

FINAL REPORT

OCTOBER 2006

**PHASE I CULTURAL RESOURCES  
RECONNAISSANCE SURVEY OF A PROPOSED  
CELLULAR COMMUNICATIONS TOWER LOCATED  
AT 1027 MIDDLE TURNPIKE EAST,  
MANCHESTER, CONNECTICUT.**

PREPARED FOR:

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## **1.0 Introduction**

This report summarizes the results of a Phase I cultural resources reconnaissance survey of a proposed cellular communications facility to be constructed within an open agricultural field located at 1027 Middle Turnpike East in Manchester, Connecticut. Heritage Consultants, LLC, completed the field investigation portion of this project, performed on behalf of EBI Consulting, Inc., in October of 2006. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the Areas of Potential Effect, information used as project context, the methods by which the current Phase I cultural resources reconnaissance survey was completed, results of the investigation, and management recommendations for the project.

## **2.0 Project Description**

As mentioned above, the proposed cellular communications facility will be located in Manchester, Connecticut (Figure 1). The Areas of Potential Effect are situated at an approximate elevation of 132 m (430 ft) NGVD; they are bounded to the east, north, and west open areas associated with an agricultural field and to the south by Middle Turnpike East. The Areas of Potential Effect consist of a proposed lease area measuring approximately 30 x 30 m (100 x 100 ft) in size and a single proposed access road measuring approximately 60 m (196 ft) in length; the latter will cross an existing agricultural field and it will extend to Middle Turnpike East (Figure 2). The proposed lease area will house an equipment shelter, a cellular communications tower, an ice bridge and posts, a transformer and utility cabinet, and protective bollards. All of these items will be enclosed within a chain link fence.

At the time of survey, the Areas of Potential Effect were characterized by an open, previously plowed agricultural field (Figures 3 through 6). Field methodologies employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing. The details of the field methods, as well as the results of this field effort, are reviewed below.

## **3.0 Background Research**

The current Phase I cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the area of Manchester encompassing the Areas of Potential Effect. This was followed by a review of all previously recorded archeological sites situated within the vicinity of the project area in an effort to determine the archeological context of the region. Finally, this approach entailed the completion of the current Phase I cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the area encompassing the proposed project area; an examination of the pertinent 1983 USGS 7.5' series topographic quadrangle; and a review of all archeological data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage Consultants, LLC. The intent of this review was to identify all previously recorded archaeological sites situated within and/or immediately adjacent to the Areas of Potential Effect. This information was used to develop the archeological context for assessing cultural resources that may be identified during survey.

## **4.0 Project Context: Previous Investigations, Natural & Prehistoric Settings, and Historic Overview**

The following sections provide an overview of the region's natural and prehistoric settings, historic backdrop, and previous cultural resources investigations completed within the vicinity of the Areas of Potential Effect. These brief discussions are included in an effort to provide contextual information relative to the location of the Areas of Potential Effect, its natural characteristics, and their prehistoric and

historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

#### 4.1 Natural Setting

The Northeast Hills ecoregion region consists of a hilly upland terrain located between approximately 40.2 and 88.5 km (25 and 55 mi) to the north of Long Island Sound (Dowhan and Craig 1976). It is characterized by streamlined hills bordered on either side by local ridge systems, as well as broad lowland areas situated near large rivers and tributaries (Dowhan and Craig 1976). Physiography in this region is composed of a series of north-trending ridge systems, the western-most of which is referred to as the Bolton Range and the eastern-most as the Mohegan Range (Bell 1985:45). Elevations in the Northeast Hills range from 121.9 to 243.8 m (400 to 800 ft) above sea level, reaching a maximum of nearly 304.8 m (1,000 ft) above sea level near the Massachusetts border (Bell 1985). The bedrock of the region is composed of Schist and gneiss created during the Paleozoic and well as gneiss and granite created during the Precambrian period (Bell 1985). Soils uplands areas have been deposited on top of glacial till and in the valley they consist of stratified deposits of sand, gravel, and silt (Dowhan and Craig 1976). Vegetation located within the immediate vicinity of the Areas of Potential Effect consists of mixed deciduous forests. Finally, local fauna include rainbow trout, largemouth bass, sucker, rabbit, fox, raccoon, opossum, squirrel, white tailed deer, and a wide variety of terrestrial and aquatic bird species.

#### 4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190 $\pm$ 300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced graters, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, graters, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into three subperiods: the Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from high quality lithics, though some quartz and quartzite specimens have been recovered. Current archeological evidence suggests that Early Archaic groups became more focused on locally available and

smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a “diversity of site types, with both large-scale occupations and small special purpose present” (McBride 1984:96). Thus, based on the available archeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified and studied, they generally encompass less than 500 m<sup>2</sup> in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to “settle into” well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several BROADSPEAR projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually “killed” (intentionally

broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as “characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations” (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting “population aggregations along major rivers, interior lakes, and wetlands” (McBride and Soulsby 1989:50). In sum, archeological evidence indicates that Early Woodland populations consisted a mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archeologically by the use of narrow stemmed and Jack’s Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types indicative of the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine ecozones. Both river confluences and coastal zones were favored areas for the establishment of large

village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use, and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by “1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks” (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

#### 4.3 History of the Proposed Project Region

The Town of East Hartford was separated from its parent town Hartford in 1783, and it included the present town of Manchester until the latter was established in 1823. At the time of the white colonists' arrival, the future Manchester is believed to have lain within the territory of the Podunk Indians, which ran from the Connecticut River eastward to the ridge of hills in Bolton. The Podunks' main villages at that time were located closer to the Connecticut River in East Hartford, but they, as well as their more prehistoric ancestors, also had occupied various sites in Manchester (Spiess and Bidwell 1924). A review of the historical records revealed that the Podunk Indians are best known for becoming embroiled in a bitter dispute with Sequassen, the sachem of Mattatuck Indians who lived in the vicinity of what is now Middletown. This dispute erupted in 1656-1657, and it was centered around the murder of a Mattatuck Indian by a member of the Podunk Tribe. In order to settle the disagreement, Sequassen petitioned Uncas, sachem of the Mohegan Indians and the most prominent Native American in Connecticut at the time, as well as the governor of the Connecticut Colony in an attempt to mediate the dispute. Unfortunately, he met with little success. According to reports by local colonists, the Podunks and the Mohegans seem to have been approximately equal in manpower at that time so a threat of a direct assault by the Mohegans carried little weight. Instead, Uncas secured the surrender of the Podunk murderer by convincing the Podunks that the Mohegans had entered into an alliance with the much more dangerous Mohawks to destroy the Podunk tribe (Barber 1836). While this dispute was apparently resolved, the Podunk Indians continued to experience episodes of discord with their European neighbors and problems with Uncas. Also in 1657, a commission appointed by the colony ordered Uncas to allow the Podunks to return to their homes unmolested, which they apparently had fled (Goodwin 1879).

As a result of a Podunk request in 1659, the General Court of Connecticut specifically ordered that the colonists of the region were not to “molest” the Podunks in the peaceable enjoyment of their lands (Public Records of the Colony of Connecticut, Vol. 1, Pg. 344). This also represented an attempt by the government

to prevent colonists from encroaching on Indian lands and causing further conflicts. Still, disagreements continued and the Podunks appeared before the Colony magistrates several times throughout the 1660s, at which time they were described as being “restless.” It is likely not a coincidence that at about that time the colony took on the task of mediating a boundary settlement between the Podunks and the Mohegans. In addition, a complex dispute among one Thomas Burnham, the Podunks, and the colony government over a sale or lease of land from the sachem Tantinomo to Burnham continued to simmer during this period; unfortunately, it is not known where this land was located (Goodwin 1879). Thus, in this context, the restlessness may have referred to the Podunks’ feeling it was time to move their main villages, to which the colony was strongly opposed. Because of the possibility of violent reaction to colonial policy, the colonial authorities felt it necessary to try to settle these problems.

In sheer numbers, the Podunks were a substantial group up to the time of King Philip’s War in 1675-1676. Although DeForest claimed the group supplied only 60 warriors to the war campaign against the colonists, other historical sources contemporary to the war claim that 200 to 300 Podunk warriors were fielded. Extrapolating from the number of warriors recorded at the time, Spiess suggested that the overall Podunk population may have been as high as 1,500 during the latter decades of the seventeenth century (Spiess 1937). With a colonial victory over King Philip and his allies, the Podunks were largely dispersed. This dispersal is most likely related to fleeing colonial vengeance, which in many instances resulted in capture and sale into slavery. According to Goodwin (1879:34), a “ragged remnant” of the Podunk Tribe remained in 1677, when a dispute about their surviving lands came before the General Assembly. The last mention of a Podunk Indian in the colonial records was in 1722 (Goodwin 1879:34). From an ethnohistorical perspective, however, it should be noted that these assertions of their immediate disappearance rest in large part on patriarchal assumptions; that is, because most of the men did not return from the war, pre-twentieth century observers believed the group effectively ceased to exist at that time, no matter how many women and children remained in the area. DeForest (1852:363) reported that “[a] remnant of the Podunk nation, living on the Hockanum River, remained in East Hartford as late as 1745, but in 1760 had entirely disappeared.” During the eighteenth century, most surviving Native Americans in central and eastern Connecticut, denied access to adequate lands and suffering from severe discrimination, moved westward and joined with other tribes. Goodwin reports, also, that “within the memory of some of our older citizens” in East Hartford there were some Indians living in the Burnside section of town, with a “chief” named Tobias or Toby, and in 1793 a doctor was compensated for medical treatment for an Indian woman there (1879:37). In Manchester, similarly, there were several families still living in the south-east part of town in the early nineteenth century, but they left town after an incident of domestic violence within the group (Spiess and Bidwell 1924). Thus, there may have been a few Native Americans still in the town at the time of the Revolutionary War and in the early nineteenth century. This is not unusual in the history of Connecticut, as many towns have reports of a small number of Native Americans still living within their borders even into the late nineteenth century, often reported as ‘local character’ anecdotes in antiquarian histories.

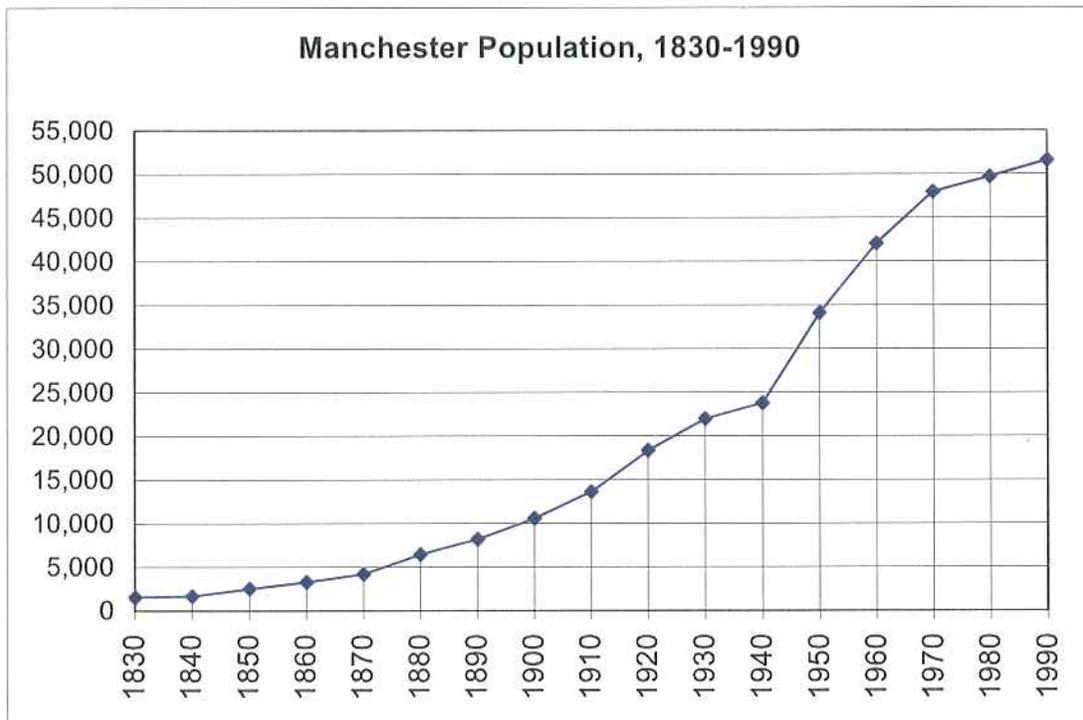
The area that would become Manchester was purchased from the Indians in 1672, when John Talcott of Hartford bought a tract five miles square from the Mohegan Chief Joshua. The historical record does not explain why it was a Mohegan and not a Podunk who sold this land, but it is a fact that the Mohegans, closely allied with the white colonists, had become much more powerful than the Podunks. This purchase shortly thereafter became entangled in the matter of Joshua’s will and estate, which dragged on through the courts and the General Assembly for years. Finally, in 1681, the town of Hartford voted to pay off Talcott’s claim, and in 1682 the estate’s executors deeded the land to them. Aside from the payment, however, nothing was done with the land until 1731, when the Town of Hartford began the process of dividing it for distribution among its inhabitants. The proposed project parcel is located in what was called the “first tier” or series of lots, which abutted the Bolton town line. Even before the 1672 purchase, however, the General Court had made some grants to individuals that were laid out in the area that eventually would become Manchester, which was not an uncommon action by the legislature. As a result, a tavern was set up in the

“Five Miles,” as it was called, in 1713. Indeed, one record indicates that a significant number of people had moved there by 1731, many of them with no legal claim to the land they had improved, and were attempting to organize themselves as a separate town; the Hartford government resolved to oppose this vigorously, though it is not clear what the specific results of this decision were (Spiess and Bidwell 1924).

During the Revolutionary War, the East Hartford (and hence the Manchester) participants were still counted with those representing Hartford, as the towns were still one. At the close of the war in 1783, East Hartford finally was incorporated as a separate town, having made its first such petition nearly 60 years earlier in 1726. In a 1769 petition, which was signed by 156 people, local leaders indicated that the town’s property was worth £17,000. By the time of the 1774 petition, the town’s population was listed at 2,000 people with a total property value of £19,000. The first town meeting was held in November of 1783 (Goodwin 1879). Throughout the latter portion of the eighteenth century and the first half of the nineteenth century, East Hartford was typical of most towns located in the Connecticut River valley. That is, its population was dispersed for the most part and constituted largely of farming families that made their living from the land. In addition to these families, the town possessed several mercantile operations, including saw mills, grist mills, and small manufactories of all sorts.

The process of division between Manchester and East Hartford was initiated in 1758, when the resident there received permission from the General Assembly to have what was called a “winter Parish,” a separate ecclesiastical society during the winter months, when travel was difficult. The first such privilege was for five months, from December to the end of April. In 1763, the “Five Miles” inhabitants requested and received a seven months’ privilege. In 1767 and 1770 they asked for a separate society and were denied because the investigating committee thought they could not support a separate society. The third request, in 1772, was granted, and the new society was given the name Orford. All of this was important because the ecclesiastical societies were official government entities, empowered to lay taxes on all the inhabitants in their boundaries to support the church and ministry. It was also an important sign that a distinct and self-supporting community was forming. First, however, the separation of East Hartford from Hartford occurred in 1783, after much resistance from Hartford. Beginning in 1813, the town’s regular meetings were held alternately in the East Hartford and Orford meetinghouses. Undoubtedly this was in part because in 1812 members of Orford Society had asked the town meeting to support a petition asking the General Assembly to make it a new town. It took another decade for the goal to be achieved, but in 1823 the General Assembly incorporated the town of Manchester, which had the same boundaries as the parish of Orford (Spiess and Bidwell 1924).

In 1830, the year of the first federal census after Manchester’s creation, the town had 1,576 inhabitants. After 1840, the population began a steady rise that saw it pass 5,000 by 1880 and 10,000 by 1900, as can be seen in Chart 1 (CT DEP 1996). Part of the 1840-1850 increase was, however, caused by the addition of two square miles of East Windsor land to Manchester. Overall, this trend reflected the increase in manufacturing work in the town, and a consequent immigration of workers and their families from the region and from overseas. Sawmills were first built in the Five Miles at Hilliardville and Hop Brook during the 1670s, while in 1747 an iron slitting mill was built at Woodland, but shortly closed down because of the English government’s ban on iron manufactures in the colonies.



In the late eighteenth century snuff was manufactured in town, and one of the first paper mills in the state was built before 1775 at Union Village. In addition, in the 1780s two more paper mills appeared in Manchester, while in 1783 a glass factory was built at Manchester Green. Hilliardville also saw a cotton mill built in 1794, the first successful one in the state. Small shops for making cast iron plows, wooden clocks, and blinds and sashes were also present by that time. These were only the earliest beginnings of manufacturing in the town, however, and many of them did not survive long. The true industrialization process did not begin to take off until after 1830. In 1819, the cotton mills at Union Village were re-started and became extremely productive; a new woolen mill at Buckland was built in 1824, and the paper mill at Union Village also was re-opened around 1830, with two additional ones built in town in 1832. By 1845, the town had seven paper mills, two cotton mills, five woolen mills, and two silk mills, all of which employed approximately 400 people. During the nineteenth century, however, the Manchester's chief claim to manufacturing fame was the Cheney silk mills. Sericulture, the raising of silkworms, had begun in the state after the Revolutionary War, and once machinery for making silk thread was developed after 1820, factory production began. In 1835, the Cheney brothers established the mulberry trees and silkworm populations necessary to support such manufacture, and in 1838 began to produce sewing silk on Hop Brook. During the 1830s, a strange episode of speculation in mulberry trees led to escalating prices and high profits, which crashed in 1840. Finally, a blight destroyed surviving trees in 1844. Thereafter, raw silk had to be imported, but this did not prevent the Cheney Brothers operation from becoming the largest and most promising business in town, one that remained in business well into the twentieth century (Spiess and Bidwell 1924).

The 1850 opening of the Hartford, Providence and Fishkill Railroad through Manchester gave the town a further advantage in the manufacturing business, as rail transport of goods and raw materials was less expensive than road transport. A railroad had been planned since 1833, by a Manchester Railroad Company, but it was taken over in 1849 and the road finally built. The paper manufacturing facilities, which had been present in Manchester for many years, increased after 1840 and became an even larger business after 1850, continuing to be important through the late nineteenth century. Other industries of the late nineteenth and

early twentieth centuries included wool and knitted goods, soap, small engines, and machine tools. As of 1924, there were at least 5,270 manufacturing employees living in Manchester, of whom 4,400 worked for Cheney Brothers. (Spiess and Bidwell 1924).

As mentioned above, the proposed project parcel is located north of the route of the Middle Turnpike, which also was known as the Boston Turnpike. This route existed at the time of the Revolutionary War, going from Boston to New York and passing through Manchester on its way to Hartford. Count Rochambeau's army and President Washington both took this road during the Revolutionary War, known as the "middle" way because the two other routes went along the shoreline and through Massachusetts to Springfield. Road maintenance in Connecticut was normally the province of the individual towns; in Manchester's case, there was great difficulty in securing the funds and manpower required to maintain properly. A common solution to this problem was privatization of roads in the form of the incorporation of turnpike companies, which were permitted to charge tolls in exchange for building, improving, and maintaining roads. In 1797, the Boston Turnpike Company was established to improve the old route from Hartford to the Massachusetts line in Thompson. Such projects were frequently opposed, however, and East Hartford managed to block it until 1812, even after which no toll gates were built there. The nearest tollgate was located at Bolton Notch. The portion of the road in Manchester remained a toll road until 1879, when the company's toll rights were canceled (Wood 1919).

Currently, the proposed project items are located on a nine-acre parcel of land between New Bolton Road and East Middle Turnpike, but it was formerly part of a large farm that probably once belonged to John Wickham. The name "J. Wickham" does not appear on an 1849 historic map near the Areas of Potential Effect (Figure 7). No John Wickham, or any Wickham at all, in fact, appears in the 1850 federal census in the appropriate location, although a Daniel Lyman, Daniel Sweetland, Nathaniel McKee, Julius McKee, and Judson McKee – the neighbors on the 1855 map – all appear in the census documents (U. S. Census, 1850, Series: M432 Roll: 41 Page: 435). This suggests that the Wickham house had not been built in 1850. That idea is supported by the fact that John Wickham does appear in the 1860 census, next door to the McKees, Daniel Sweetland, and Diodate Lyman. He was a 58-year-old farmer who owned \$5,000 in real estate and \$1,000 in personal estate, making him the wealthiest member of this group of neighbors. He lived with 58-year-old Malinda, presumably his wife, 24-year-old Emma, and 20-year-old William, also a farmer. Except for Judson McKee, born in New York, all the Wickhams and their neighbors had been born in Connecticut (U.S. Census, 1860, Series: M653 Roll: 77 Page: 338).

A historic map dating from 1869 marks the house of "J. Wickham Est.," along with neighbors D. Lyman, Mrs. R. Sweetland, A. McKee, and J. McKee (Figure 8). Therefore in the 1870 census we find 30-year-old farmer William Wickham instead of John, owning \$3,500 in real estate and \$1,200 in personal estate. He lived with Vermont-born Ann S., 31 years old, and their three children, Almison W. (8 years old), Edward J. (6 years old), and Anna M. (3 years old), as well as his mother Melinda (69 years old) (U.S. Census, 1870, Series: M593 Roll: 103 Page: 49). They were still the wealthiest people in their immediate neighborhood. In the 1880 census, 40-year-old farmer William P. Wickham still lived next door to the McKees. His wife Ann S. was 41 years old, and they had four children at home: Edward J. (16 years old), Anna M. (13 years old), Mira L. (8 years old), and Horace C. (6 years old) (U.S. Census, 1880, Series: T9 Roll: 99 Page: 232). The earliest deed that corresponds with the proposed project parcel was an 1883 sale by William P. Wickham to David F. Dart of Sturbridge, Massachusetts. William sold four tracts, containing a total of 112 acres of land, for \$4,000. The first of these parcels is the one of interest, and was described as bounded by:

N	Mabel L. Cook
E	Henry Annis and George Howard
S	highway, Lewis McKee
W	Arly Brown

and “with buildings” (Manchester Land Records, Vol. 20, Page 317). Dart only kept the land until 1885, when he sold it for \$3,500 to F. L. Bidwell of East Hartford. The description did not change except that Brown’s name was give as Arba H., which better corresponds with the Census information (Manchester Land Records, Vol. 20, Page 507). A map of 1884 happened to capture D. Dart’s ownership of the land, as well as his neighbors A. Brown, Sweetland, L. McKee, and J. McKee (Figure 9).

The land then changed hands twice times in 1897. First, Frank L. Bidwell exchanged it with Charles E. Gager of Wethersfield for other land. The deed stated that the four tracts contained 111 acres instead of 112, and was bounded by:

N	formerly of Mabel L. Cook
E	formerly of Henry Annis and George Howard, William McKee
S	formerly of William McKee, highway, Lewis McKee
W	Charlotte Robinson

and still with the buildings on it (Manchester Land Records, Vol. 27, Page 310). A few months later, Gager exchanged the 111 acres for other land in North Haven with Jane M. Todd and Clarence J. Todd of that town (Manchester Land Records, Vol. 27, Page 339). The next deed is interesting, as it reveals that Jane and Clarence were mother and son, who had received the North Haven land from their husband and father Samuel, to which he had retained a right of life use; the document transfers this life use to the new land in Manchester (Manchester Land Records, Vol. 28, Page 211). Two years later, in 1899, the three of them sold the land to Louisa Pearson, wife of Henry Pearson, of Hartford (Manchester Land Records, Vol. 30, Page 175).

Two days after her purchase, Mrs. Pearson sold the land to John Lewie of Manchester (Manchester Land Records, Vol. 32, Page 12). According to the 1900 census, John Lewie was a 49-year-old farmer originally from Ireland, who had arrived in the U.S. in 1881. His wife, Sarah, was 43 years old and also had arrived from Ireland in 1881; the schedule reports that she had borne eight children, all of whom were still living. Seven of these were living at home, and had all been born in Connecticut: Thomas J., 19 years old, a farm laborer; a daughter apparently named William, 16 years old, a silk weaver; Sarah, 15 years old, whose occupation was given as woolen something (possibly loofer); Robert, 11 years old years old, Ellen, 9 years old, and Frederick, 7 years old, all at school, and finally Lilian, 3 years old. John could read but not write, his wife was entirely illiterate, but they both spoke English (U.S. Census, 1900, Series: T623 Roll: 138 Page: 340). Then in 1907, John sold the property to Frederick and Raymond Lewie, signing the deed with a mark. The description was somewhat similar to that in the previous deed:

N	Frederick C. C. Juul, Fish
E	Fish, Otto Mannel, Ella Martin
S	Ella Martin, Lewis McKee, Boston Turnpike
W	Charlotte Robinson

(Manchester Land Records, Vol. 40, Page 178). The next transaction, in 1910, split off the proposed project parcel from the other three it had been sold with since at least 1883. As guardian of the minors Frederick and Raymond E. Lewie, Thomas J. Lewie sold 82 acres and the buildings on it to Hans Hansen of Hartford for \$1,750 for each of Frederick and Raymond (Manchester Land Records, Vol. 28, Pages 691, 692). The 1910 census lists the widowed Sarah W. Lewis resident on Vinton Street, now the mother of nine surviving children, and still living with four of her children and a son-in-law; son Raymond was nine years old, and a 17-year-old Fred Lewie lived a few doors away, working as a hired man (U.S. Census, 1910, Series: T624 Roll: 131 Page: 122).

Hansen sold 35 acres of the land, with buildings, to William A. Greer in 1916. The deed described it as follows:

N	Andrew Fiedler, formerly of Frederick C. C. Juul
E	other land of the grantor, Carrie E. Carpenter
S	Middle Turnpike
W	Charlotte Robinson

(Manchester Land Records, Vol. 57, Page 318). In 1918, Greer sold the parcel to Frank W. and Maud Stevens LeGeyt of Glastonbury. The description dropped the name of Juul and included Hans Hansen where “other land of the grantor” had been (Manchester Land Records, Vol. 60, Page 127). The LeGeys then sold it to Ellen Brandt Greene in 1919 (Manchester Land Records, Vol. 64, Page 191). In 1921, Greene sold it to John and Clara Calve (Manchester Land Records, Vol. 69, Page 547).

The Calves owned the land until their deaths in the 1960s, and a series of Price & Lee Company city directories provides some details about the family’s lives. In 1925, John and Clara lived at 955 Middle Turnpike East, with their daughter Louisa; John was a farmer, and Louisa was employed at Cheney Brothers (the directory provides a specific abbreviation to indicate Cheney Brothers). In 1929, the directory added Alvira, who worked as a clerk, while Louisa had moved away. The 1930 U.S. Census, however, provides a great deal more detail. John Calve, 50 years old, had been born in Italy, as had his wife, Clara, 46 years old. Both had immigrated in 1903 and become naturalized; John worked as a farmer on a general farm that he owned. Their children were Elvira, 24 years old, a winder at a silk mill (born in New York); Eda, 18 years old, of no occupation (born in Connecticut like the remainder of their siblings); Albert, 17 years old, a laborer at a nursery company; and schoolchildren Sarah, 14 years old, and John, 8 (U.S. Census, 1930, Series: T626 Roll: 267 Page: 27). The Manchester city directories provide details of the family’s life through 1965, reporting the daughters’ employment at Cheney Brothers until they married; Albert’s employment as an auto mechanic and then as a toolmaker in Hartford and East Hartford, and John Jr.’s work as a farmer and toolmaker in East Hartford, until in the 1950s their employment was given as Pratt & Whitney Aircraft Division in East Hartford; and Albert’s son Gerald’s service in the U.S. Marines and then as a policeman in the Manchester Police Department (Price & Lee Company). Although John Calve Sr. remained a farmer until his retirement, his sons and grandson turned to different employment, reflecting the continuing decline of farming as an occupation in Connecticut.

The above-referenced population chart shows the dramatic rise in East Hartford’s population after 1940. Although substantial businesses continued to exist in Manchester, much of this growth was also because of the growth in commuting for employment as a way of life, with East Hartford and Manchester drawing many Manchester residents to work there. The 1934 aerial photograph shows a landscape with agricultural fields, forests, and a scattering of houses (Figure 10). Note also the appearance of New Bolton Road to the north of the Areas of Potential Effect, which provided a straight, widened course for the old Middle Turnpike, at present better known as Route 44. The 1952 and 1957 aerial photographs likewise show a largely rural landscape, though there were some more houses than before (Figures 11 and 12). By 1970, residential subdivisions were visible in the area around the Areas of Potential Effect (Figure 13). In 1986, even more such residential development had occurred, though relatively little additional changes had been made by 2004 (Figures 14 and 15). Through all of this, however, the proposed project parcel itself remained an agricultural field, a remnant of the town’s agricultural past.

#### 4.4 Previous Investigations

As mentioned above, the current effort also involved an examination of the Connecticut State Historic Preservation Office records as they pertain to archeological sites and National Register Properties situated within 0.8 km (0.5 mi) of the Areas of Potential Effect. In addition, the electronic site files maintained by Heritage Consultants, LLC also were examined during the course of this investigation. The results of this literature search revealed that only a single cultural resources investigation has been completed previously

within 0.8 km (0.5 mi) of the proposed project parcel. In addition, no previously identified cultural resources (e.g., archaeological sites or National Register properties) have been recorded within 0.8 km (0.5 mi) of the Areas of Potential Effect. The single previously completed archaeological survey is discussed briefly below.

During May of 2002, Marc Banks, Ph.D., LLC completed a cultural resources investigation of a then-proposed project cellular communications facility on behalf of Tectonic Engineering Consultants P.C. (Figure 16). During that investigation, a total of 8 shovel tests were excavated within the footprint of the proposed cellular communications tower and its associated access road (CHPC 1094; 2002). The test pits measured approximately 50 x 50 cm (19.7 x 19.7 in) in size, and each was excavated in arbitrary 10 cm levels. The shovel tests were terminated upon reaching glacial till or large obstructions, or after extending 20 cm into sterile subsoil. The subsurface testing regime resulted in the recovery of 15 pieces of cultural material, all of which represented a twentieth century component of activity. The recovered cultural material consisted of 7 coal fragments, 1 fence staple, 1 green bottle glass shard, 1 ceramic sherd with blue decoration, 1 ceramic insulator fragment, 3 pieces of plastic packing, and a single wire fragment. All of these items were recovered from the upper 20 cm (7.8 in) of what was labeled "Stratum A." No prehistoric artifacts, or evidence of cultural features were noted during the investigation. As a result of the field investigation, Marc Banks, Ph.D., LLC (2002) concluded that the proposed cellular communications facility would have no impact on cultural resources; thus, no additional testing was recommended.

## **5.0 Field Methods**

Following the completion of the background research, the Areas of Potential Effect were subjected to a Phase I cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide thorough coverage of all portions of the Areas of Potential Effect, including the proposed lease area and associated access road. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the Areas of Potential Effect, as well as photo-documentation of the proposed project area and its immediate surroundings. The subsurface testing portion of this investigation involved the excavation of shovel tests in the four corners and the center of the lease area, as well as the excavation of shovel tests at 15 m (49.2 ft) intervals along the centerline of the proposed access road.

During survey, each shovel test measured 50 cm (19.7 in) in diameter and each was excavated to a depth of 50 cmbs (19.7 inbs) or until sterile subsoil, glacial till, or immovable objects (e.g., boulders) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archeological recordation process.

## **6.0 Curation**

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with Dr. Nicholas Bellantoni, Office of Connecticut State Archaeology, Box U-1023, University of Connecticut, Storrs, Connecticut 06269.

## **7.0 Results of the Investigation and Management Recommendations**

During survey, 10 of 10 (100 percent) planned shovel tests were excavated successfully throughout the Areas of Potential Effect associated with the proposed lease area and access road (Figure 2). A typical shovel test profile contained two strata and it extended to a depth of 50 cmbs (19.7 inbs). Stratum I, which extended from 0 to 35 cmbs (0 to 14 inbs), consisted of a layer of dark brown (10YR 3/3) loam. Stratum II reached from 35 to 50 cmbs (14 to 19.7 inbs) and it was characterized as a deposit of dark yellowish brown (10YR 4/6) loamy sand with minor amounts of gravel. No evidence of cultural features was identified

within the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered. Since no cultural material was identified during survey and no impacts to cultural resources are anticipated, no additional fieldwork is recommended.

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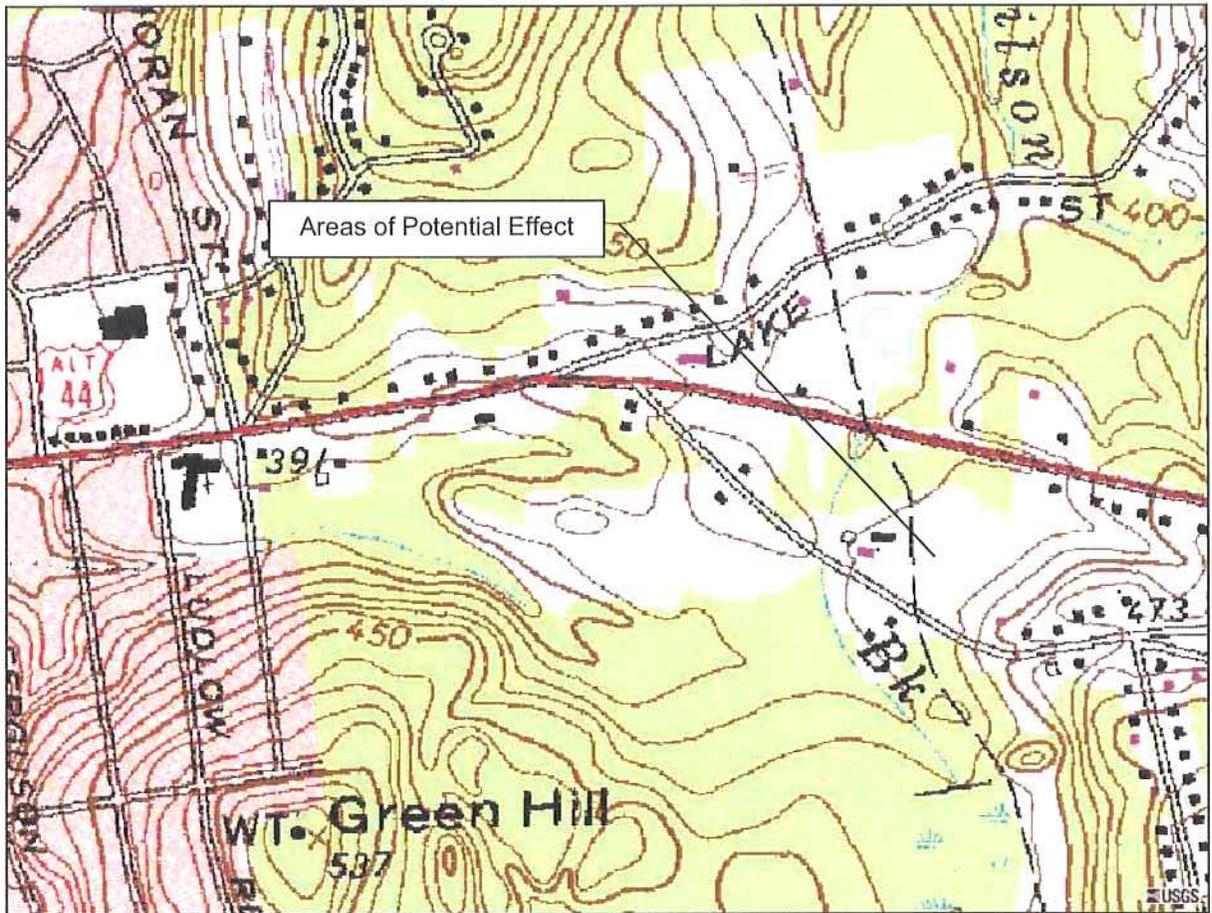


Figure 1. Excerpt from the digital USGS 7.5' series topographic quadrangle depicting the location of the Areas of Potential Effect.

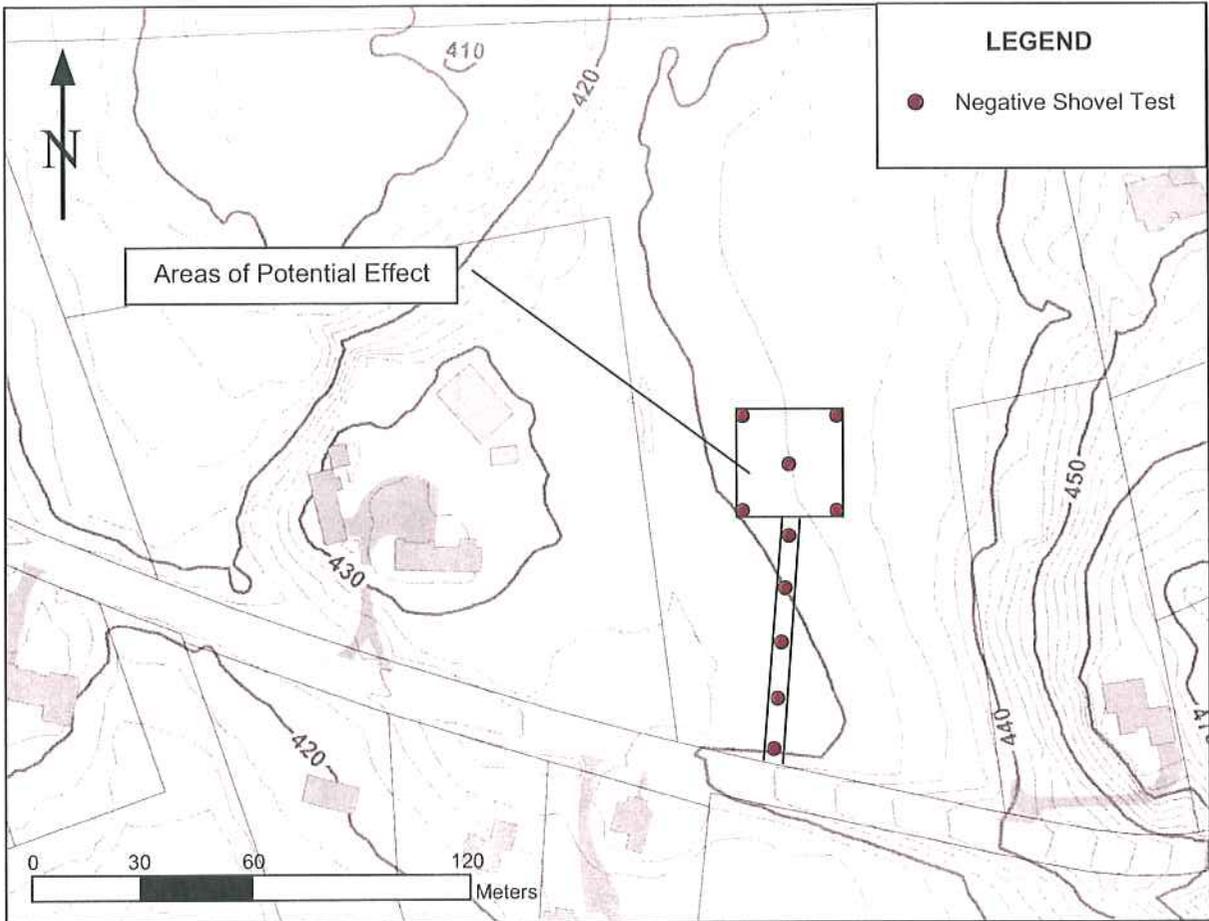


Figure 2. Plan view of the Areas of Potential Effect depicting proposed construction items and shovel test locations.



Figure 3. Overview photo of the proposed lease area, facing northwest.



Figure 4. Overview photo of area of proposed lease area and access road, facing southwest.



Figure 5. Overview photo of area of proposed lease area and access road, facing southeast.



Figure 6. Overview photo of proposed lease area, facing northeast.

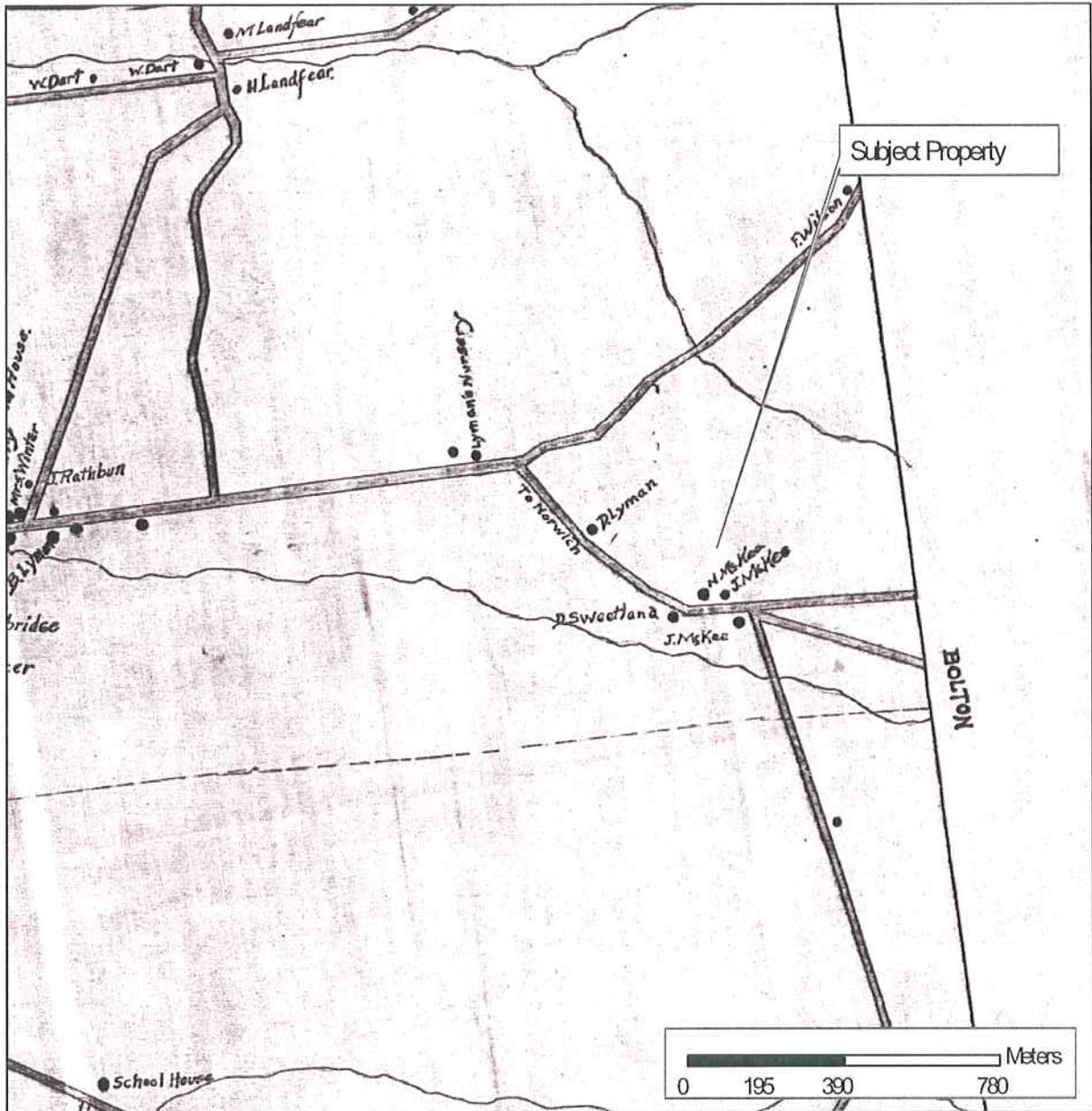


Figure 7. Excerpt from an 1849 historic map depicting the location of the Area of Potential Effect.



Figure 8. Excerpt from an 1869 historic map depicting the location of the Area of Potential Effect.

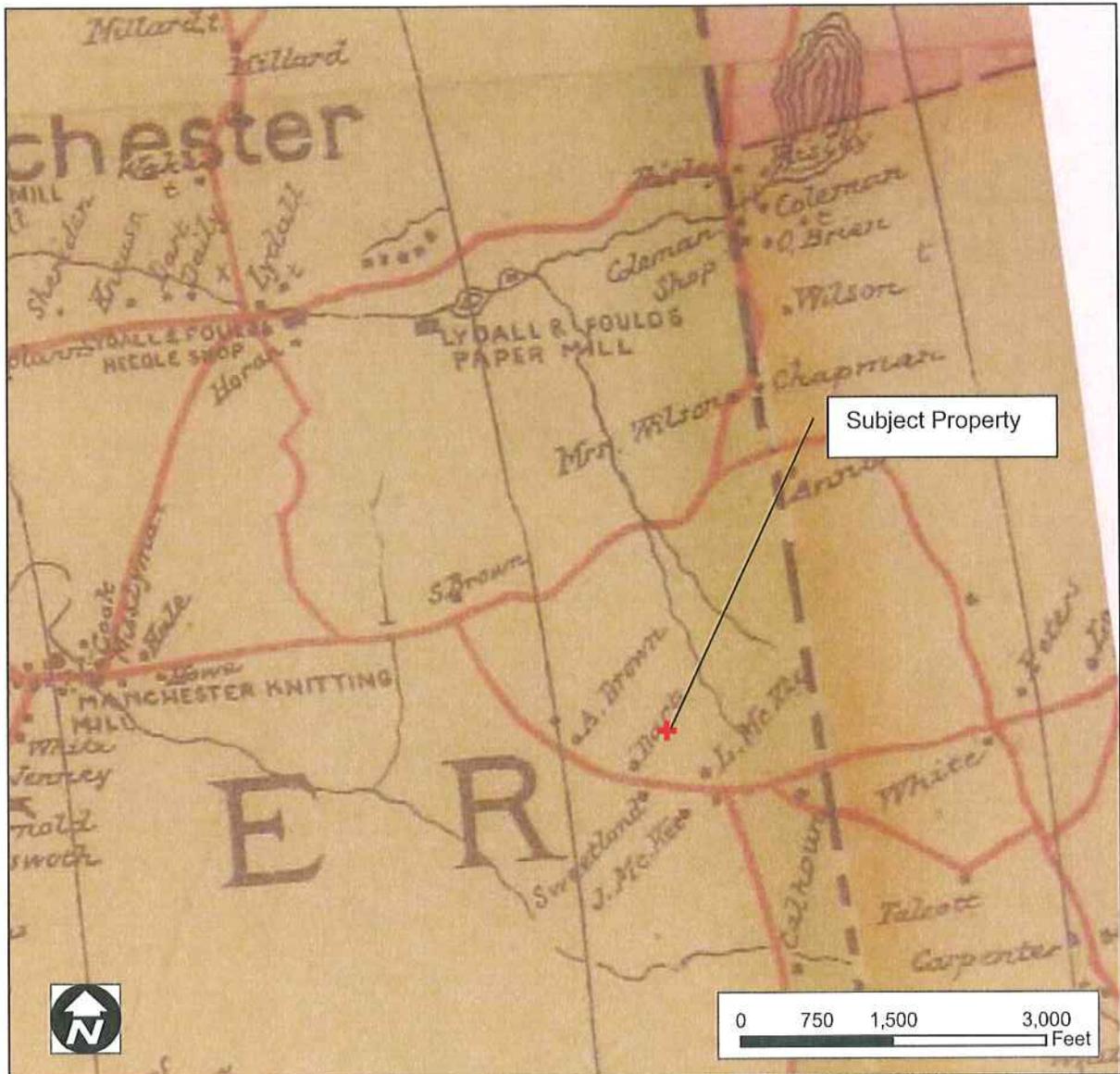


Figure 9. Excerpt from an 1884 historic map depicting the location of the Area of Potential Effect.



Figure 10. Excerpt from a 1934 aerial photograph depicting the location of the Area of Potential Effect.

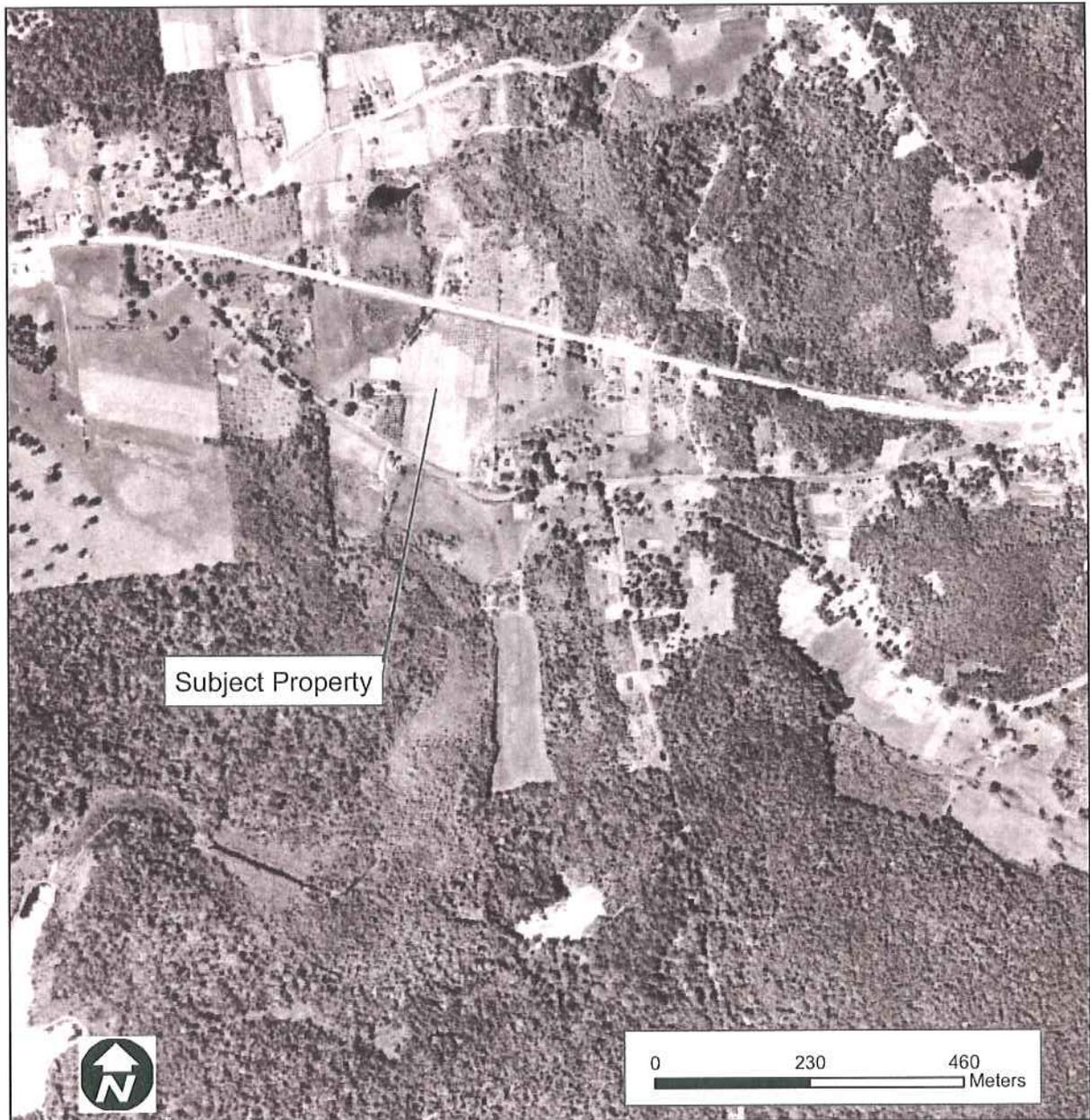


Figure 11. Excerpt from a 1952 aerial photograph depicting the Area of Potential Effect.

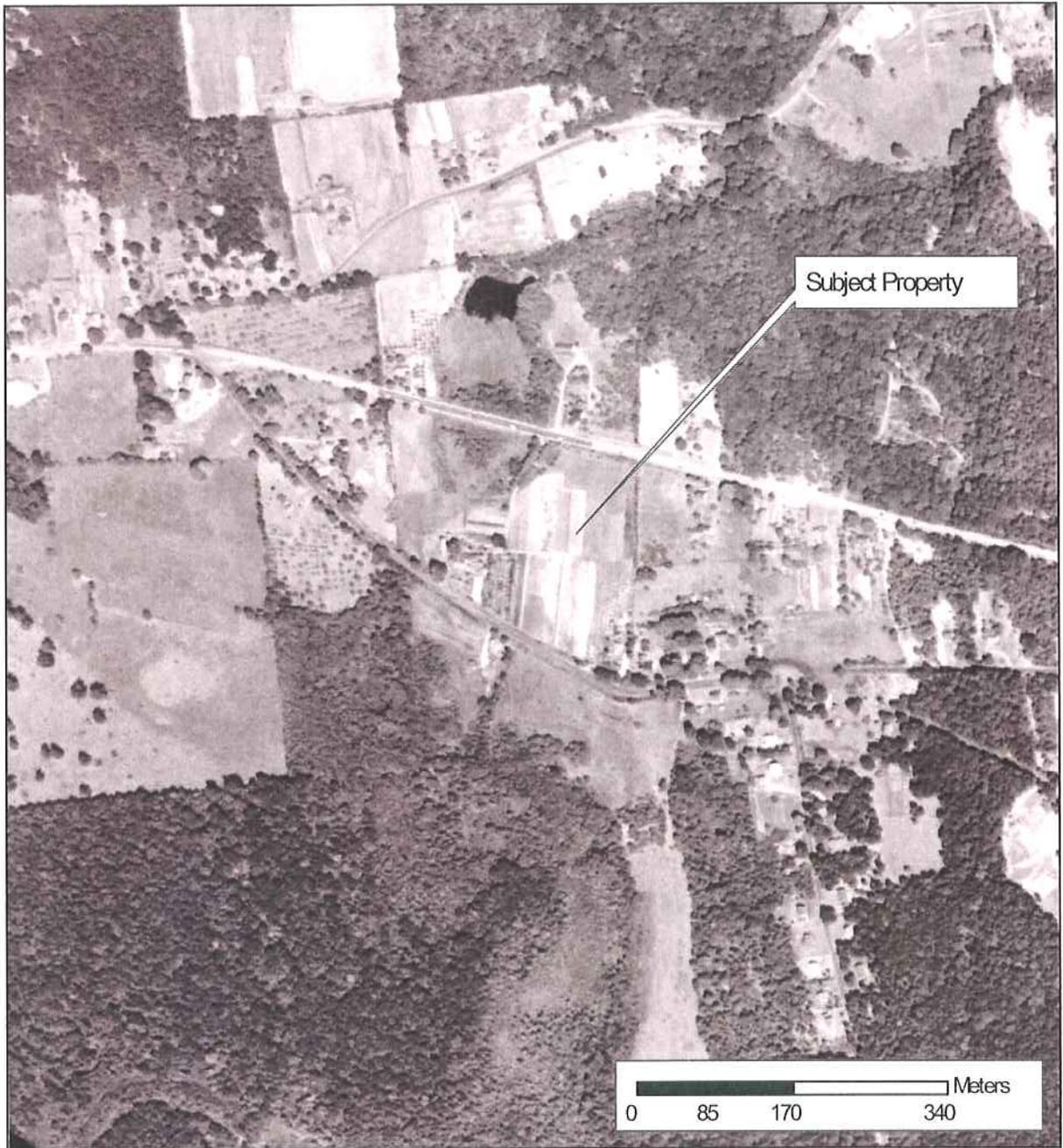


Figure 12. Excerpt from a 1957 aerial photograph depicting the location of the Area of Potential Effect.



Figure 13. Excerpt from a 1970 aerial photograph depicting the location of the Area of Potential Effect.

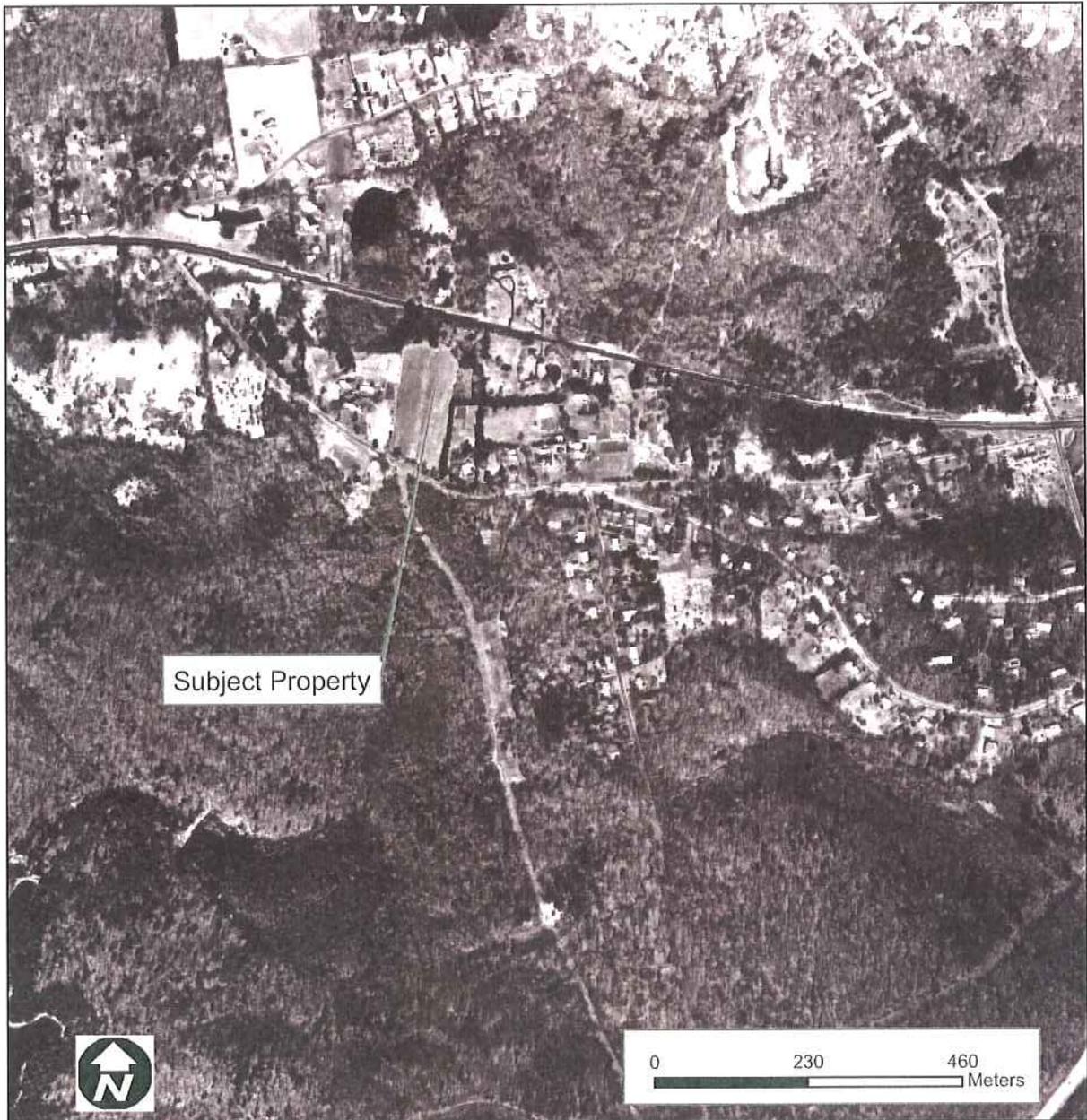


Figure 14. Excerpt from a 1986 aerial photograph depicting the location of the Area of Potential Effect.

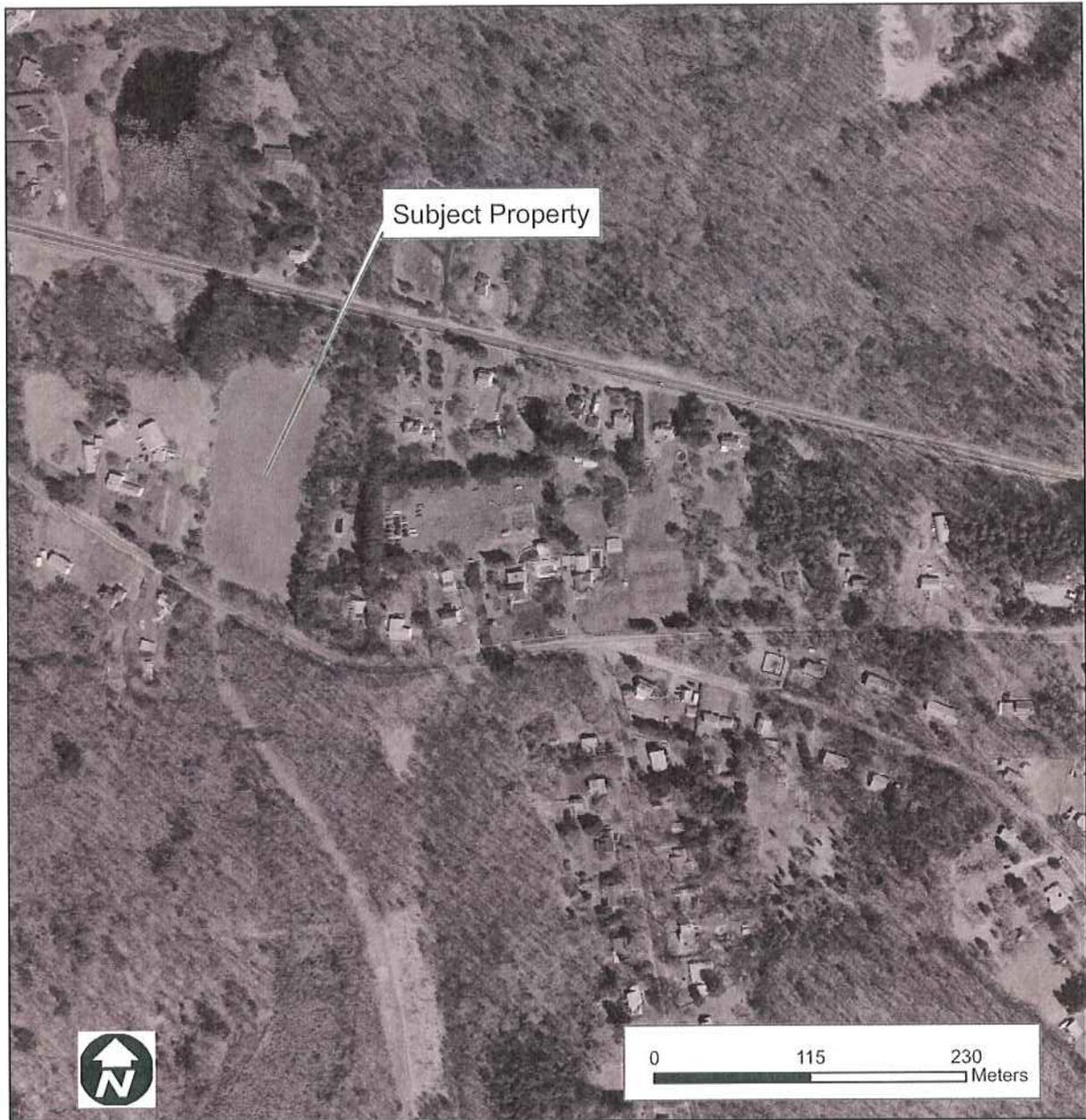


Figure 15. Excerpt from a 2004 aerial photograph depicting the location of the Area of Potential Effect.

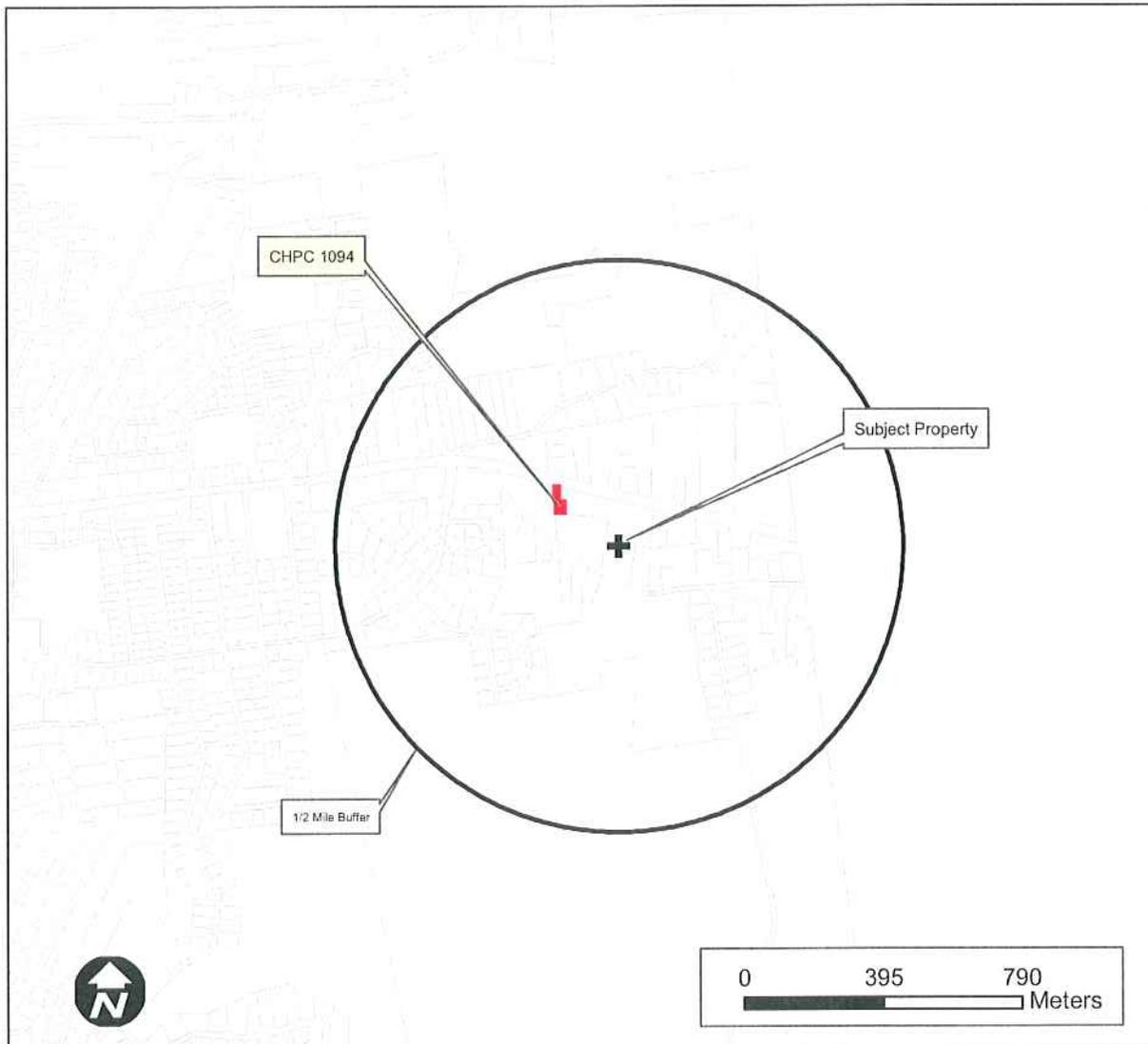


Figure 16. Map of all the previously completed cultural resources investigations within one half mile of the proposed project parcel.

NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

**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.

Historic Properties identified within the APE and the effect of the project on each property are outlined as follows.

<u>Historic Property Name</u>	<u>Effect Determination</u>	<u>Reason for the Effect Determination</u>
Rochambeau March Route (1782-1783)	No Adverse Effect	Tower will be only partially visible from only portions of this historic site (March Route) due to the presence of dense foliage, which exists throughout the area. The tower will likely only be partially visible from portions of the March Route immediately south (~500 feet) and northwest (~1/4 mile) of the tower.

- b. Provide copies of any correspondence and summaries of any oral communications with the SHPO/THPO.  
  
None performed to date.
- 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.

No adverse effects are expected as a result of the proposed installation.

**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 proposed tower.
- b. Photographs of all listed and eligible properties within the Areas of Potential Effects.
- 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.
- d. Aerial photos of the APE for visual effects, if available.

Please see the attached Photographs, which were taken by EBI Consulting staff on May 1, 2006, unless otherwise noted. A photograph location map is included in Attachment 12, Maps.

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Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

- 1. Facing southeast toward the proposed tower location.



- 2. Facing south from New Bolton Road along the proposed tower access road.



NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

3. Facing north toward New Bolton Road along the proposed tower access road.



4. Facing east toward the approximate location of the proposed tower.



NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

5. Facing south from the proposed tower location.



6. Facing southwest from the proposed tower location.



NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

7. Facing west from the proposed tower location.



Wetlands

8. Facing east along New Bolton Road from the proposed tower access road ingress.



NT SUBMISSION PACKET – FCC FORM 620

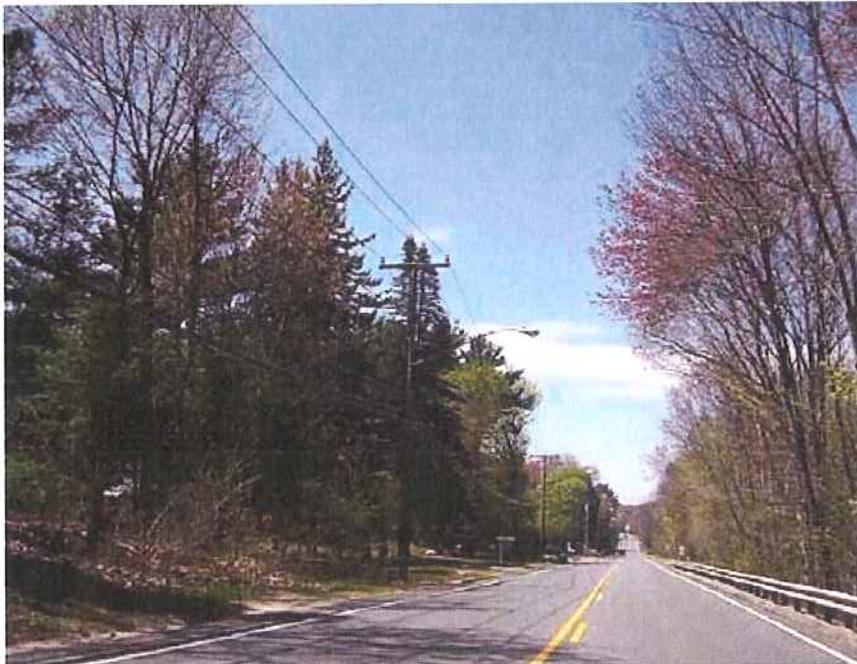
Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

9. Facing west along New Bolton Road from the proposed tower access road ingress.



10. Facing west along New Bolton Road toward the proposed tower location (not visible) from ~1/2-mile.



NT SUBMISSION PACKET – FCC FORM 620

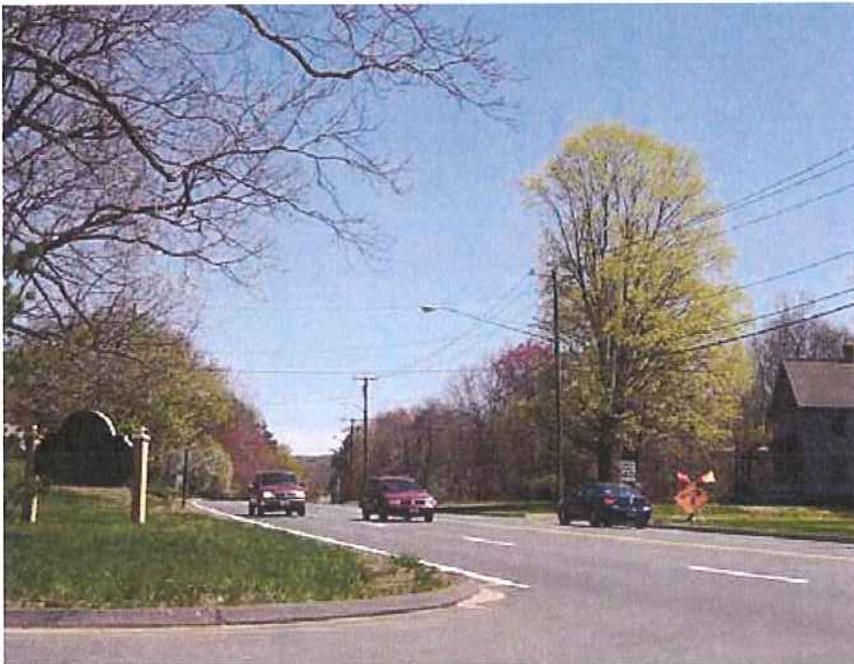
Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

11. Facing west along New Bolton Road toward the proposed tower location from  $\sim\frac{1}{4}$  mile.



12. Facing east along New Bolton Road toward the proposed tower location (not visible) from  $\sim\frac{1}{2}$ -mile.



NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039

Estimated Time Per Response:  
.5 to 10 hours

13. Facing east along New Bolton Road toward the proposed tower location from ~1/4 mile.



Approximate location  
of proposed tower.

14. Facing north toward the proposed Project Site from Middle Turnpike East.



## NT SUBMISSION PACKET – FCC FORM 620

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3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

### 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.

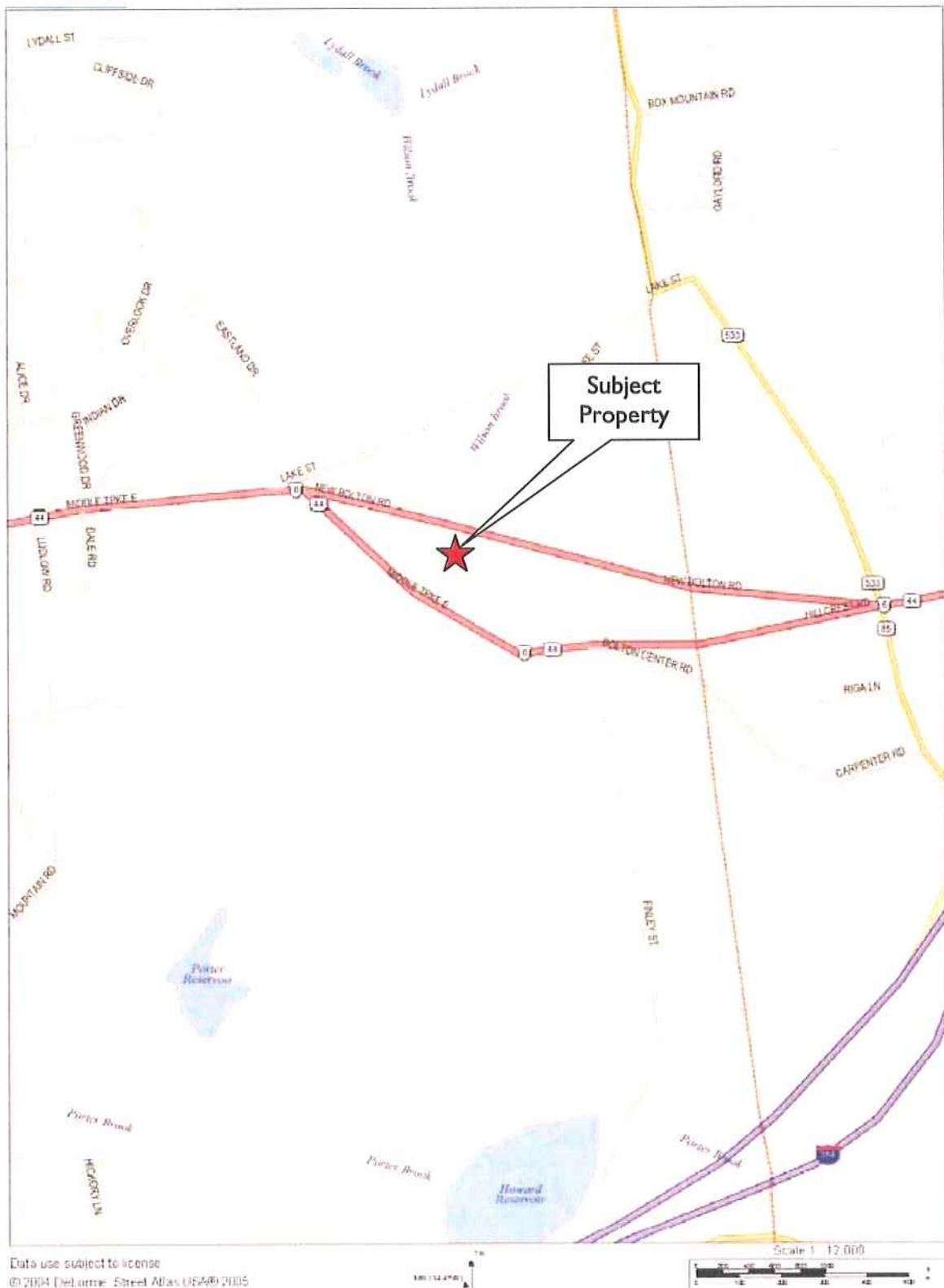
Attached maps include a Street Map and Topographic Map showing the location of the proposed Project Site (Figures 1 and 2). Also attached are a Photo-location Map (Figure 3), a Site Sketch (Figure 4), a Historic Resources/Viewshed Map, and detailed Site Plans/Lease Exhibits provided by the project proponent.

The APE for Direct Effects is identified on the attached Site Plans.

The APE for Visual Effects is identified on the attached Photo-location Map.

The location of the proposed collocation site and any related excavations are shown on the Site Plans/Lease Exhibits.

Historic Properties identified in Attachments 8 and 9 are identified on the Historic Resources/Viewshed Map.



CT-999-0074/Manchester I  
1027 Middle Turnpike East  
Manchester, CT 06040



Figure I: Location Map

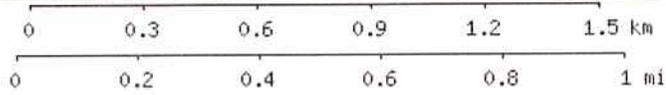
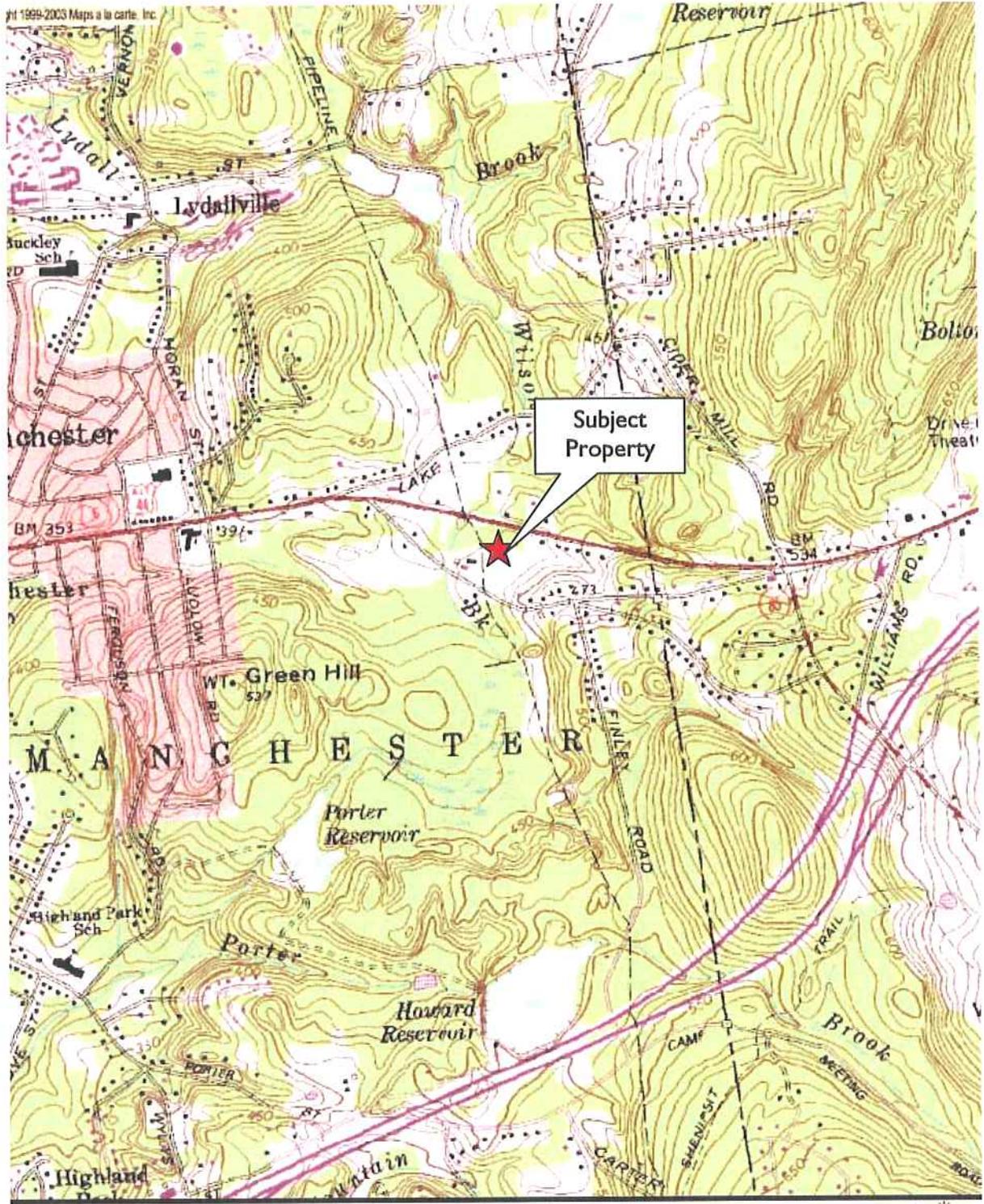
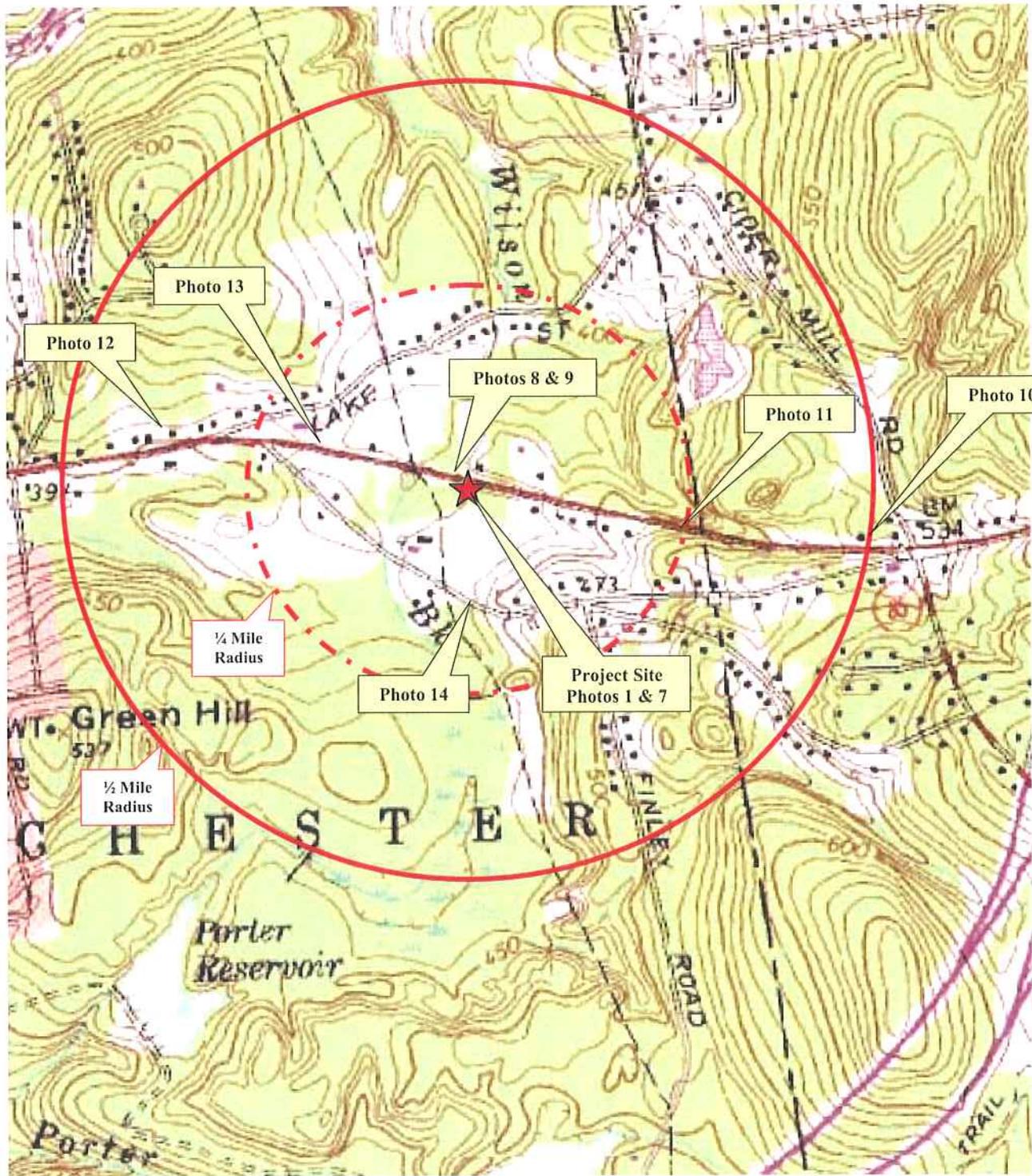


Figure 2: Locus Map

A portion of the Rockville, CT 1984  
 USGS 7.5x15 Minute Quadrangle Scale 1:24,000

**CT-999-0074/Manchester I**  
**1027 Middle Turnpike East**  
**Manchester, CT 06040**





CT-999-0074/Manchester I  
1027 Middle Turnpike East  
Manchester, CT 06040

Figure 3: Photo-location Map

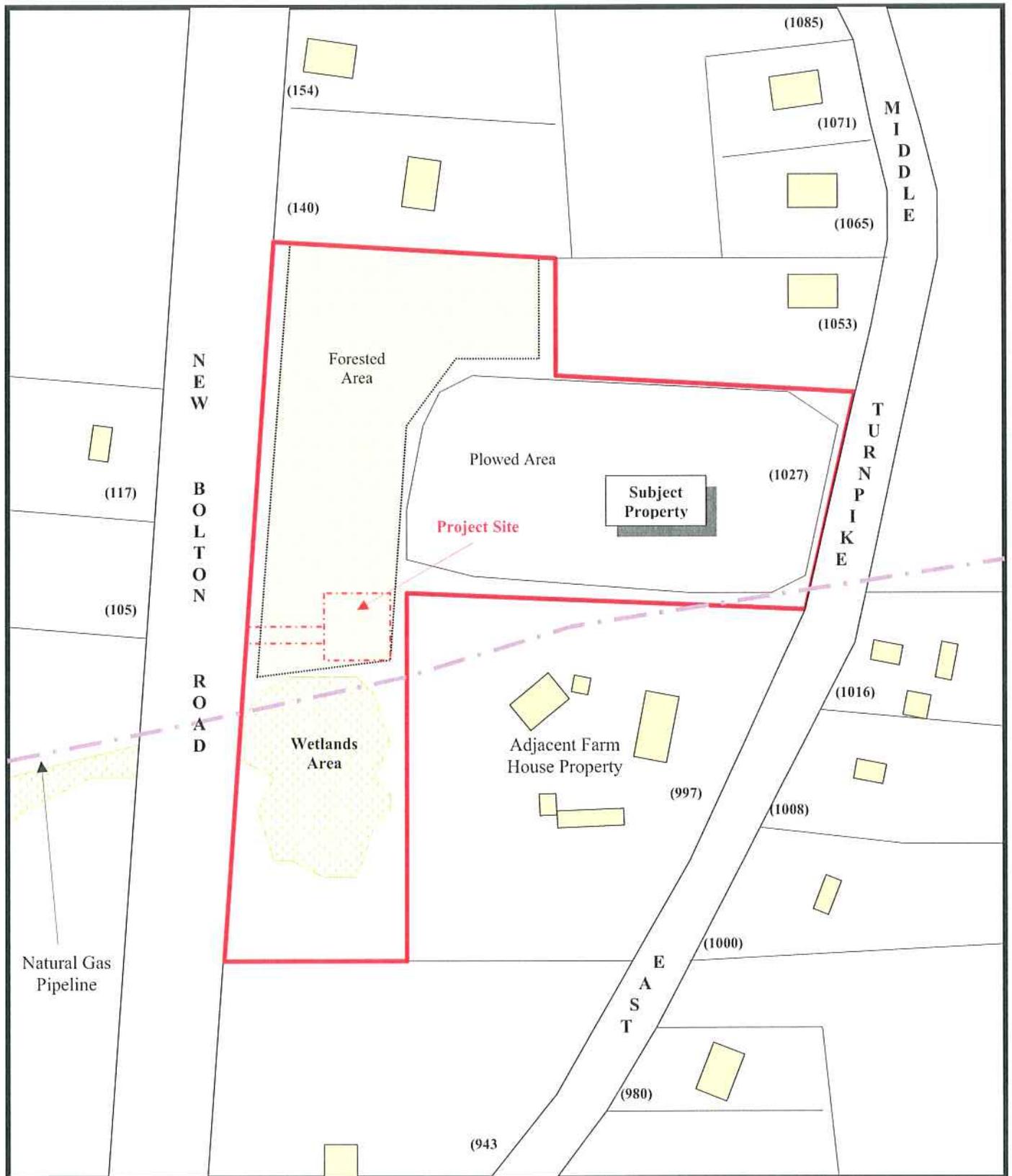
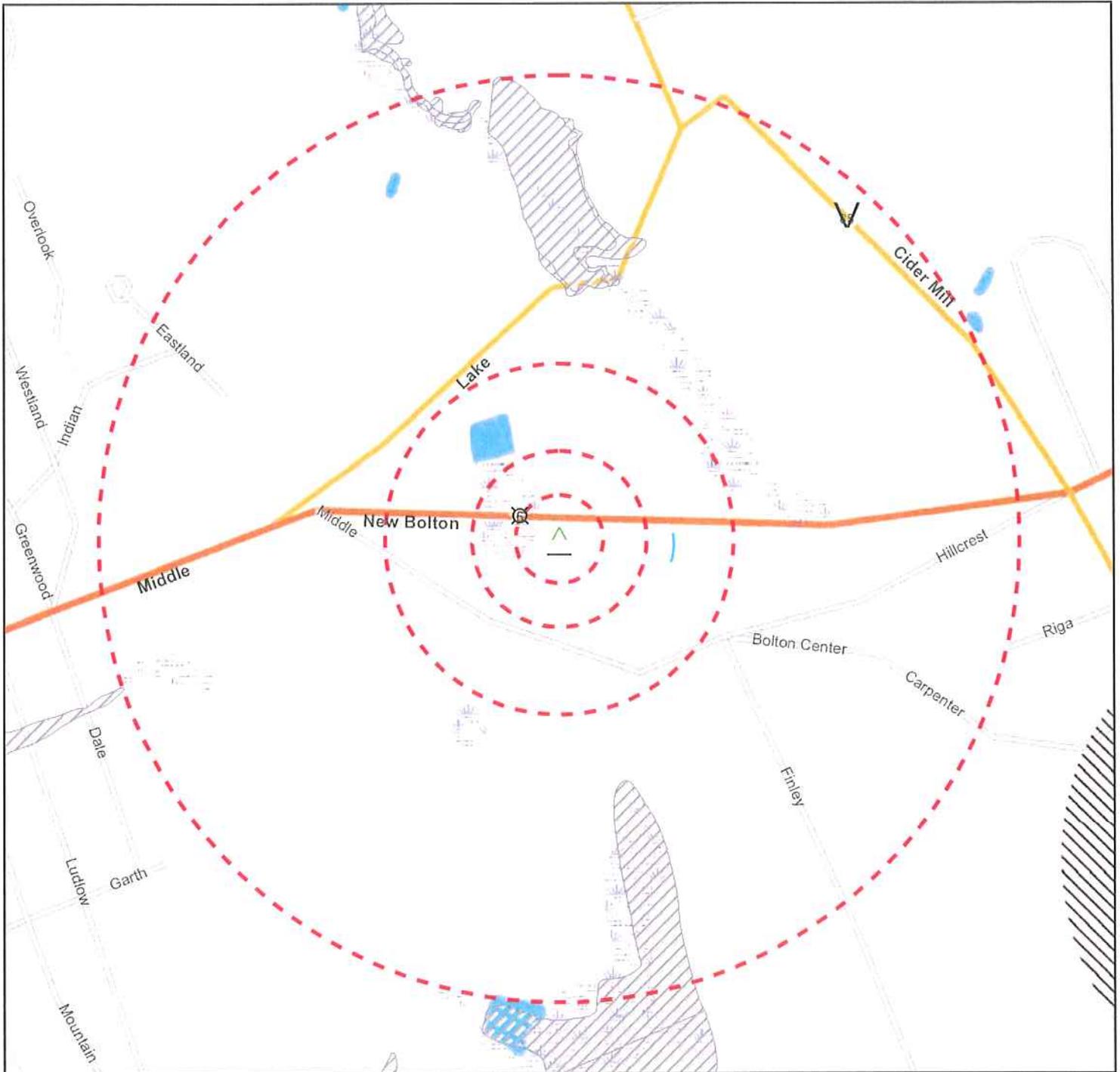


Figure 3: Site Plan

CT-999-0074/Manchester I  
1027 Middle Turnpike East  
Manchester, CT 06040





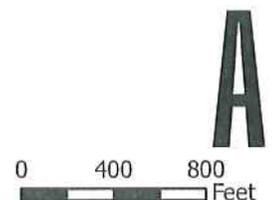
 Project Site  Site buffer at 250', 500', 1,000' and 1/2 mile

See associated Land Resources Legend page for additional map symbology definitions.

Source: Selected data from FEMA, NWI, ESRI and EBI.

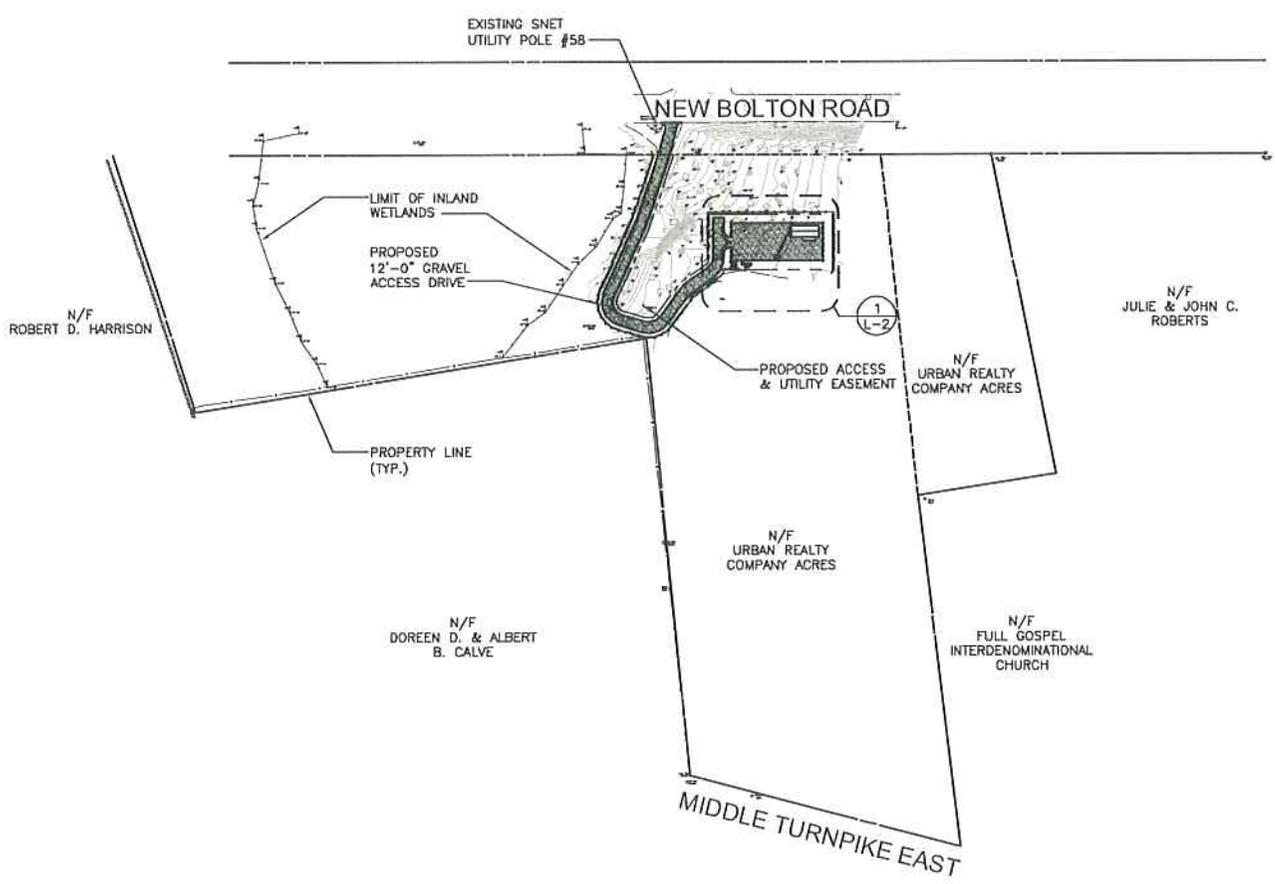
**Land Based and Historic Resources**

**MANCHESTER 1/CT-999-0074  
1027 MIDDLE TURNPIKE EAST  
MANCHESTER, CT 06040**





PROPOSED UTILITIES TO BE  
 CONFIRMED AFTER MEETING  
 WITH UTILITY COMPANY.



1 SITE PLAN  
 L-1 SCALE: 1"=200'-0"



SITE ID NO:  
 35915454  
 Designed by:  
 Drawn by: WRB  
 Checked by:  
 Approved by:

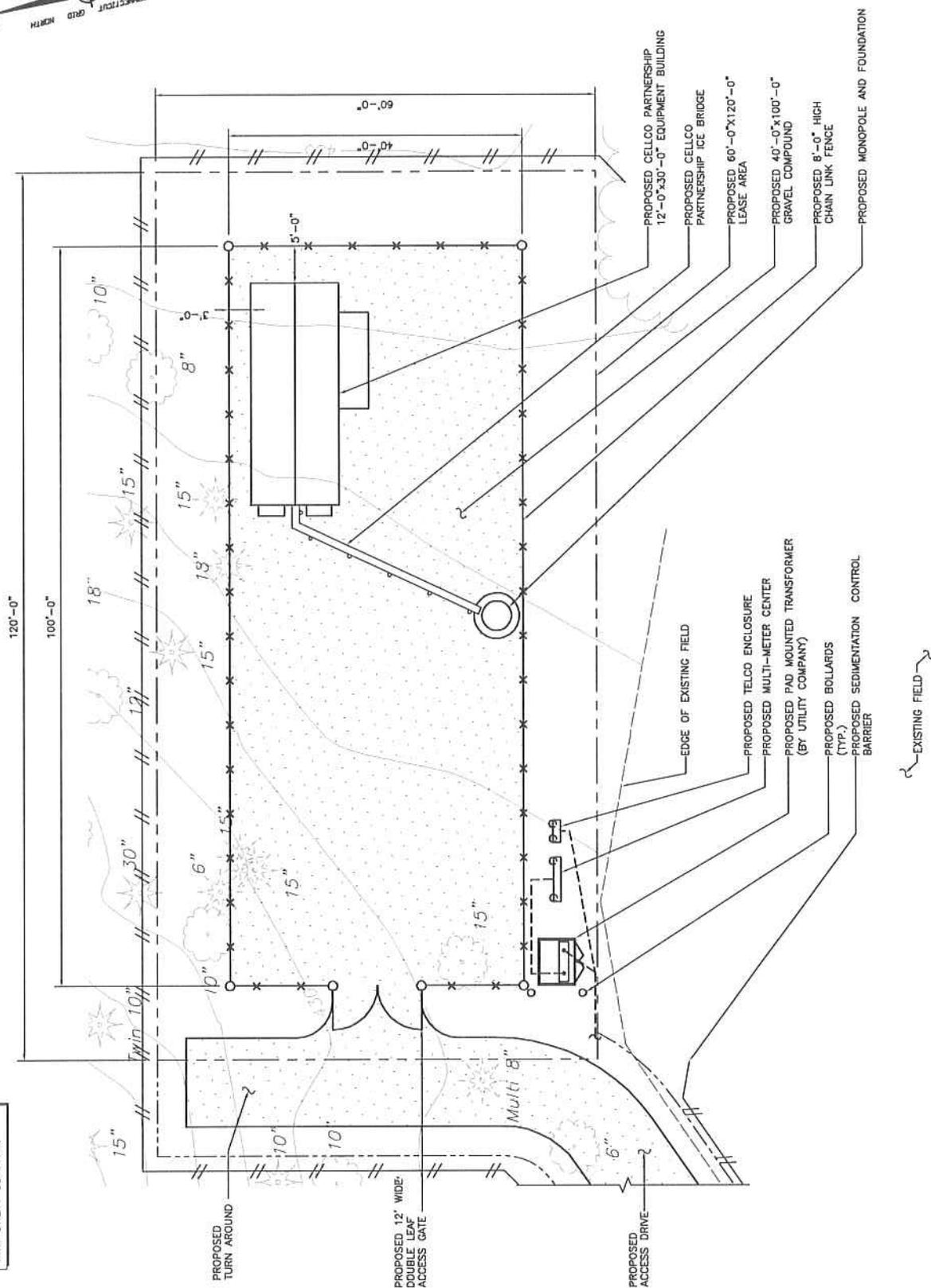
**URS CORPORATION AES**  
 500 ENTERPRISE DRIVE  
 ROCKY HILL, CONNECTICUT  
 1-(860)-529-8852

**Optasite, Inc.**  
 ONE RESEARCH DRIVE, SUITE 200C  
 WESTBOROUGH, MA 01581  
 URBAN REALTY  
 SITE ADDRESS: 1027 MIDDLE TURNPIKE EAST  
 MANCHESTER, CONNECTICUT 06040

REV.	DATE:	DESCRIPTION

Scale: AS NOTED Date: 03-24-06  
 Job No. OPT014 File No. L-1

Dwg. No.  
**L-1**  
 Dwg. 1 of 3



1 COMPOUND PLAN  
SCALE: 1"=20'-0"

SITE ID NO:  
36915454  
Designed by:  
Drawn by: WRB  
Checked by:  
Approved by:

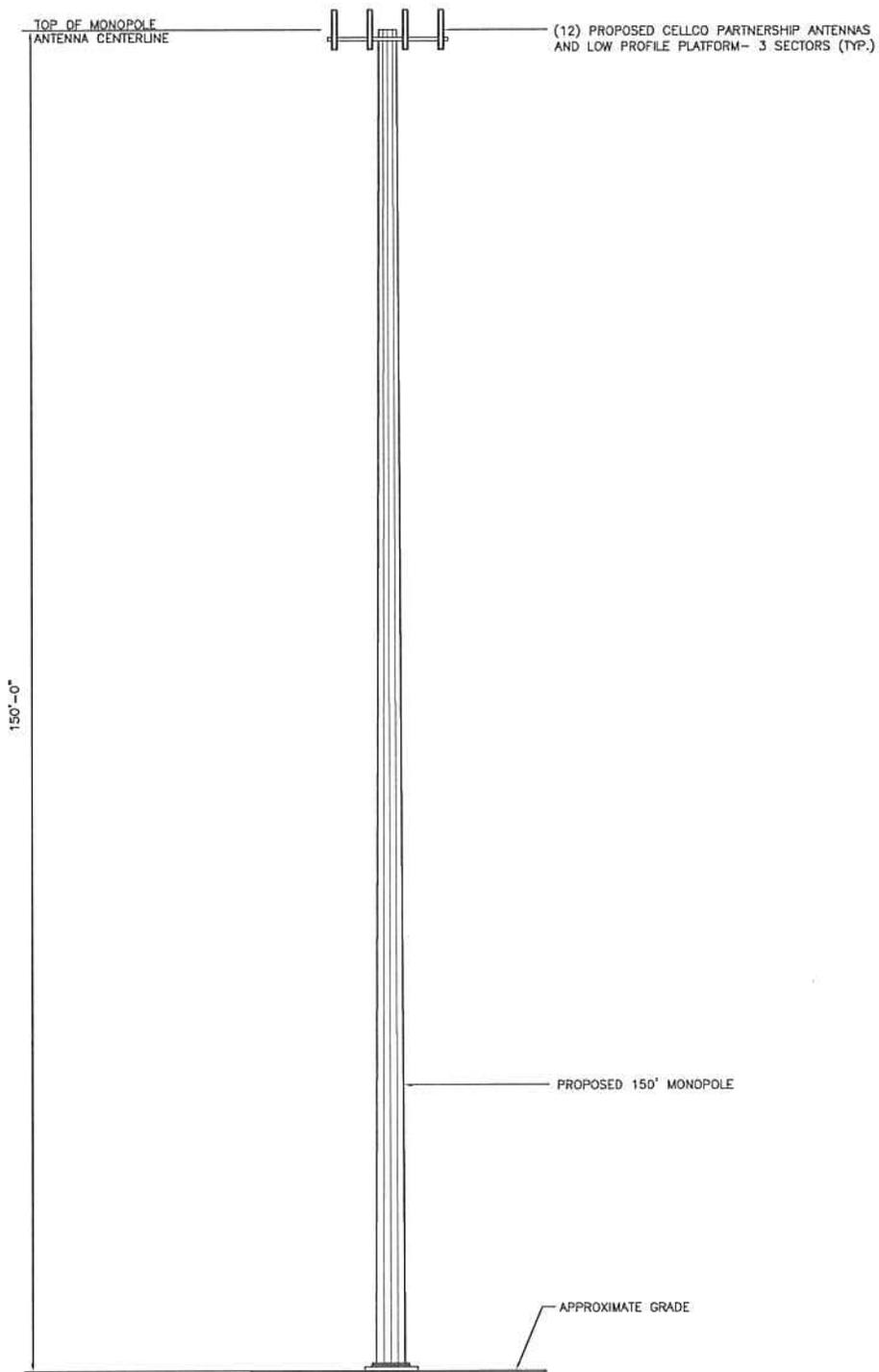
**URS CORPORATION AES**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
1-(860)-529-8882

**Optasite, Inc.**  
ONE RESEARCH DRIVE, SUITE 200C  
WESTBOROUGH, MA 01581  
**URBAN REALTY**  
SITE ADDRESS: 1027 MIDDLE TURNPIKE EAST  
MANCHESTER, CONNECTICUT 06040

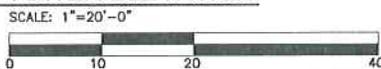
REV.	DATE:	DESCRIPTION

Scale: AS NOTED Date: 03-24-06  
Job No. OPT014 File No. L-2

Dwg. No.  
**L-2**  
Dwg. 2 of 3



1 TOWER ELEVATION  
L-3



SITE ID NO:  
36915454  
Designed by:  
Drawn by: WRB  
Checked by:  
Approved by:

**URS CORPORATION AES**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
1-(860)-529-8882

**Optasite, Inc.**  
ONE RESEARCH DRIVE, SUITE 200C  
WESTBOROUGH, MA 01581  
**URBAN REALTY**  
SITE ADDRESS: 1027 MIDDLE TURNPIKE EAST  
MANCHESTER, CONNECTICUT 06040

REV.	DATE:	DESCRIPTION

Scale: AS NOTED      Date: 03-24-06  
Job No. OPT014      File No. L-3

Dwg. No.  
**L-3**  
Dwg. 3 of 3

## NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

**Attribution and Bibliographic Standards.** All reports included in the Submission Packet should be footnoted and contain a bibliography of the sources consulted.

- a. Footnotes may be in a form generally accepted in the preparer's profession so long as they identify the author, title, publisher, date of publication, and pages referenced for published materials. For archival materials/documents/letters, the citation should include author, date, title or description and the name of the archive or other agency holding the document.
- b. A bibliography should be appended to each report listing the sources of information consulted in the preparation of the report. The bibliography may be in a form generally accepted in the preparer's profession.

*References are appended.*

### FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The FCC is authorized under the Communications Act of 1934, as amended, to collect the personal information we request in this form. We will use the information provided in the application to determine whether approving this application is in the public interest. If we believe there may be a violation or potential violation of a FCC statute, regulation, rule or order, your application may be referred to the Federal, state or local agency responsible for investigating, prosecuting, enforcing or implementing the statute, rule, regulation or order. In certain cases, the information in your application may be disclosed to the Department of Justice or a court or adjudicative body when (a) the FCC; (b) any employee of the FCC; or (c) the United States Government is a party to a proceeding before the body or has an interest in the proceeding. In addition, all information provided in this form will be available for public inspection.

If you owe a past due debt to the federal government, any information you provide may also be disclosed to the Department of Treasury Financial Management Service, other federal agencies and/or your employer to offset your salary, IRS tax refund or other payments to collect that debt. The FCC may also provide this information to these agencies through the matching of computer records when authorized.

If you do not provide the information requested on this form, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

We have estimated that each response to this collection of information will take an average of .50 to 10 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, and actually complete and review the form or response. If you have any comments on this estimate, or on how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PER, Paperwork Reduction Project (3060-1039), Washington, DC 20554. We will also accept your comments via the Internet if you send them to [Judith-B.Herman@fcc.gov](mailto:Judith-B.Herman@fcc.gov). Please **DO NOT SEND COMPLETED APPLICATIONS TO THIS ADDRESS**. Remember - you are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number of if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-1039.

**THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1995, P.L. 104-13, OCTOBER 1, 1995, 44 U.S.C. 3507.**

NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

References:

USGS Topographic Map, Rockville, Connecticut, 1984.

National Park Service, National Register of Historic Places, National Information Systems website (<http://www.cr.nps.gov/nr/research/>), reviewed April 19, 2006.

Connecticut Historical Commission: file review, conducted by Heritage Consultants, April 18, 2006.

URS Corporation AES: Lease Exhibits (Three Sheets), RE: "Urban Realty" 1027 Middle Turnpike East, Manchester, CT 06040, prepared for *Optasite, Inc.*, dated March 24, 2006.

**APPENDIX E**  
**TRIBAL CORRESPONDENCE**



11-30-06

Mr. Christopher W. Baird,  
Program Manager  
EBI Consulting  
Four A Street  
Burlington, MA 01803

Re: PHASE I CULTURAL RESOURCES RECONNAISSANCE SURVEY OF A  
PROPOSED CELLULAR COMMUNICATIONS TOWER LOCATED AT 1027  
MIDDLE TURNPIKE EAST, MANCHESTER, CONNECTICUT  
TCNS # 15601

Dear Mr. Baird,

I have reviewed the Phase I Cultural Resources Reconnaissance Survey entitled "PHASE I CULTURAL RESOURCES RECONNAISSANCE SURVEY OF A PROPOSED CELLULAR COMMUNICATIONS TOWER LOCATED AT 1027 MIDDLE TURNPIKE EAST, MANCHESTER, CONNECTICUT" submitted by Heritage Consultants, LLC.

The research design and testing strategy meets acceptable professional standards, and agree with the recommendations and conclusions.

Please keep me informed of any further developments with respect to this project.

Sincerely,

Kathleen Knowles,  
Tribal Historic Preservation Officer  
Mashantucket Pequot Tribe

MASHANTUCKET PEQUOT MUSEUM  
& RESEARCH CENTER

110 Pequot Trail, PO Box 3180

Mashantucket, CT 06338

Phone: 860 396 6800

Fax: 860 396 6850

[www.pequotmuseum.org](http://www.pequotmuseum.org)

# NITHPO

## Narragansett Indian Tribal Historic Preservation Office

Narragansett Indian Longhouse  
P. O. Box 700  
Wyoming, Rhode Island 02898



November 9, 2006

Christopher Baird  
EBI Consulting  
Four A Street  
Burlington, MA  
01803

RE: TCNS #15601, EBI # 61061616

Dear Mr. Baird:

The Narragansett Indian Tribal Historic Preservation Office (NITHPO) has examined the proposed noted cell tower area located at 1027 Middle Turnpike East, CT.

NITHPO's site examination revealed no indicators of the presence of past tribal cultural resources. NITHPO, therefore, anticipates no inadvertent encounters by you or your client with significant intact cultural resources (burials, village sites or ceremonial sites). In the unlikely event that tribal artifacts or human remains are encountered during construction excavation, you are requested to immediately halt excavation and contact NITHPO and the appropriate local officials in accordance with relevant ~~CT~~ General Law.

This letter completes NITHPO's Section 106 assessment of this site. Thank you for your compliance with F.C.C. permitting and consultation requirements as specified under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR PART 800).

Sincerely,

Sequahna Mars  
Project Manager  
NITHPO

C: Kimberly Threlfall

## Chris Baird

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Friday, May 12, 2006 3:02 AM  
**To:** Chris Baird  
**Cc:** kim.pristello@fcc.gov; diane.dupert@fcc.gov  
**Subject:** NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #1105324

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. THPO - Kathleen Knowles - Mashantucket Pequot Tribe - Mashantucket, CT - electronic mail  
Exclusions: For every tower construction this Tribe requires a site location map, site plans for every project that will result in ground disturbance, and a detailed description of the proposed site. If the proposed tower construction is on an already existing building, the Tribe would like to be informed of that as well.
2. Deputy THPO - Doug Harris - Narragansett Indian Tribe - Wyoming, RI - electronic mail and regular mail

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and

therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

3. SHPO - John Shannahan - Connecticut Historical Commission - Hartford, CT - electronic mail
4. SHPO - Cara Metz - Massachusetts Historical Commission - Boston, MA - electronic mail
5. Deputy SHPO - Brona Simon - Massachusetts Historical Commission - Boston, MA - electronic mail
6. SHPO - Bernadette Castro - Parks, Recreation & Historic Preservation - Albany, NY - regular mail
7. Director - Ruth Pierpont - Bureau of Field Services, NY State Parks &\* Hist. Pres. - Waterford, NY - electronic mail
8. SHPO - Frederick Williamson - Rhode Island Historic Preservation & Heritage Comm - Providence, RI - regular mail
9. Deputy SHPO - Edward Sanderson - Rhode Island Historic Preservation & Heritage Comm - Providence, RI - electronic mail

"Exclusions" above set forth language provided by the Tribe, NHO, or SHPO. These exclusions may indicate types of tower notifications that the Tribe, NHO, or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribes, NHOs, and SHPOs that have an expressed interest in the geographic area of a proposal, as well as Tribes and NHOs that have not limited their geographic areas of interest. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribe, NHO, or SHPO. Exclusions may also set forth policies or procedures of a particular Tribe, NHO, or SHPO (for example, types of

information that a Tribe routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 05/09/2006  
Notification ID: 15601  
Tower Owner Individual or Entity Name: Optasite  
Consultant Name: Christopher W Baird

Street Address: EBI Consulting Four A Street  
City: Burlington  
State: MASSACHUSETTS  
Zip Code: 01803  
Phone: 617-715-1846  
Email: cbaird@ebiconsulting.com  
Structure Type: POLE - Any type of Pole  
Latitude: 41 deg 47 min 6.0 sec N  
Longitude: 72 deg 28 min 37.0 sec W  
Location Description: 1027 Middle Turnpike East  
City: Manchester  
State: CONNECTICUT  
County: HARTFORD  
Ground Elevation: 129.5 meters  
Support Structure: 45.7 meters above ground level  
Overall Structure: 45.7 meters above ground level  
Overall Height AMSL: 575.0 meters above mean sea level

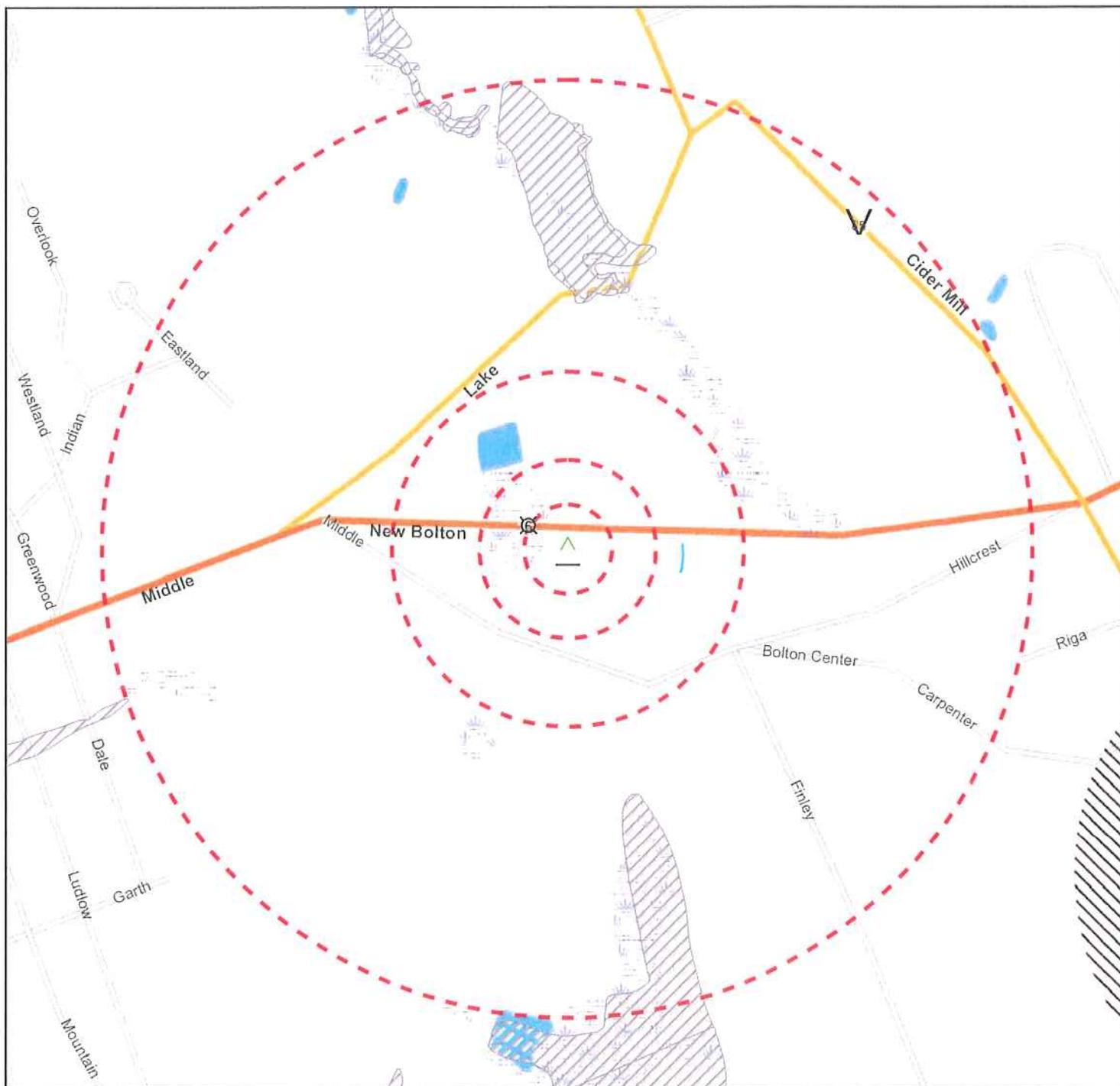
If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission

**APPENDIX F**  
**LAND RESOURCES MAP**



 Project Site  Site buffer at 250', 500', 1,000' and 1/2 mile

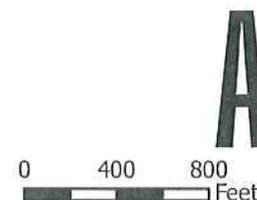
See associated Land Resources Legend page for additional map symbology definitions.

Source: Selected data from FEMA, NWI, ESRI and EBI.

**Land Based and Historic Resources**

**MANCHESTER 1/CT-999-0074**  
**1027 MIDDLE TURNPIKE EAST**  
**MANCHESTER, CT 06040**

PN: 61061616



## National Datalayers Legend\*

-  Project Site
-  Site buffer at 250', 500', 1,000' and 1/2 mile

-  National Register Historic Site

-  National Register Historic District

Source: NPS National Register of Historic Places, updated 15 March 2006

-  National Park Service Trail

Source: U. S. National Parks Service. Various dates. NR/GIS Web Site, U.S. Dept. of the Interior, NPS, Wash., D.C. <http://science.nature.nps.gov/nrdata/index.cfm>.

-  National Scenic Parkway

-  National Wild and Scenic River

-  Federally Owned Land

Source: National Atlas of the U.S., Reston, VA, 12/05, Federal Land Features of the U.S. -Parkways and Scenic Rivers -Federal Lands of the United States

-  FWS Critical Habitat

Source: U.S. Fish and Wildlife Service. Various dates. FWS Critical Habitat for Threatened & Endangered Species website. U.S. Dept. of the Interior, FWS, Wash, D.C. <http://crithab.fws.gov/>.

-  Stream or Creek

-  Freshwater Forested/Shrub Wetland

-  Freshwater Emergent Wetland

-  Estuarine & Marine Wetland

-  Unconsolidated Shore

-  Freshwater Lake, Pond, or River

-  Estuarine & Marine Deepwater

-  Open Water

Source: U.S. Fish and Wildlife Service. Various dates. National Wetlands Inventory website. U.S. Dept. of the Interior, FWS, Wash, D.C. <http://www.fws.gov/nwil>.

### Q3 Flood Zone

-  A (-E, -H, -O) - 100-year inundation area.

-  D - Area of possible flood hazard.

-  VE - 100-year inundation area, with wave action.

-  X500 - 500-year inundation area.

Source: FEMA

\* Includes data obtained from federal agencies developed to be consistent throughout the US.

## Connecticut - State Specific Datalayers Legend

-  Natural Diversity Database Area

Sources: CT MAGIC Website  
Data Date: 2001  
<http://magic.lib.uconn.edu/>

## Land Based and Historic Resources Legend

**APPENDIX G**  
**UNITED STATES FISH AND WILDLIFE CORRESPONDENCE**



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087

July 6, 2006

Reference: See attached sheet for a list of projects covered by this letter

Maureen Taylor, Jessica Wellum,  
Christopher Baird, Linda Mackey,  
Brian Szekely, Brian Lever,  
Jennifer Vito, Ryan Hale, Joel Dukes  
EBI Consulting  
Four A Street  
Burlington, MA 01803

Ladies and Gentlemen:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

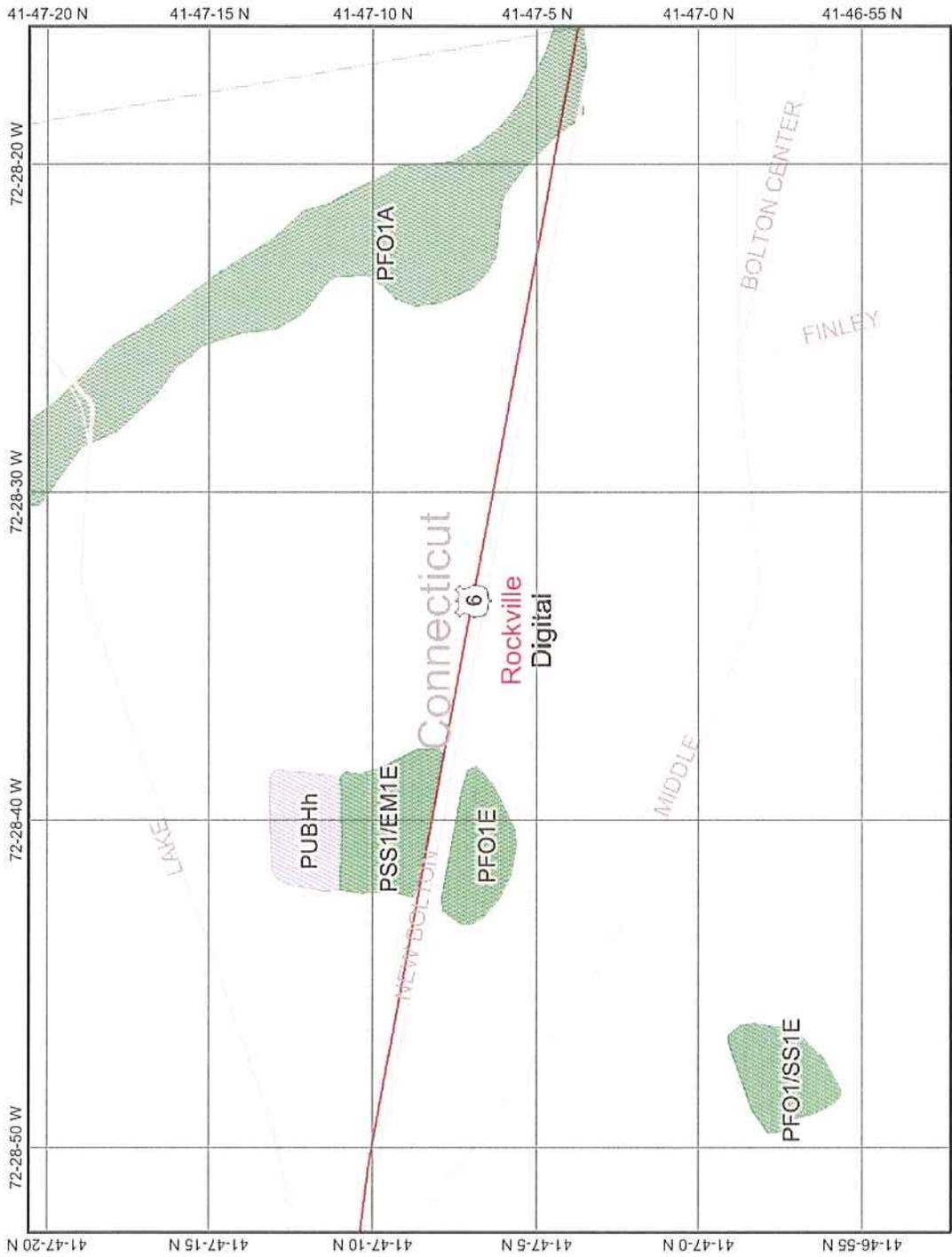
Michael J. Amaral  
Endangered Species Specialist  
New England Field Office

Attachment

<u>Project</u>	<u>Location</u>	<u>Project #</u>
Antenna co-location	Waterbury, CT	61061920
Antenna co-location	Greenwich, CT	61061958
Tower	Stoneham, MA	61062466
Tower	North Smithfield, RI	61060960
Tower	Lincoln, NH	61061784
Tower	Southwick, MA	61062184
Tower	Belmont, MA	61061429
Tower	Manchester, CT	61061616
Tower	Hartford, VT	61052766
Tower	Weathersfield, VT	61062274
Tower	Holyoke, MA	61062558
Tower extension	Meriden, CT	61062121
Antenna co-location	Portsmouth, RI	61062062
Tower	Portsmouth, RI	61061702
Tower	Westford, MA	61061867
Tower	Worcester, MA	61062225
Antenna co-location	Enfield, CT	61062000
Antenna co-location	Brookfield, CT	61062361
Tower	Westfield, MA	61062445
Tower	Acton, MA	61062557

**APPENDIX H**  
**NATIONAL WETLANDS INVENTORY MAP**

# Wetlands Map



## Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- Urban Areas 300K
- States 100K
- South America
- North America



Scale: 1:8,159

Map center: 41° 47' 6.4" N, 72° 28' 34.1" W

This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

**APPENDIX I**  
**FEMA FLOODPLAIN MAP**

**Flood Insights test results for :**

**Latitude: 41.783416 Longitude: -72.477166**  
*Geocoding Accuracy: Not Available*

**Flood Zone Determinations**

*[Test Description](#)*

**SFHA (Flood Zone) Within 250 feet of multiple flood zones?**

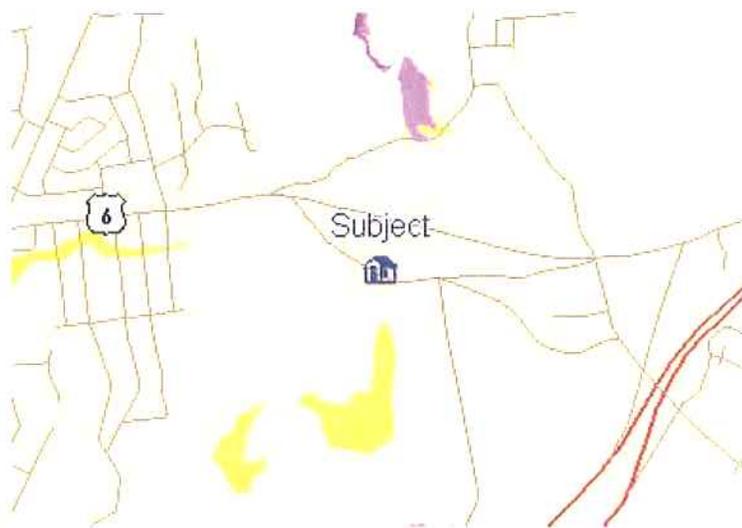
Out

No

Community	Community Name	Zone Panel	Panel Date	Cobra
090031	MANCHESTER, TOWN OF	X 0004D	May 02, 1991	OUT

FIPS Code	Census Tract
09003	5150.00

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**FloodMap Legend**

Flood Zones

- Areas inundated by 500-year flooding
- Areas outside of the 100- and 500-year floodplains
- Areas inundated by 100-year flooding
- Areas inundated by 100-year flooding with velocity hazard
- Floodway areas
- Floodway areas with velocity hazard
- Areas of undetermined but possible flood hazards
- Areas not mapped on any published FIRM

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