, then you or your attorney must file a written appearance and answer in this court at Three Pemberton Square, Boston, MA 02108 on or before December 4, 2017 or you will be forever barred from claiming that you are entitled to the benefits of said Act. Witness, JUDITH C. CUTLER Chief Justice of said Court on October 18, 2017.

> Deborah J. Patterson Recorder 14-015227

November 3 2017

DEPARTMENT OF ENVIRONMENTAL PROTECTION WATERWAYS REGULATION PROGRAM

Notice of License Application Pursuant to M.G.L. Chapter 91 Waterways License Application Number W17-5090

Frederick and Beverly Mercier, Jr. NOTIFICATION DATE: November 3, 2017 Public notice is hereby given of the waterways application by Frederick and Beverly Mercier, Jr. to maintain existing marine railway, bulkhead, pier and floats at 254 Monomoscoy Road, in the municipality of Mashpee, in and over flowed tidelands of Great River. The proposed project has been determined to be water-dependent. The Department will consider all written comments on this Waterways application received within 30 days subsequent to the "Notification Date". Failure of any aggrieved person or group



of ten citizens or more with at least five of the ten residents residing in the municipality(s) in which the license or permitted activity is located, to submit written comments to the Waterways Regulation Program by the Public Comments Deadline will result in the waiver of any right to an adjudicatory hearing in accordance with 310 CMR 9.13(4)(c).

Additional information regarding this application may be obtained by contacting the Waterways Regulation Program at (508) 946-2836. Project plans and documents for this application are on file with the Waterways Regulation Program for public viewing, by appointment, at the address below.

Written comments must be addressed to: Dahlia Medeiros, Environmental Engineer, DEP Waterways Regulation Program, 20 Riverside Drive, Lakeville, MA 02347. November 3, 2017

COMMONWEALTH OF MASSACHUSETTS LAND COURT **DEPARTMENT OF THE TRIAL COURT** 17SM006399 ORDER OF NOTICE

Edward R. Foristall; Patricia Foristall n/k/a Patricia Anne MacKenzie

and to all persons entitled to the benefit of the Servicemembers Civil Relief Act, 50 U.S.C.c. 50 \$3901 et seg :

U.S. Bank Trust, N.A., as Trustee for LSF9 Master Participation Trust

claiming to have an interest in a Mortgage covering real property in East Falmouth (Falmouth), numbered 11 Surrey Lane, given by Edward R. Foristall and Patricia Foristall to Wells Fargo Bank, N.A., dated August 21, 2012, and registered in the Barnstable County Registry District of the Land Court as Document Number 199984 and noted on Certificate of Title Number 163066, and now held by the Plaintiff by assignment, has/have filed with this court a complaint for determination of Defendant's/ Defendants' Servicemembers status

If you now are, or recently have been, in the active military service of the United States of America, then you may be entitled to the benefits of the Servicemembers Civil Relief Act. If you object to a foreclosure of the above mentioned property on that basis, then you or your attorney must file a written appearance and answer in this court at Three Pemberton Square.



Boston, MA 02108 on or before December 4, 2017 or you will be forever barred from claiming that you are entitled to the benefits of said Act Witness, JUDITH C. CUTLER Chief Justice of said Court on October 19, 2017.

> Deborah J. Patterson Recorder 201502-0413-PRF

November 3, 2017

COMMONWEALTH OF MASSACHUSETTS THE TRIAL COURT
PROBATE AND FAMILY COURT Docket No. BA17P1693EA

Estate of: Robert Daniel Brown

Date of Death: 09/05/2017 Barnstable Division 3195 Main Street PO Box 346 Barnstable, MA 02630 508-375-6710

CITATION ON PETITION FOR FORMAL **ADJUDICATION** To all interested persons:

A Petition for Formal Probate of Will with Appointment of Personal Representative has Michale F Brown of Foxboro MA

requesting that the Court enter a formal Decree and Order and for such other relief as requested

in the Petition. The Petitioner requests that: Michale F Brown of Foxboro MA

be appointed as Personal Representative(s) of said estate to serve Without Surety on the bond in an unsupervised administration. IMPORTANT NOTICE

You have the right to obtain a copy of the Petition from the Petitioner or at the Court. You have a right to object to this proceeding. To do so, you or your attorney must file a written appearance and objection at this Court before: 10:00 a.m. on the return day of 11/21/2017 This is NOT a hearing date, but a deadline by which you must file a written appearance and objection if you object to this proceeding . If you fail to file a timely written appearance and objection followed by an Affidavit of Objections within thirty(30) days of the return date, action may be taken without further notice to you. UNSUPERVISED ADMINISTRATION UNDER THE MASSACHUSETTS UNIFORM PROBATE CODE (MUPC)

A Personal Representative appointed under the MUPC in an unsupervised administration is not required to file an inventory or annual accounts

with the Court. Persons interested in the estate are entitled to notice regarding the administration directly from the Personal Representative and may petition the Court in any matter relating to the estate, including the distribution of assets and expenses of administration.

LEGAL NOTICES

WITNESS, Hon. Arthur C Ryley, First Justice of this Court.

Date: October 24, 2017 Anastasia Welsh Perrino

Register of Probate November 3, 2017

NOTICE OF SALE AND DISPOSAL OF PROPERTY

Notice is hereby given that Simply Self Storage located at 33 Village Common Dr. East Falmouth, MA 02536 intends to sell or otherwise dispose of personal property consisting of household and personal effects, office and other equipment in compliance with Mass State Law VIA AN ON-LINE AUCTION AT WWW. STORAGETREASURES.COM ON NOVEM-BER 17, 2017 AT APPROXIMATELY 10:00 AM AND CONCLUDING ON November 22, 2017 AT APPROXIMATELY AT 12:00 PM. THIS PUBLIC SALE WILL RESULT IN THE GOODS BEING SOLD TO THE HIGHEST BIDDER. CERTAIN TERMS AND CONDITIONS APPLY. All units are sold as whole The following units are for sale:

Unit Number **Tenant Name**

B1008 Jennifer Caprio A2067 Jenna Daunais E1013 John Dillon A2088 Jennifer Fleming Mariza Francisco A2022 D2101 Louise Freedman D2040 Leigh French A2009 Matthew Gaboury C1018 **Brandon Gordineer** D1087 Derek Rozelle Derek Rozelle B2074 Susan Thompson B2072 John Umina D1074 Joe Warburton Bruce Wunchell

November 3, 10, 2017

MORTGAGEE'S NOTICE OF SALE OF **REAL ESTATE**

By virtue and in execution of the Power of Sale contained in a certain Mortgage given by Margaret V Herrity to Metlife Bank, dated November 19, 2009 and recorded with the Barnstable County Registry of Deeds as Docoment No. 1129279, of which Mortgage the undersigned is the present holder for breach of the conditions of said Mortgage and for the purpose of foreclosing same will be sold at Public Auction at 10:00 AM on November 13 2017 at 25 Naushon Road Mashpee, MA, all and singular the premises described in said Mortgage, to wit:

The land referred to in this Commitment is described as follows. The following land situated in Mashpee, in the County of Barnstable and Commonwealth of Massachusetts. The land with all buildings and improvements thereon in Mashpee, Barnstable County, MA, shown as Lot 3D on a plan entitled "Plan of Land in Mashpee, Mass. For Mid-Cape Equity Trust" Scale 1"= 40' dated July 1, 1974, drawn by Eldredge Surveying Co, 33 North Main Street, South Yarmouth, Mass. Recorded With Barnstable Registry of Deeds as Plan Book 286, Page 46. Parcel ID Map 38 04 035 003D

Being the same property conveyed to Margaret V Herrity by Deed recorded 12/01/09 in Book 10907, Page 216

Known As. 25 Naushon Rd, Mashpee, MA

The premises are to be sold subject to and with the benefit of all easements, restrictions building and zoning laws, liens, attorney's fees and costs pursuant to M.G.I. Ch 183A, unpaid taxes, tax titles, water bills, municipal liens and assessments, rights of tenants and parties in possession. TERMS OF SALE:

A deposit of FIVE THOUSAND DOLLARS AND 00 CENTS (\$5,000.00) in the form of a certified check, bank treasurer's check or money order will be required to be delivered at or before the time the bid is offered. The successful bidder will be required to execute a Foreclosure Sale Agreement immediately after the close of the bidding. The balance of the purchase price shall be paid within thirty (30) days from the sale date in the form of a certified check, bank treasurer's check or other check satisfactory to Mortgagee's attorney. The Mortgagee reserves the right to bid at the sale, to reject any and all bids, to continue the sale and to amend the terms of the sale by written or oral announcement made before or during the foreclosure sale. If the sale is set aside for any reason, the Purchaser at the sale shall be entitled only to a return of the deposit paid. The purchaser shall have no further recourse against the Mortgagor the Mortgagee or the Mortgagee's attorney The description of the premises contained in said mortgage shall control in the event of an error in this publication. TIME WILL BE OF THE ESSENCE

Other terms if any, to be announced at the sale

NOT AT HOME?

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To setup visit: Capenews.net/eedition Or call us at: 508-299-8379



Attachment 6. Additional Consulting Parties

List additional consulting parties that were invited to participate by the Applicant, or independently requested to participate. Provide any relevant correspondence or other documents.

The Town of Mashpee Historic Commission was notified of the proposed project on October 26, 2017 and invited to comment on the proposed project's potential effects on Historic Properties as well as indicate whether they are interested in consulting further on the proposed project. As of the date of this report, no response has been received.



October 26, 2017

Town of Mashpee Historic Commission Attn: Ava Costello, Chairman 16 Great Neck Road North Mashpee, MA 02649

Re: Invitation to Comment

TCNS Notification ID# 162632 Site Name: Mashpee Fire Station #2

Site #: MA-5112

101 Red Brook Road, Mashpee, MA 02649

Dear Members of the Historic Commission,

Blue Sky Towers, LLC proposes to construct a wireless facility at 101 Red Brook Road in Mashpee, Massachusetts. This notice is provided pursuant to the Nationwide Programmatic Agreement for the Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (47 C.F.R. pt.1 app. C § V(C). A notice will also be published in a local newspaper to inform the public, in addition to any requirements that are part of the zoning and permitting process.

Please note that we are requesting your review of the attached information as part of the Section 106 process only and not as part of the local zoning process. We are only seeking comments related to the proposed project's potential effects on historic properties. Enclosed is a copy of the USGS topographic quadrangle map and aerial map with the proposed location of the work highlighted. In addition, we have provided a Project Summary Form if you require a more detailed description of the project.

Consistent with the timelines outlined in the Nationwide Programmatic Agreement and FCC-USET Best Practices Agreement, we respectfully request that you please respond within 30 days of receipt of this letter with an opinion of interest or no interest. To submit comments regarding potential effects to historic properties, please contact me at Lucas Environmental, LLC, 500A Washington Street, Quincy, MA 02169 or via telephone at 617.405.4140 and reference the Site # in all correspondence. Please do not hesitate to contact me if you have any questions or concerns about the proposed project.

Thank you for your consideration and assistance during this review.

Sincerely,

LUCAS ENVIRONMENTAL, LLC

Christopher M. Lucas, Principal & Manager, PWS

Environmental Consultant/Soil Scientist

T: 617.405.4140; F: 617.405.4465; E-mail: cml@lucasenvironmental.net

Enclosures: Project Summary Form; Figures

cc: Blue Sky Towers, LLC – Sean Gormley (electronic copy)

ProTerra Design Group, LLC – Tom Johnson (electronic copy)

PS Form 3811, July 2015 PSN 7530-02-000-9053

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Attachment 7. Areas of Potential Effects

a. Describe the APE for direct effects and explain how this APE was determined.

The APE for direct effects is limited to the area of potential ground disturbance and any property, or any portion thereof, which will be physically altered or destroyed by the undertaking. The APE for direct effects is limited to the proposed work area for construction of the facility including the tower structure, equipment area, and associated grading.

b. Describe the APE for visual effects and explain how this APE was determined.

The presumed APE for visual effects for construction of new Facilities from which the Tower will be visible is the area within a half mile from the tower site if the proposed Tower is 200 feet or less in overall height. Based on the proposed monopole height of 150 feet and an additional six (6) feet of appurtenances with the total height at 156 feet, the visual APE for this undertaking is designated as 0.5 miles. The visual APE is shown on the maps up to 0.50 miles and is included in Attachment 12.



Attachment 8. Historic Properties Identified in the APE for Visual Effects

a. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for visual effects that is listed in the National Register, has been formally determined eligible for listing by the Keeper of the National Register, or is identified as considered eligible for listing in the records of the SHPO/THPO, pursuant to Section VI.D.1.a. of the Nationwide Agreement.¹

A Cultural Resources Report entitled "Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA" was prepared by Nicolas Avery and included with Attachment 12.

b. Provide the name and address (including U.S. Postal Service ZIP Code) of each Historic Property in the APE for visual effects, not listed in Attachment 8a, identified through the comments of Indian Tribes, NHOs, local governments, or members of the public. Identify each individual or group whose comments led to the inclusion of a Historic Property in this attachment. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63).

As of the date of this report, Lucas Environmental, LLC has not received comments from Indian Tribes, NHOs, local governments, or members of the public that identify Historic Properties in the APE for visual effects that are not listed in Attachment 8a.

c. For any properties listed on Attachment 8a that the Applicant considers no longer eligible for inclusion in the National Register, explain the basis for this recommendation.

Not applicable.

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¹ Pursuant to Section VI.D.2.a. of the Nationwide Agreement, Applicants shall make a reasonable and good faith effort to identify above ground and archeological historic properties, including buildings, structures, and historic districts, that lie within the APE for direct effects. Such reasonable and good faith efforts may include a field survey where appropriate.



Attachment 9. Historic Properties Identified in the APE for Direct Effects

a. List all properties identified in Attachment 8a or 8b that are within the APE for direct effects.

There are no properties located within the APE for direct effects.

b. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for direct effects, not listed in Attachment 9a, that the Applicant considers to be eligible for listing in the National Register as a result of the Applicant's research. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63). For each property that was specifically considered and determined not to be eligible, describe why it does not satisfy the criteria of eligibility.

There are no properties located within the APE for direct effects.

c. Describe the techniques and the methodology, including any field survey, used to identify historic properties within the APE for direct effects. If no archeological field survey was performed, provide a report substantiating that: i) the depth of previous disturbance exceeds the proposed construction depth (excluding footings and other anchoring mechanisms) by at least 2 feet; or, ii) geomorphological evidence indicates that cultural resource-bearing soils do not occur within the project area or may occur but at depths that exceed 2 feet below the proposed construction depth. 3

An architectural reconnaissance field review was conducted by Nicolas Avery. A Cultural Resources Report entitled "Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA" was prepared by Nicolas Avery, and is included in Attachment 12. Furthermore, Predictive Viewshed Mapping and Photographic Simulations were conducted/prepared by Virtual Site Simulations, LLC to demonstrate the visibility of the surrounding area with in the APE. The results are including in Attachment 12.

An Archaeological Resource Assessment of Direct Effects was completed by Barbara Donohue, RPA, on December 6, 2017. Based on the results of the assessment, no further archaeological investigation was recommend. The Mashpee Wampanoag Tribe requested a Phase 1 Intensive (Locational) Archaeological Survey which was completed by Archaeological Consulting Services (ACS) in May 2018. ACS recommends no further archaeological conservation efforts for the proposed project. The reports are included in Attachment 12.

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² Section VI.D.1.a. of the Nationwide Agreement requires the Applicant to review publicly available records to identify within the APE for visual effects: i) properties listed in the National Register; ii) properties formally determined eligible for listing by the Keeper of the National Register; iii) properties that the SHPO/THPO certifies are in the process of being nominated to the National Register; iv) properties previously determined eligible as part of a consensus determination of eligibility between the SHPO/THPO and a Federal Agency or local government representing the Department of Housing and Urban Development (HUD); and, v) properties listed in the SHPO/THPO Inventory that the SHPO/THPO has previously evaluated and found to meet the National Register criteria, and that are identified accordingly in the SHPO/THPO Inventory.

³ Under Section VI.D.2.d. of the Nationwide Agreement, an archeological field survey is required even if one of these conditions applies, if an Indian tribe or NHO provides evidence that supports a high probability of the presence of intact archeological Historic Properties within the APE for direct effects.



Attachment 10. Effects on Identified Properties

For each property identified as a Historic Property in Attachments 8 and 9:

a. Indicate whether the Applicant believes the proposed undertaking would have a) no effect; b) no adverse effect; or, c) an adverse effect. Explain how each such assessment was made. Provide supporting documentation where necessary.

A Cultural Resources Report entitled "Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA" was prepared by Nicolas Avery and included with Attachment 12. Based upon this assessment, there will be no adverse effect on any historic properties identified.

b. Provide copies of any correspondence and summaries of any oral communications with the SHPO/THPO.

As of the date of this report, LE has had no correspondence with the SHPO. Correspondence with the appropriate THPO has been enclosed in Attachment 3. ACS obtained a permit (#3820) to complete the Phase 1 Intensive (Locational) Archaeological Survey.

c. Describe any alternatives that have been considered that might avoid, minimize, or mitigate any adverse effects. Explain the Applicant's conclusion regarding the feasibility of each alternative.

As noted above, no adverse effects are expected as a result of the proposed facility, therefore alternatives were not evaluated that might avoid, minimize, or mitigate any adverse effects.



The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth Massachusetts Historical Commission

PERM	IIT TO CONDUC	T ARCHAEOLOGICAL F	TIELD INVESTIGAT	ION
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Permit Number	3820	Date of Issue	April 2, 2018	
	0	Expiration Date	April 2, 2019	-
Aı	cchaeological	. Consulting Servic	es	is hereby
authorized to co	nduct an arch	naeological field	nvestigation pu	rsuant to
Section 27C of C	hapter 9 of 0	General Laws and ac	cording to the	regulations
outlined in 950	CMR 70.00.			
Sky Tower Wirel	ess Telecomm	unications Facility	y, 101 Red Brook	Road, Mashpee
		Project Location	L	
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Attachment 11. Photographs

Except in cases where no Historic Properties were identified within the Areas of Potential Effects, submit photographs as described below. Photographs should be in color, marked so as to identify the project, keyed to the relevant map (see Item 12 below) or text, and dated; the focal length of the lens should be noted. The source of any photograph included but not taken by the Applicant or its consultant (including copies of historic images) should be identified on the photograph.

a. Photographs taken from the tower site showing views from the proposed location in all directions. The direction (e.g., north, south, etc.) should be indicated on each photograph, and, as a group, the photographs should present a complete (360 degree) view of the area around the communications tower or non-tower structure.

See attached photographic documentation. Additionally, photographs of the proposed tower location are included in the Archaeological Reports included in Attachment 12.

b. Photographs of all listed and eligible properties within the Areas of Potential Effects.

See Visual Impact Assessment of Proposed Monopole Installation in Attachment 12.

c. If any listed or eligible properties are visible from the proposed tower site, photographs looking at the tower site from each historic property. The approximate distance in feet (meters) between the site and the historic property should be included. If any listed or eligible properties are within the APE, photos looking at each historic property should be included.

See Visual Impact Assessment of Proposed Monopole Installation in Attachment 12. Predictive Viewshed Mapping and Photographic Simulations were conducted/prepared by Virtual Site Simulations, LLC to demonstrate the visibility of the surrounding area with in the APE. The results are including in Attachment 12.

d. Aerial photos of the APE for visual effects, if available.

See Aerial Map – Attachment 12.





Photograph 1: View of tower location looking north.



Photograph 2: View looking north from the proposed tower location.





Photograph 3: View of proposed tower location looking east.



<u>Photograph 4:</u> View looking east from proposed tower location.





Photograph 5: View of the proposed tower location looking west.



<u>Photograph 6:</u> View looking west from proposed tower location.





<u>Photograph 7:</u> View of proposed tower location looking south.



<u>Photograph 8:</u> View looking south from proposed tower location.



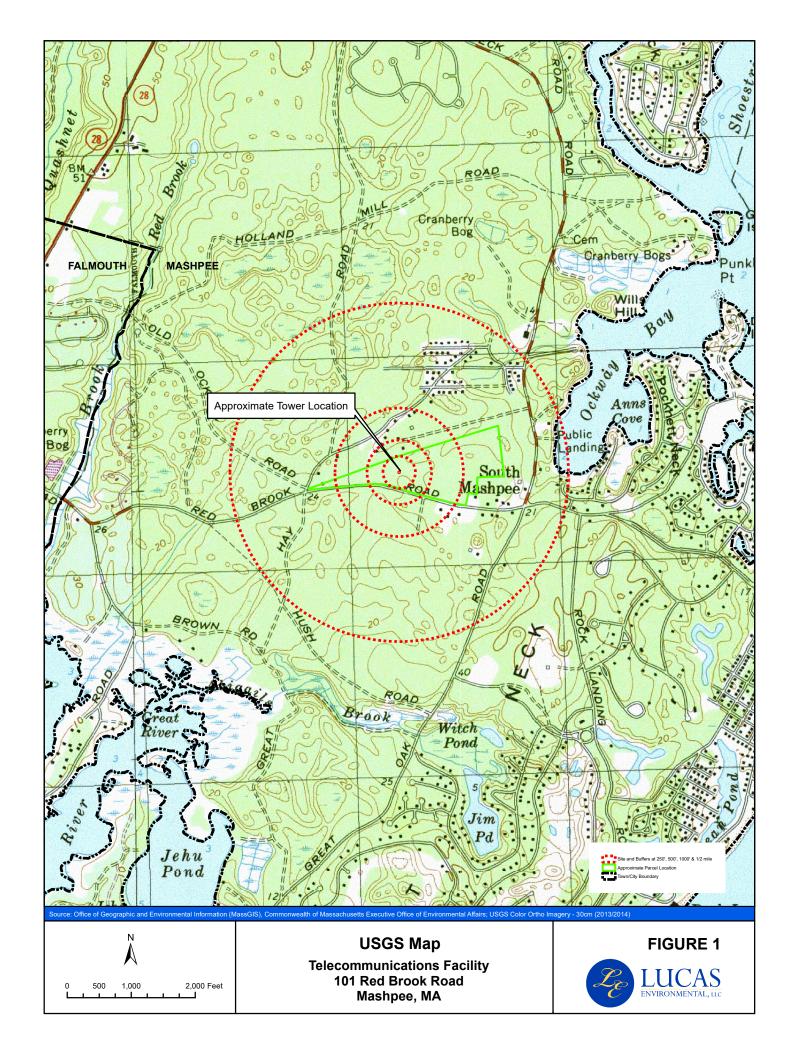
Attachment 12. Maps

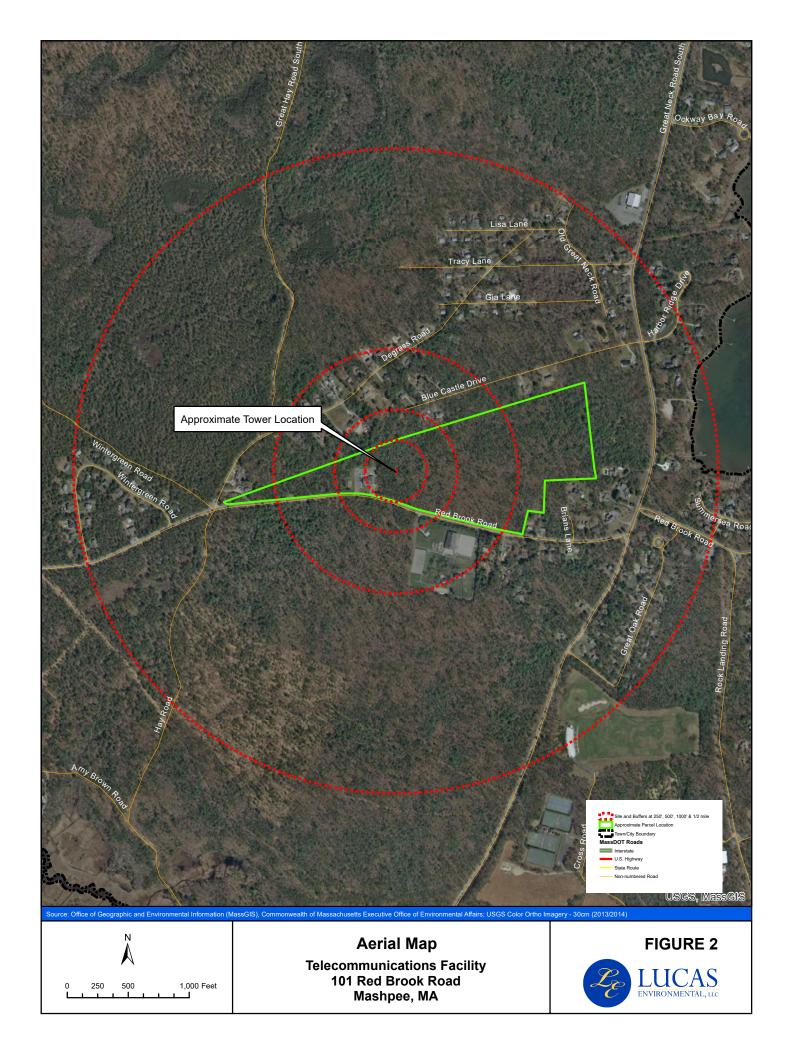
Include one or more 7.5-minute quad USGS topographical maps that:

- **a.** Identify the Areas of Potential Effects for both Direct and Visual Effects. If a map is copied from the original, include a key with name of quad and date.
- **b.** Show the location of the proposed tower site and any new access roads or other easements including excavations.
- c. Show the locations of each property listed in Attachments 8 and 9.
- d. Include keys for any symbols, colors, or other identifiers.
- e. Submit color maps whenever possible.

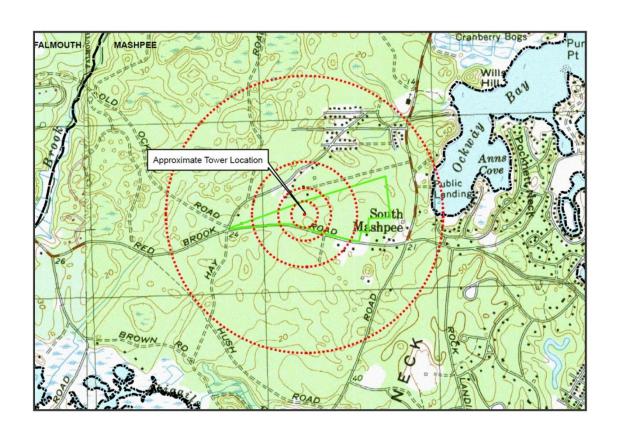
The following maps have been prepared and attached to this report:

- Figure 1 USGS Topographic Map
- Figure 2 Aerial Map
- Archaeological Assessment of Direct Effects prepared by Barbara Donohue, RPA, dated December 6, 2017
- Phase 1 Intensive (Locational) Archaeological Survey, prepared by Archaeological Consulting Services, May 2018
- Visual Impact Assessment of Proposed Monopole Installation, Mashpee, MA, prepared by Nicolas Avery, dated April 17, 2018
- Viewshed Mapping Package performed by Virtual Site Simulations, LLC, Dated April 13, 2018
- Photographic Simulation Package performed by Virtual Site Simulations, LLC, Dated April 14, 2018
- Site Plans provided by ProTerra Design Group, LLC, dated September 27, 2017, revised through February 14, 2018





ARCHAEOLOGICAL ASSESSMENT OF DIRECT EFFECTS TELECOMMUNICATIONS TOWER SITE MASHPEE FIRE STATION #2, SITE NUMBER MA-5112 101 RED BROOK ROAD MASHPEE, MA



Prepared for Blue Sky Towers, LLC Attn: Mr. Sean Gormley 352 Park Street, Suite 106 North Reading, MA 01864

ARCHAEOLOGICAL ASSESSMENT OF DIRECT EFFECTS TELECOMMUNICATIONS TOWER SITE MASHPEE FIRE STATION #2, SITE NUMBER MA-5112 101 RED BROOK ROAD

MASHPEE, MA

Prepared by

Barbara Donohue, RPA
Cultural Resource Consultant
42 Sycamore Drive
Leominster, MA 01453

Prepared for

Blue Sky Towers, LLC Attn: Mr. Sean Gormley 352 Park Street, Suite 106 North Reading, MA 01864

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