

**CULTURAL, STRUCTURAL &
ENVIRONMENTAL ASSESSMENTS**

THE WHEELER-HARRINGTON PROPERTY
West Concord, MA

February 2015

Prepared for the Town of Concord

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INTRODUCTION

Scope and Purpose of the Project

The Wheeler-Harrington House is considered to be the oldest residence in West Concord, having been initially constructed circa 1740. Now listed on the National Register of Historic Places, it met a number of criteria for nomination. The residence and its associated landscape is significant because of its architectural development; its association with prominent Concord residents; and, because it is a Colonial farmhouse that has been maintained in its historic agrarian setting adjacent to the Assabet River.

Preserved in the early 1970s by a grass roots effort to protect both historic and natural resources, the Wheeler-Harrington House and Harrington Park have functioned as two entities. The Concord Historical Commission and a small number of caretakers have managed and cared for the historic farmhouse. Peter and Jane Benes currently serve as resident caretakers. The home has been the site of community meetings, a destination for tour groups, and for community holiday celebrations. Harrington Park includes agricultural fields and an orchard, a steep wooded slope of majestic trees and a riverfront landscape next to the Assabet River. The Town maintains a parking area for Harrington Park and a series of trails that allow access from the upland to riverfront areas.

Since its acquisition in 1974, the Town of Concord has successfully preserved this historic property. The Deputy Town Manager, through the Town Manager's Office, has been responsible for overseeing the maintenance of the House. Funding has been provided through the Harrington House Revolving Fund Bylaw. Ongoing support for maintenance and management of the House and property has been through the assistance of the Concord Historic Commission, the Concord Natural Resources Commission, and other Town Departments. The House has been rented to a series of sympathetic caretakers, the most recent and current being Peter and Jane Benes. The Benes' have been stewards of the House and its immediate residential landscape in the deepest and richest sense. Their understanding and appreciation for the character and quality of the Wheeler-Harrington House have been great.

Harrington Park has been preserved from development to the benefit of the entire Town of Concord. The Concord Department of Planning and Land Management oversees the Park landscape with support from various other Town departments.

After 40 years of ownership, the Town has commissioned a consultant team to evaluate the existing conditions of the entire Wheeler-Harrington Property, including the House, the surrounding residential landscape and the 15.22 acres of land of the Property, and then to make recommendations for future preservation management. The Town seeks to determine how to best preserve this heritage Property for future generation. The combined reports presented here strive to define potential uses for the Wheeler-Harrington Property so that it becomes, as much as possible, a self-sustaining resource for current and future residents and visitors. The Property is a highlight of the Town's historic, cultural and natural fabric and can serve the Concord community for decades to come.

The following map of the subject property shows the full limits of the Wheeler-Harrington Property between Harrington Avenue and the Assabet River. The topographic contours show the landform of Harrington Park, including the currently active agricultural fields, the parking lot, the steep slope and riverfront area along the Assabet. The location of the Wheeler-Harrington House and its driveway are highlighted.

The parcel joins other Town-owned property to the west. Private residential properties border Harrington Park on the east. A residential neighborhood is located on the south side of Harrington Avenue.



Figure 0: Aerial Photograph of Wheeler-Harrington House and Harrington Park

Project Methodology

The development of this Report began in the fall of 2013, when the Town of Concord engaged the design team to prepare four documents for the Wheeler-Harrington House and Harrington Park. Included in this document are this Cultural Landscape Assessment, a Historic Structures Assessment, and an Environmental Assessment. These assessments were prepared concurrently. Following the completion of these three documents, a Management Plan was prepared, summarizing the management recommendations in each assessment. These management recommendations address immediate and near term items for repair and removal based on the need to protect public health and safety and the integrity of the historic structure. The recommendations address possible future town management and disposition of the Wheeler-Harrington Property.

Site visits by the consultant team were conducted in early March, early May and late September 2014 to experience the landscape in winter, spring and early autumn. (The winter of 2014 was a

very long one and snow and ice still covered the site well into March.) In addition, the pre-proposal site visit on October 31, 2013 allowed documentation of the site later in the fall season.

Historic research was primarily conducted at the Concord Free Public Library in their Special Collections, with support of on-line resources including archive articles.

In addition to meeting on site, three visits were made with Peter and Jane Benes, the long-residing caretakers of the property, previously mentioned. These were held on March 4, May 2 and September 16 with the earliest visit including a conversation with the architects, landscape architect, the Benes and Electa Tritsch, a member of the Historical Commission.

On March 6th 2014, the design team met with the Concord Historical Commission to discuss the research that the team had completed up to that point. The goal of the meeting was to determine if the Commission knew of gaps in resources that had not been uncovered and to get a sense of the vision of the Commission's members was for the Wheeler-Harrington property. Other than the extensive and constructive comments made to various preliminary drafts of the Cultural Landscape Report, no additional information was provided to the design team subsequent to the March 6th meeting.

Cultural, Structural & Environmental Assessment
February 2015

Wheeler-Harrington Property
West Concord, Massachusetts

CULTURAL LANDSCAPE REPORT

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Wheeler-Harrington House and Harrington Park
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SECTION 1 - LANDSCAPE HISTORY

1.1 The Significance of Place

The Wheeler-Harrington Property was listed on the National Register of Historic Places in July of 2013 (NR Reference number 13000534). The listing carries the following description:

The Wheeler-Harrington property meets Criterion A for its multiple roles in the [sic] Concord's social, agricultural, and economic development over the course of two centuries. The oldest known building in West Concord, the house's connection to the agrarian life of the west part of town began with its early association with the large Wheeler family, original settlers of the rural 'South Quarter'. The property exemplifies local and regional trends and patterns of development of various historical periods. [National Register 9]

Anne McCarthy Forbes, in her *Narrative Histories of Concord and West Concord*, described West Concord "as a community that epitomizes some important patterns of the times and which possesses considerable character of its own, much of which remains intact in its building and physical features." [Forbes 47] The Wheeler-Harrington property is a remnant of life and agriculture of the historic West Concord village. As such, the Wheeler-Harrington Property must be protected.



Wheeler-Harrington House from Harrington Park, circa 1975, Courtesy of Peter Benes

The core acreage of the Wheeler-Harrington Property has remained generally intact during the development and growth of West Concord since the 1740s. The property – and the four predominant families who resided there – farmed the land; raised livestock; witnessed visits by Henry David Thoreau; saw the arrival of the industrial age; experienced the introduction of the railroad system and the ensuing shift away from the agrarian economy; experienced population booms; and lived through the changes wrought by the automobile, with rural areas suddenly becoming more connected to the larger world.

The Wheeler-Harrington Property is an example of an early American vernacular landscapes. It is significant to West Concord and the Town of Concord not because of any specific event or famous person, but because it represents the evolution of a village typical of colonial New

England and its transition to the modern era. As such, Harrington Park is a valuable cultural resource to the community for educational purposes. In addition, because of its unaltered, original location; the faithful maintenance of its fields, gardens and House; and its breadth of natural resources, the larger story of Man's connection to the landscape is told by nearly three centuries of its history.

The riverfront landscape occupies nearly half of this historic parcel. The toe of the steep slope is the limit of the spring freshet that floods the wetland meadows and swamp forest along the Assabet River. The river, its banks and bordering vegetated wetlands have a richness of species diversity and wildlife habitat that is significant in its own right. The trails that descend from Harrington Avenue allow visitors a view of a river, where one can stand on its banks and neither see nor hear the greater world at large.

The upland bank of that steep slope rises up to the meadow and bosque landscape of the House, its gardens and the remnants of an agricultural past of meadow and orchard. This historic landscape is a dynamic place kept in check by man's hand. Left alone without attention, mowing, pruning or cuttings, this landscape would revert to an old field, a pioneer forest, and then into a mature forest landscape just as it was when the first Wheeler came to this site.

1.2 Periods of Significance

For the purposes of this report, the period of significance is defined as the 1740s to 1973. During this time the property was principally associated with four families and functioned as a residence with an agricultural focus. These dates coincide with those included in the National Register nomination form, with the exception that the nomination form ends the period of significance at 1963.

Documenting vernacular landscapes such as the Harrington Park and the Wheeler-Harrington House can be challenging without records or journals of daily routines, work practices or family history. Few such records were uncovered during the research process for this Assessment and none for the Wheeler era.

To understand the character of the landscape and the changes that ensued in the period of significance, this cultural assessment describes the property in three ways. For each of the early periods of significance, we provide three descriptions and discussions: 1) a general discussion of the development of the West Concord village and the Town of Concord as a whole; 2) a discussion of farming and animal husbandry practices typical for each era; and 3) a description of the development of the Harrington Park landscape. This will provide as complete record of the cultural landscape as the available historic resources allow.

Please refer to the Wheeler-Harrington Property Building Chronology in the Appendix for a timeline of property development.

1.3 Cultural History

1.3.1 Pre-development Era: Prior to 1740

The Native American community, the Massachusett, lived on and cultivated the land of Concord well before the European colonists arrived. They planted the three sisters: corn, beans and squash. They planted melons. They fished in the rivers for shad, herring and salmon and trapped the indigenous beavers and other species for pelts. They gathered “wild rice in wet meadows, cranberries in bogs, and nuts [from] the woods”. [Concord Historical Commission 3] Another vital food source for the Massachusett also came from the water. “The massive shell heap formerly located at Clamshell Bluff on the Sudbury in the area of Emerson Hospital [not far from the Wheeler-Harrington House site] attests to the reliance on freshwater mussels as a staple of the native diet...” [Forbes 5]

The rivers and fertile soils that their floodwaters brought to the land, the gentle and rolling terrain, and the hills that provided some protection against the harsh winter wind, made this area of eastern Massachusetts ideal for the first inland colonial settlement. The Town of Concord was incorporated in 1635 after a land purchase from the indigenous people, members of the Massachusett tribe. “The area was peopled by various Nipmuc groups, and the village of Musketaquid was established here as a principal center of the Massachusett tribe.” [Forbes 4] The confluence of rivers, presence of a number of smaller brooks and streams and the existing trail network made the area an obvious choice for the “first official town in the interior of the Massachusetts Bay Colony above the tidewater.” [Forbes 7]

By the time settlers purchased the six square mile parcel that would become the Town of Concord, the area had long since been cultivated by the native population – the Nipmuc.

Why settle here? Probably the keys are an existing trail intersection, proximity to Boston and Cambridge, friendly native community, three rivers, warmth on the east-west ridge, damnable brook, good soils of former crop fields, and, especially, river meadow hay to sustain livestock through the winter. [A Brief History of Concord, Concord Historical Commission 4]

Trails already marked the area and the Native American population would winter inland and summer along the coasts. Many of these old trails were likely incorporated over the intervening centuries into the roadways that would connect the growing towns. River fords would have been apparent to the colonists and would mark the locations where bridges would later be constructed.

By 1650 building had extended further along Lexington (“Great”) Road, but the general configuration of the town was a clustered “nucleated” settlement at the center, with outlying fields and common lands used for pasturage and agriculture. [Forbes 7]

In 1635, the early English settlers divided up six-square miles of land into house lots and a limited number of outlying parcels. (Hudson 282). This was the first division of land. Grazing and tilling of common lands continued to occupy three-quarters of the land in Concord by the

end of the period of the first division. (Donahue 95). Early in the new year of 1653, the town meeting concluded with a second extensive division of the common land.

The second land division broke up the land holding beyond the established village center into three quarters, the North, East and South (Donahue 103). The South Quarter included all of the land between the North River (Assabet) and South River (Sudbury), where Josiah Wheeler would found his home nearly a century later. Second Division Brook is an echo of that land division.

In the South Quarter, George Wheeler received 24 lots totaling 434 acres and Samuel Wheeler, 2 lots, 21 acres (Hudson 288). This acreage in the South Quarter is exclusive of the extended Wheeler family holdings in other Quarters of the Town at the time of the Second Division. “[The] Wheelers continued to dominate much of the South Quarter for over 250 years, as the original land grants were subdivided over successive generations to provide farms for sons, daughters and grandchildren.” [National Register 10]



Signage at Second Division Brook; Courtesy of Peter Benes

Following the Second Division, land was gradually settled along this stretch of the Assabet River. (Assabet River was known as “North River” until the 1830s.) Soon after the land division, George Hayward established a sawmill just to the west of Second Division Brook (west of the Harrington Park land of today). Later, a gristmill was added. A pond was formed on Second Division Brook close to where it met the Assabet River and milling in West Concord began. Just to the east of the Wheeler property several mills, including fulling, woolens and grist mills, (Hudson 341) were established along the falls.

Hudson (Page 341) notes that on March 5, 1658 a company was organized to erect an iron works in West Concord. This industry continued until the turn of the century when Hudson speculates it closed for lack of ore. To support the iron works a dam was built across the Assabet River at what has been called Westvale in the 1870s and West Concord in the modern era. The names of stockholders in the iron works included Joseph Hayward and Timothy Wheeler.



Slope and Floodplain, Harrington Park, April 2014

1.3.2 Wheeler Residence Era: 1740 to 1826 from Forest to Farm

The exact date of settlement by Josiah Wheeler in West Concord is unknown, but it is commonly assumed that the Wheeler Property began shortly after Josiah's marriage to Mary Lee in 1741 or 1742. At this time, the western portion of Concord was sparsely settled with only a handful of farms to the north of the Assabet River and even fewer homesteads south of the River. Until the 1860s, West Concord was a relatively unsettled and remote area, but it is easy to understand why the homestead site on the south bank of the Assabet would have been chosen for the Wheeler homestead. It was situated on a small knoll above the flood zone of the river. The bottomland within the floodplain would have provided grazing land for livestock and, once it was cleared of trees, the flat, upland landscape west of the House would have been ideal for farming.

The nomination form for listing the Property on the National Register of Historic Places states that the original property was just over 100 acres. A.S. Hudson indicates the Wheeler holdings in the South Quarter following the Second Division were over 400 acres, but split amongst a number of different lots. (Hudson 288)



The Assabet River from Harrington Park, April 2014

Clearing the Forests

The transformation of the landscape on the south bank of the Assabet River from forest to agricultural land would have been typical of land clearing in Concord during the second half of the 1700s. By the early 1700s, the expanse of forest that made up much of Concord when the settlers came had already dwindled. The forests were cleared for farm fields and pasturage. Wood for shipbuilding, house building and home heating would have used substantial amounts of forest timber.

The lack of seasonal migration by the Concord settlers put ecological pressure on the land. Livestock spreads widely, grazing down the limited forage of the forest. Firewood demands for huge inefficient home-fireplaces clean out the understory. The forest is perforated and pushed back for wood products. [...] Local game and fish populations drop, and have no chance to rebound. Deer, turkey, wapiti (elk), moose, and wolf become locally rare or extinct. [Concord Historical Commission 6]

The preferred beverage of the farm worker moved from beer to cider in the later half of the 1700s (Donahue Page 165) and conversion of forested land to orchard production was commonplace in Concord. Uplands that were too steep or rocky to plow were cleared and turned to apple orchards for the making of cider.

Apples are the 'prime article of culture,' each 'farmer or even cottager' having a large orchard and making hundreds of hogsheads of cider. 'The orchards in New England are reckoned as profitable as any other part of the plantation' [...]
[Leighton 137]

The transformation of the New England forest is best described visually by the Harvard Forest Dioramas. While the following images graphically describe the cultural and environmental

alterations of the landscape from forest to farm in central New England, they are illustrative of the transformations in eastern Massachusetts of the 18th and 19th centuries.



Circa 1740: forest is cleared for agriculture



Circa 1830: peak of deforestation and agricultural activity

Agriculture and Animal Husbandry

In *American Gardens in the Eighteenth Century*, Ann Leighton documents the cultivated New England landscape:

To call the vegetable gardens of the settlers on the Atlantic seaboard in the eighteenth century 'colonial' is to name them fairly. [...] the staple crops in the garden and field were much the same as those depended upon in England and the Low Countries, in France and in Spain. [Leighton 189]

Leighton names the crops that may have been grown in New England: hardy vegetables of the cabbage family, peas, onions, beans, beets, radishes, carrots and turnips, spinach, cucumbers and celery. Of course what was grown was greatly dependent upon climate and availability of seed sources. [Leighton 189] These crops would have been supported by potato harvest and an ample supply of orchard fruits.

In the cold northern climate, farming followed a short season and crops had to be preserved and stored properly to make it through the long winters.

In New England, by the time of the first snow flurry, roots and bulbs would have been gathered into the cellar, fruit arranged on shelves or, in the case of long-keeping apples, stored in barrels often inspected. The cider apples would have been made into cider and out into barrels with bungs, to facilitate 'drawing' when ready or stored with a 'mother' to make vinegar. Potatoes would be in bins, celery earthed up in a corner of the barn cellar, and all the other produce candied, salted, jellied, pickled, buried in sand, wrapped in paper or dried and hung from the beams. [Leighton 191]

Josiah Wheeler was a bricklayer by trade but like many property owners in rural Concord in the middle 1700s, he likely kept farmed and raised animals to provide the bulk of his family's larder.

After his death, Josiah left the property to his wife Mary who lived there until her death in 1799. After this, ownership of the property is unclear. The deed described the property as: “now dwelling house and Barns the land they stand on with the Lands adjoining”. [Benes *Outpost* 4] It appears that Josiah and Mary’s son, Thomas Wheeler, remained at the property for some time, but it was a relative, Noah Wheeler, Jr., who transferred the deed out of the Wheeler family. Noah Wheeler, Jr. owned the property but lived in the Nine Acre Corner area of town and leased the property. “[H]e may have required a typical rotation of crops similar to that planted around 1820 on the Hosmer Farm to the north, where fields were burned over and planted with rye, sown with corn or potatoes the second year, and seeded with a specific mixture of hay grasses after that.” [National Register 10]

By the 1770s Concord had developed a system of tax collection that recorded real property of its adult citizens (Pruitt, Ed. *The Massachusetts Tax Valuation List of 1771*). Real property not only included buildings and boats but land and agriculture and farm animals and livestock. Tax records from 1771 exist for a man named Noah Wheeler and a woman Mary Wheeler. Whether this Noah and this Mary were the same as our historic property owners, the 1771 census of property for tax purposes allows a sense of agriculture and animal husbandry in the Town of Concord in that era.

In Middlesex County, in the Town of Concord, Noah Wheeler produced 100 bushels of grain a year from his holdings, presumably from the 7 acres of tilled land he was recorded owning. He had 7 acres of pastureland, which the tax records indicate could keep 3 cows in pasture. He had 4 acres of English and upland mowing land that produced 2 tons of hay per year. He had 8 acres of fresh meadow, producing 6 tons of fresh meadow hay per year. He had an orchard, from which he produced 3 barrels of cider that year.

He owned 2 oxen, 5 cows, 7 goats and sheep and 3 swine. He had no servants and the annual worth of his real estate was £6 (6 pounds).

Mary’s particulars were similarly recorded. She owned 2 horses, 2 oxen, 2 cows, and 2 swine. She had no servants and the annual worth of her real estate was £3. Mary Wheeler produced 100 bushels of grain a year, presumably from 12 acres of tilled land. She had 13 acres of pastureland, which the tax records indicate could keep 4 cows in pasture. She had 2 acres of English and upland mowing land that produced 2 tons of hay per year. She had 8 acres of fresh meadow and produced 6 tons of fresh meadow hay per year. Her orchard produced 2 barrels of cider that year.

The role of oxen and cows in the lives of Colonial Americans is illustrative. Oxen were massive, castrated male bovine, often attaining weights of 1,800 to 2,400 pounds. Their castration would make them more docile compared with breeding bulls, docility being a particularly valuable quality for such strong and horned creatures. Oxen were used as draft animals. They were used for plowing fields, pulling carts and hauling wagons. They would have been the principle beast of burden used to pull stumps and skid logs for forest clearing. Rocks were New Englander’s most common field crop and these oxen would have hauled the largest to the edges of the fields. Oxen would usually be yoked in pairs but further pairs could be combined for heavier

work. The tax records indicate both Noah Wheeler and Mary Wheeler owned a 'yoke' of oxen apiece (a yoke is a pair of oxen).

Cows (adult females) or bulls (intact males) may also have been used as draft animals in some areas. But the female cows were predominantly kept for milk production.

Milk cows produce milk only after they have been bred and have birthed a calf. Since half the calves born are male and half are female, there would be a steady source of young male calves for oxen, breeding bulls and butchering for veal. The female calves would have grown into heifers (young females yet to calve) and then, at about their third year, bred for milk production. Milk cows no longer able to breed would be butchered for meat.

This was and is today a cycle that produced a reliable source of milk and meat and draft animals. Before the era of refrigeration, the milk would be skimmed for its cream. Butter would be made from the separated cream. The skimmed milk could be drunk fresh or allowed to sour and drunk as clabber, a thick and sour dairy product. Whole milk could also be made into cheese. The meat was eaten fresh or preserved by jerking, smoking or salting.

Swine were some of the earliest meat animals to come to North America, dating back to the era of Columbus and de Soto in the early 1500s. Pigs were raised strictly for meat, supplying salt pork, ham, and bacon for the table. Surplus pork could be brined and barreled for storage or trade. Goats were small, reliable and hardy milk and wool producers. Sheep would have been raised for their fleece and meat.

In his 1989 talk about the property entitled *An Outpost on the North River: The Wheeler-Harrington House and Farmstead, 1740-1988*, Peter Benes quotes Lemuel Shattuck in describing the abundance of fishing in the Assabet River, including pike, perch, and lamprey eels. He also described "Harrington's Rock": "the survival of three iron fixtures at the top of this rock, probably supports for a now-lost platform, suggest that this huge, advantageously situated boulder was used for the purpose." [Benes *Outpost* 11]

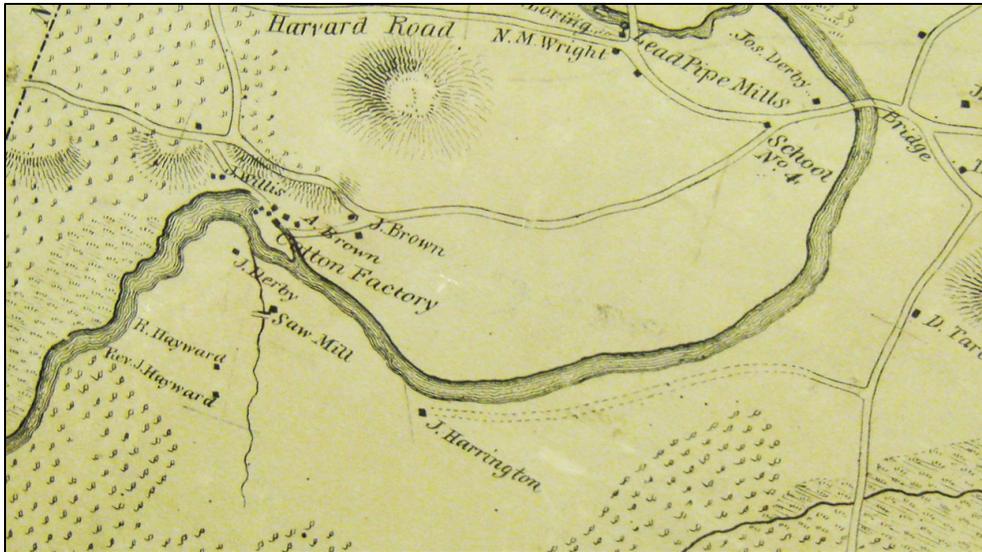


Harrington's Rock, Assabet River from Harrington Park, April 2014

1.3.3 Harrington Residence Era: 1827 to 1911 Railroads, Agriculture and the Changing Landscape

Joseph Harrington, Jr. acquired the property from Noah Wheeler in 1827. The property stayed in the Harrington family at least until 1907. According to the National Register form, the Harringtons may have been the tenant farmer of Noah Wheeler.

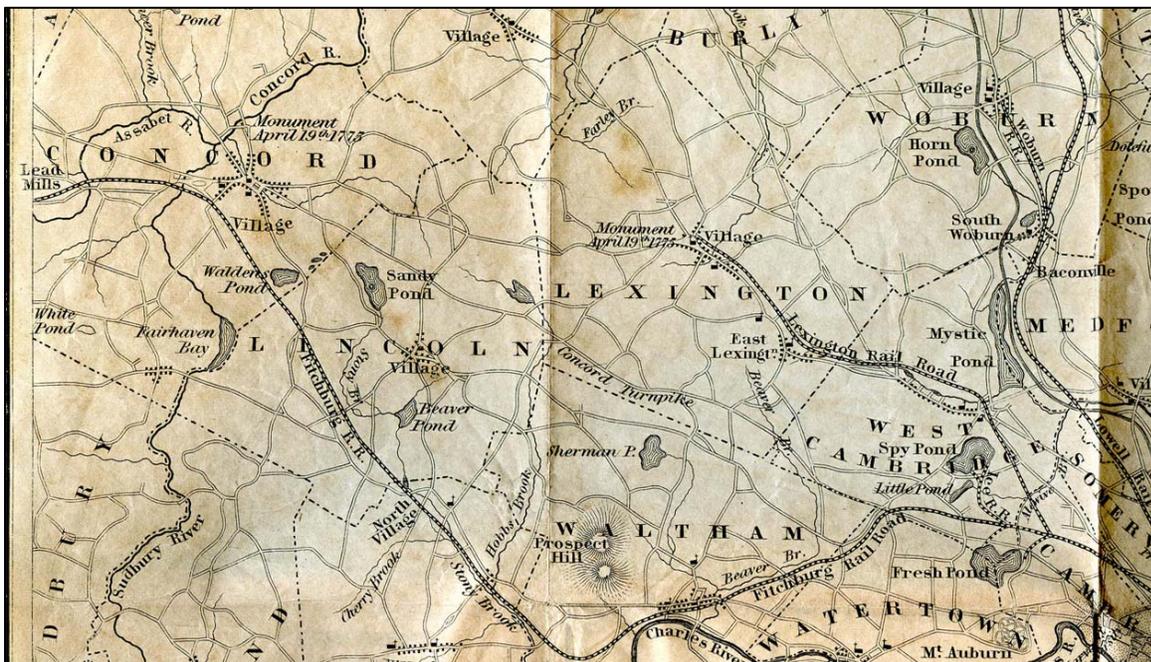
The map of 1832 shows a small number of houses and a cotton factory in the small enclave of West Concord. A sawmill is shown on the unlabeled stream (today's Second Division Brook). Joseph Harrington, Jr. shares the lands below the Assabet River with R. Hayward, the Rev. J. Hayward and J. Derby.



1832 Map: Courtesy of Concord Historic Commission

Railroads

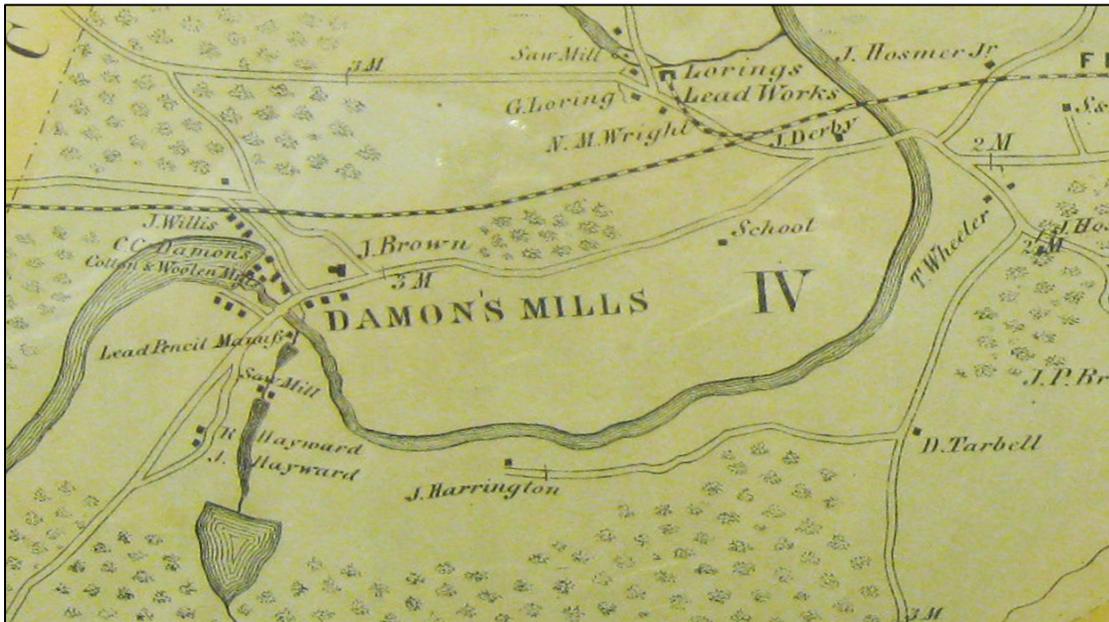
In the middle of the 1800s, the agrarian culture of West Concord changed dramatically with the increased presence of industry and the arrival of railroads and the telegraph. In 1844, the Boston-to-Fitchburg rail was completed, bringing West Concord into its own as a proper village connected to the communities beyond. The 1849 Map shows the Fitchburg Railroad crossing the Sudbury and Assabet Rivers westward.



1849 Map of the Vicinity of Boston Engraved for the Boston Almanac 1849 Engraving by G.W. Boynton, Library of Congress

Across the Assabet River, an area labeled as Damon's Mills on the 1852 Map records cotton and woolen mills, the continued presence of the sawmill and Lead Pencil Manufacturing Company.

Improvements to industrial facilities included upgrades to the structures powering the mills: the dam and raceways, and – perhaps more significantly to the village – Damon built boarding houses for the workers on Water Street. When a powder mill was founded to the west of Damon’s Mills, new roadways were necessary and the first bridge to cross the Assabet was built, which would allow Joseph Harrington Jr. to drive west on a cart path from his property to cross the river and reach Main Street.



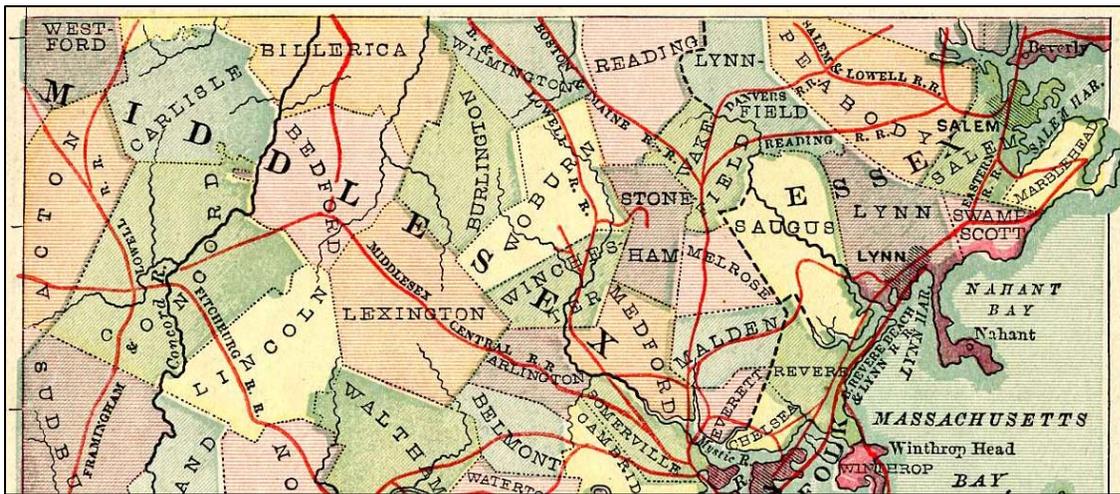
1852 Map: Henry Francis Walling, engineer. Concord Historic Commission



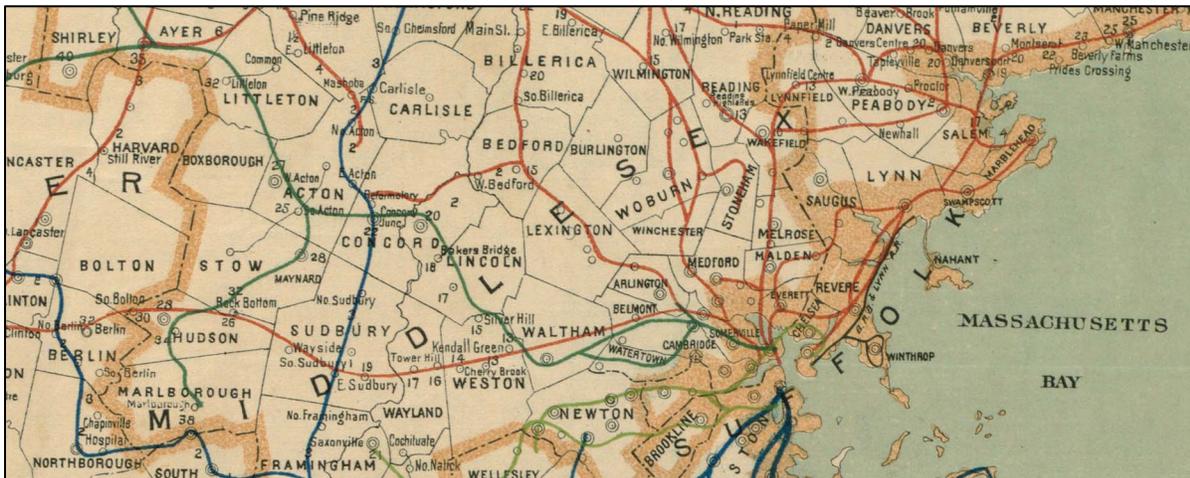
1854 Map: Telegraph and Railroad Map of the Northeastern States, Alex Williams; Library of congress

The 1854 Map shows the Morse's telegraph line running parallel with the Fitchburg Railroad, indicating that Concord and West Concord were increasingly integrated with the rest of Massachusetts.

A few years later in 1872, the Framingham-to-Lowell Railway was completed, creating a junction out of the West Concord village. Two more rail lines would come to the village in subsequent years making a hub out of "Concord Junction" and solidifying the area as the industrial center of the town.



1876 Harper Brothers Map of Massachusetts, Library of Congress



1899 Map of the Railroads of the State of Massachusetts, accompanying the Report of the Railroad Commissioners, Library of Congress.

By 1899, the Fitchburg Railroad (the east-west green line above) and the New York, New Haven & Hartford Railroad (the north-south blue line) crossed at Concord Junction. The Boston & Maine Railroad had a spur line connecting Concord to its northern line in Bedford.

Railroads and Agriculture

Increases in transportation and communication allowed 19th century farmers to keep pace with technological advances in farming. Food production benefited from an expanding variety of

crops. Agricultural societies proliferated. New tools, equipment and machinery of the industrial era and railroad transportation made farming more productive and allowed farmers to deliver produce and food to new markets more efficiently.

Transportation improvements also coincided with advances in farm implements and machinery and with the rise of farming publications and journals, both of which sparked a movement toward progressive farming that was felt in all rural areas of town. [Forbes 23]

The railroads introduced new crops to the climate of New England. Improved roads and the expanding rail lines allowed goods to be shipped to market before spoiling. This was especially true of dairy production. "Soon after the railroad came through a local milk car began running from the Fitchburg Depot to Boston everyday to transport Concord's milk." [Forbes 22] Efficiencies in transportation and an expanding agriculture technology allowed farms to specialize, no longer needing to produce a broad and diverse crop for the balanced diet of the family.

The region saw a rise in dairy production, which became a new agricultural specialty in Massachusetts generally and Concord specifically (Harvard Forest, Landcover and Census Data 1640 – 1999). The historic census of livestock in Concord for the 19th century follows.

1801,MIDDLESEX, Concord, Oxen 4 yrs, 374

1801,MIDDLESEX, Concord, steers, cows 3 yrs, 934

1837,MIDDLESEX, Concord, Common Sheep, 913

1845,MIDDLESEX, Concord, neat cattle, 1343

1845,MIDDLESEX, Concord, Sheep, 48

1855,MIDDLESEX, Concord, Merino Sheep, 5

1855,MIDDLESEX, Concord, oxen 3yrs, 226

1855,MIDDLESEX, Concord, steers 3yrs, 161

1875,MIDDLESEX, Concord, Bulls, 26

1875,MIDDLESEX, Concord, heifers, 112

1875,MIDDLESEX, Concord, Merino Sheep, 10

1875,MIDDLESEX, Concord, milch cows, 939

1875,MIDDLESEX, Concord, Other Sheep, 40

1875,MIDDLESEX, Concord, oxen, 20

1875,MIDDLESEX, Concord, steers, 2

1885,MIDDLESEX, Concord, Bulls, 46

1885,MIDDLESEX, Concord, heifers, 189

1885,MIDDLESEX, Concord, milch cows, 1402

1885,MIDDLESEX, Concord, oxen, 6

1895,MIDDLESEX, Concord, cows, 1625
1895,MIDDLESEX, Concord, heifers, 130
1895,MIDDLESEX, Concord, oxen, 2
1895,MIDDLESEX, Concord, Sheep, 6

The census data indicates a steady decline in oxen and steers (male bovine castrated and used as draft animals and meat production respectively) and the rise of dairy cows for milk production (milch [milk] cows, cows and heifers, which are young cows not yet in milk production) in 19th century Concord. The declining presence of steers, bulls and oxen in the census data suggests that male calves, usually accounting for half of cow births in most bovine populations, were being butchered for veal production.

The decline in oxen population, from 374 in 1801 to 2 in 1895, suggests the need for oxen as draft animals had significantly declined. One of the principal uses to which oxen were pressed was for clearing the New England forest. They were used to haul logs and pull stumps. As the forests of New England were cleared in the 1700s and 1800s (Harvard Forest dioramas), the need for oxen as draft animals declined. The decline in the population of oxen in Concord may also represent an important shift to the use of horses as draft animals.

The railroads and the improving ease of shipping goods allowed Concord farms to produce new crops, asparagus and strawberries being the most significant. Though it can't be confirmed that Joseph Harrington cultivated either asparagus or strawberries, both were popular with other Concord farmers. The same is true of the newly developed Concord grape, which was introduced by Ephraim Bull in 1854. [Forbes 23]

The deed transferring the property from Noah Wheeler to Joseph Harrington in 1827 included a "new barn" on a 104-acre property that was "70 acres improved and 34 acres unimproved". [National Register 11] The town maintained better records during the Harrington tenure. The nomination form for the National Register of Historic Places describes the farm as a:

...fairly large farm that was typical for its time, with a small assortment of livestock, fields planted with hay and a variety of grains, and a few acres of potatoes and beans. [...] As early as 1837 Joseph owned a horse and chaise, and he was among Concord's farmers who had a personal estate high enough to show up on tax records. [...] By 1841 he owned four oxen, along with seven cows and two pigs. In 1840 and 1853 he added a few acres of land to the southwest end of the farm, which gave him access to the mill pond on Second Division Brook.

[National Register 11]

This is a description of a working farm. The oxen would have been used as draft animals. The cows would have produced milk and the pigs gave meat. Potato and bean production supplemented varieties of grain. That Harrington could gain access to the millpond on Second Division Brook by purchasing a few acres, attests to how much larger the Harrington property was in the latter half of the 1800s than Harrington Park is today.

By 1846 Harrington's wife and eldest daughter were both dead. His younger daughter Lucy appears to have taken on the traditional female role, tending to her father and the yeoman laborers that would have been employed. When Joseph Harrington died in 1887, Lucy took over the management of the farm and ran it until her death in 1907. When she took ownership, the farm had been increased to 111 acres but livestock reduced to one horse and one cow. She gradually increased this to include 30 chickens.

[H]ay appears to have been her primary market crop – in that year [1880] 25 tons were grown on 50 of the 100 acres. A few acres produced corn and potatoes, and the trees on the property provided eight cord of commercial firewood – an important agricultural commodity at that time. Unlike most local farmers, Lucy was still producing butter – 150 pounds in 1880. [National Register 11]

Since few women managed farms in that era, Lucy would have been in a relative minority. While Lucy may not have been as successful in farming as her father Joseph, she was able to maintain a living from the land and its resources. But the statistics cited should be put into perspective.

In 1889 milk cows in the United States produced about 3,047 pounds of milk a year (Gross National Product, Canada 114). Today, cows in the United States can produce up to 59,000 pounds of milk per year. The average fat content in milk in the United States between 1889 and 1891 was 2.9 percent for Holsteins and 3.6 percent for Ayrshires. (USDA) By comparison fat content of whole milk today is 3.25 percent. By today's standards, 21.1 pounds of whole milk will produce one pound of butter. If Lucy had been churning butter in 1889, her one cow would have produced about 144 pounds of butter, based on today's fat content. Lucy would have been churning butter every day in 1889 to produce the butter weight cited in the National Register quote above. Her cow would have been producing about a gallon of milk per day compared to 19 gallons per day in 2013. It is likely that after skimming the butterfat from her milk she might have consumed the skim, or, as was commonly done, fed it to the pigs.

The 19th century Harrington farmstead may have been surrounded by some of the few remaining woodlands in town. By 1850 only ten percent of the town remained forested. The Second Division Brook and Walden Woods were the two remaining woodlots in town. The severe reduction of the native woodlots and changes in vegetation cover from a wooded canopy with an understory shrubs layer to a mix of grazed and cultivated land dramatically affected waterways and wetlands. Erosion of hillsides and sedimentation of streams and rivers increased significantly. With the loss of forestland, stormwater moved across the landscape more quickly, increasing the size and duration of flooding.

Due to changes in the vegetation cover of the local watersheds and upriver industrialization on the Assabet and Sudbury Rivers, the hydrology of the floodplains in Concord changed. "The floodplain river meadows flood for long periods, decimating hay production. [...] Many swamps are drained for pasture, but with extensive erosion and sedimentation, farmland ditches must be dug out regularly." [Concord Historical Commission 10]

It appears that the Harrington riverfront landscape was managed in this manner. Two channels are evident in the lowlands on the south bank of the river. Each channel is cut diagonally from southwest to northeast and connects to the swiftly flowing river.



Drainage Channel, Harrington Park, April 2014

1.3.4 Lapham Residence Era: 1912 to 1923

When Lucy Harrington died without heirs, the property was transferred to relatives and then sold to Waldo Lapham. While Lapham's ownership of the farm lasted only 12 years, his tenure altered the property in significant ways. Lapham appears to have been a land developer. In 1913, he began to subdivide the property and broke the parcel into 34 separate lots. He improved the old road to serve the subdivided lots on either side. In 1929 the Town extended the road westward and made Harrington Avenue an official roadway. [National Register 12]

As part of the subdivision of the farm, the Wheeler-Harrington property was reduced to a parcel of less than 12 acres and resold to Waldo's brother Daniel in 1915. (This smaller parcel included 6.33 acres around the residence and 5.25 acres to the east, primarily wetlands.) The subdivision of farmland was a common trend in New England in the early part of the 20th century as property owners turned to other sources of income and no longer had to rely on their land for agriculture and raising animals for meat and milk.

While it is unclear of what other changes Daniel Lapham made to the reduced farm property, the National Register nomination form suggests Lapham planted the apple trees to the west of the residence.

Herbert Gleason, a Malden native who documented much of the Concord landscape through his interest in Thoreau, photographed the Wheeler-Harrington House, which shows a glimpse of the historic homestead on the bluff beyond. The elms appear to be on the south side of an unimproved Harrington Avenue evident behind the trees. The slope from the cart path up to the House is the middle ground on which are two young saplings can just be made out. Looking closely, you can see a barn beyond and west of the House. A stone wall sits in front of the House.



Wheeler-Harrington House, detail from Gleason "Elms at Harrington's Concord, Mass", Concord Library Special Collections II. 1916.35 film, Box 1

1.3.5 LeBallister Residence Era: 1924 to 1973

In 1924, Ralph LeBallister purchased the Harrington homestead with his mother, Theresa. Over the years, LeBallister was able to buy back some of the parcels subdivided by Lapham including land to the north and east of the house lot and on the south side of Harrington Avenue.

Shortly after the LeBallisters purchased the property, the Pine Street Bridge was constructed over the Assabet River. With this new bridge to the east supplementing the older, westerly

bridge at Damon's Mills, the lands south of the Assabet were more accessible and more easily developed. What had been a remote part of town for nearly two centuries became fully accessible as roads were improved and motor vehicles grew in prominence for travel and transportation.

Similar to the introduction of the railroad in the mid-1800s, 20th century road building dramatically affected Concord. The Cambridge Turnpike was completed in 1935, allowing motorists to bypass Concord town center. "Through Lincoln the new Concord Turnpike follows the path of the 19th Century Cambridge Concord Turnpike." [Carr 1] The turnpike was later incorporated into Route 2, which was constructed in the early 1950s and bisected the Town of Concord with a constant flow of traffic and increased freeway speeds.

With the ease of transportation of all types of goods, especially food crops, the significance of agriculture in Concord dropped dramatically: The introduction and ease of movement of new plant and insect species brings disease and destruction along with the benefits of a new variety of food sources. In Concord, the native chestnut stands are wiped out by the introduced blight. "Red maple, white pine, red oak, ash, and other trees take over, producing a forest very different from those at pre-settlement, revolutionary, or mid-19th century times." [Concord Historical Commission 16]

After World War II, LeBallister began to board horses on the property making the conversion from grain and vegetable farming to animal husbandry. Much of the property was used for pasture and paddock. Several references exist of the idyllic nature of the LeBallister's horse farm. In an interview, Lou Hills said that the neighbors would often stop along Harrington Avenue to watch the horses in paddock. LeBallister replaced the large historic barn with a smaller stable for the horses.

Peter Benes described finding remnant fencing around the lowlands on the south bank of the Assabet connecting back to the fragmented stonewall on the path to the water. And, in his 1989 talk about the property, he reported finding evidence of a watering trough. [Benes *Outpost* 11] Today, an old hand pump for water can still be seen on the southeast shore of the Assabet.

Electricity and plumbing were introduced to the property by the LeBallisters.



Hand pump, Courtesy of Peter Benes

When the LeBallisters listed the property for sale, all the land south of Harrington Avenue was divided and sold separately to developers.

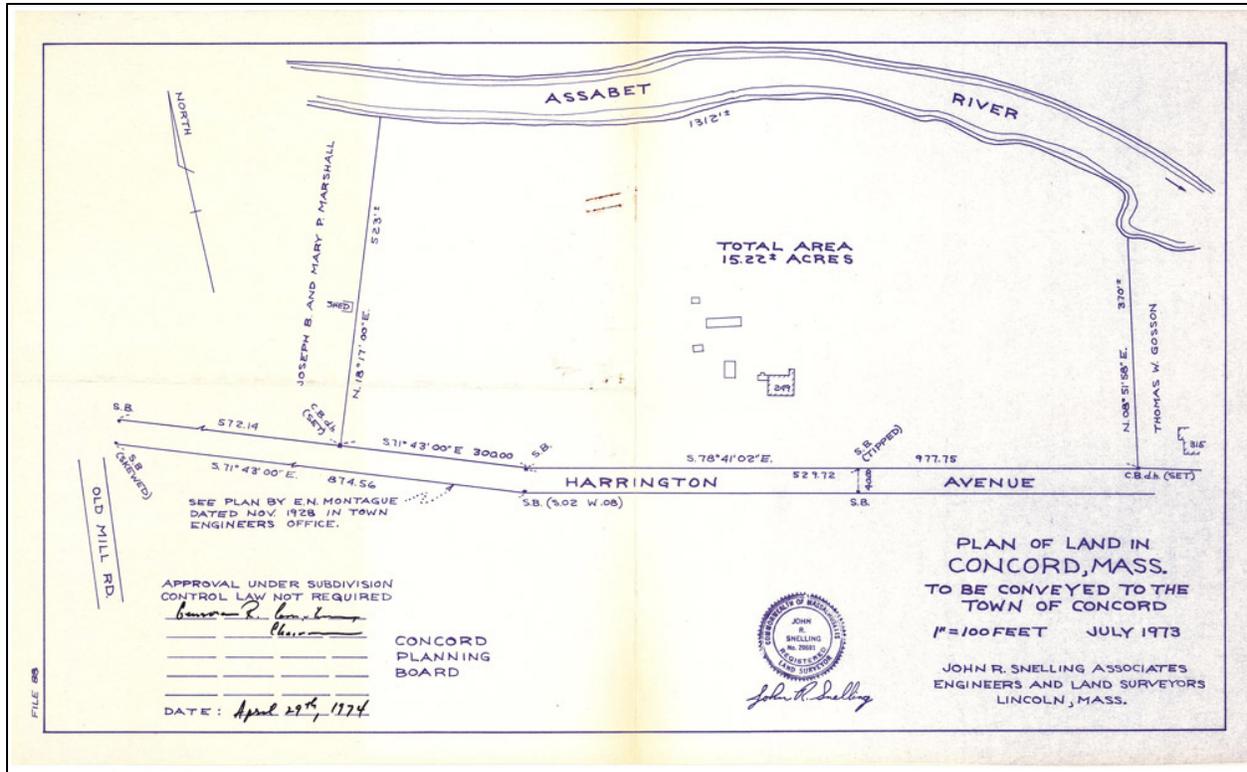
1.3.6 Municipal Ownership: 1974 to the Present

Early in the 1970s, the LeBallister family decided to sell their property on Harrington Avenue. Neighborhood families heard that the property was being offered to a developer who intended to turn the property into a tennis club with recreation facilities. Concerned about the potential impacts to the neighborhood and the likely loss of valuable natural resources to the Town, neighborhood residents gathered together to try to circumvent this commercial development.

During this time, the Town's Natural Resources Commission was working to increase Town conservation lands. The LeBallister property on Harrington Avenue became a significant opportunity for expanding Town land in West Concord. Community debate about potential public use for the site erupted when it became known that the Town's plans for the property included demolishing the historic home and transforming the site into a recreation park with playgrounds and athletic fields. In April 1973, a plan for the park was prepared for the Town, which included "nature view area, meadow habitat, an informal ball field, children's play area, information trail system, riverside picnic area and a canoe launch site". [Ryan 1]

Petitions from concerned Concord citizens pressed the newly formed Historical Commission to become involved in saving the historic house. In the meantime, the LeBallisters had moved out of their home and vandalism was threatening both the vacant structure and unsupervised landscape.

In the fall of 1974, the Town of Concord purchased the LeBallister property for two distinct purposes; park land for passive recreational use by the public and historic preservation of the entire Wheeler-Harrington Property. These separate purposes required the involvement and oversight by two different municipal commissions: the Concord Historical Commission (CHC) was charged with control over the Wheeler-Harrington House and grounds while the Concord Natural Resources Commission (NRC) would maintain and manage the remaining upland fields, slopes and riverfront areas.



1973 property line plan: from files of the Concord Library Special Collections

The CHC lobbied for the preservation of the house, citing a number of reasons:

- 1) historical significance of the house – 1700s, few structures left in the river setting of the period;
- 2) restoration for moderate price housing;
- 3) house will not interfere per NRC and Recreation Dept. with land recreation use;
- 4) become a source of Town income and self-supporting;
- 5) most neighbors favor saving if bulldozing is the alternative. [Ryan 2]

The Town voted to accept the Article to purchase and preserve the farmhouse and, shortly thereafter, the CHC prepared a lease to sublet the residence to a caretaker who could help maintain and repair the House. Prior to the caretakers moving in, initial repairs had to be made before an occupancy permit could be issued. During the summer of 1975, volunteers were rallied and, with \$6,800 of the Town's money plus generous private donations, the residence was brought up to code. In November 1975, the first caretakers – Rob and Becky McCall – moved in with a lease that stipulated simple repairs were to be made in turn for a reduced monthly lease payment.

In order to establish a reliable source of funding for the upkeep of the Harrington House and the surrounding grounds, the Harrington House Fund was codified under Article 39 of the May 1977 Town Meeting. The Harrington House Revolving Fund Bylaw established a revolving fund, which allowed gifts, grants and Town appropriations to be used for the upkeep, repairs, restoration, maintenance and improvements to the Harrington House. The Bylaw stipulated the Concord Historical Commission would be allowed to accept grants or gifts to be used as working capital for the general upkeep of the House and residential grounds.

By 1980, a community garden had been established in the floodplain and was under the supervision of Rob and Becky McCall, the first caretaker tenants. (Documentation does not suggest how long the gardens lasted. The gardens did not exist during the Benes' tenure as tenant caretakers.) The following season, there were as many as twenty garden plots open to the community. In an interview, Lou Hills, one of the early proponents of the property and later the Chairman of the CHC, acknowledged the initial tenants: ". . . Rob McCall's likeable nature. He wrote little articles in the *Concord Journal* about what it was like to live in the Harrington House, and the birds and animals and the farmland around." [Garrelick 4] Early in 1982, the Rob and Becky McCall left the property. Susan Thortenson became the new resident caretaker for about a year.

In July 1983, Peter and Jane Benes were selected as caretaker tenants, and moved into the residence with their two daughters. Peter and Jane Benes have remained tenant caretakers/curators since then. Over the years, the Benes family entertained house tours, Cub Scout troops, and school groups on the property. They also hosted Town celebrations such as "Old Concord Christmas" and volunteer appreciation events.

An interview with Peter and Jane Benes from 17 August 2001 records that they had made significant improvements to the farmstead. They "maintained numerous gardens (including berry patches), planted trees (fir, apple, pear and cherry), kept ducks, chickens, a rooster". [Peter & Jane Benes 1] The report continues to describe Harrington Park: "Park is rarely used. People walk dogs; kids fly kites; some walk the small path to the river. Land is more conservation than recreation. [...] Building is rarely visited by the public". [Peter & Jane Benes 1] Other improvements included the planting of raspberry and blueberry bushes, quince bushes and grape vines; the clearing of invasive species around the property; and removal of dead trees.

The Concord Library's Special Collections includes an incomplete record of the property entitled "Addendum A", which describes "selected improvements undertaken by Peter and Jane Benes at the house and grounds at 249 Harrington Avenue in the period from 1983 through 2004." [Benes, "Addendum A." 1] The record states that the caretakers "removed trash dump from behind the house and removed approximately three truckloads of debris from conservation land" during their first decade living at the residence. It also describes their efforts to improve the conditions around the House by creating windbreaks with planting of evergreen trees, which also helped to reduce erosion on the slopes. The document states they planted "...six hollies, about ten eastern pines, six Austrian pines, two birch trees, six Scotch pines, two white spruces...". Many of these evergreens are still growing along the western edge of the driveway.



Evergreen windbreak on western side of residential drive, winter 2014

The National Register form documents that during the LeBallister era four structures were removed from the property between 1974 and 1975. These structures included a horse stable, an open-air shelter/shed for the horses and two miscellaneous outbuildings. These were later replaced with other sheds that better suited the needs of the Beneses, including a chicken coop and various storage sheds. From various documents that detail the Beneses time on the property, we also know that the 19th century fieldstone wall that was built in front of the residence was dismantled to some extent. Some of the stones were used to support the failing foundation, while others may have been used to build portions of the kitchen garden.

SECTION 2 EXISTING CONDITIONS REPORT

2.1 Character-defining Features

The Concord Historical Commission is responsible for the management of the Wheeler-Harrington House and residential landscape, while the Natural Resources Commission has oversight responsibilities for Harrington Park. The Existing Conditions Report breaks out the 15.22-acre parcel into two general assessments corresponding to this division of Town responsibility: an analysis of existing conditions for residential landscape surrounding the Wheeler-Harrington House, and an analysis of the different landscapes of Harrington Park.

This is an artificial division of the historic property that corresponds to contemporary management responsibility. When we consider the character-defining features of the historic site, we cannot segregate the historic House from the entire parcel. From the days of the Second Division in the 1700s, this was a farmstead. Even as the size of the property swelled and shrank over the centuries, the House and land were integral to the survival and prosperity of the many generations of owners who lived on this property.

The *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (the *Guidelines*) defines a character-defining feature as "a prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character." [Birnbaum 4]

Therefore the character-defining features of this property must be considered in their totality. These include:

- a. The setting of the House on the highpoint of the property, located back from the road and well above the flood plain of the Assabet River. The House is set at the eastern edge of the upland property, preserving the flat land westward for agriculture.
- b. The House's south facing, moderately sloped front lawn, including the emblematic residential driveway and parking area.
- c. From there, the broad, open agricultural field west of the House, a bountiful landscape constantly under successional pressure to revert back to forestland.
- d. The steep, forested slope that falls away from the upland fields to the floodplain of the Assabet, serving as a repository of various native and exotic plant species.
- e. The riverfront landscape along the Assabet River, including a natural levy, a mosaic of upland and wetland soil and plant communities and a wet meadow.
- f. The Assabet River and the small, contributing tributaries that flow across the riverfront landscape.
- g. The soil underlying the entire site, consisting of a riverine mix of sandy loam, coarse sands and gravels, entirely hidden from view but essential to the landscape history and character of the farmstead.

2.2 The Landform Setting of the Wheeler-Harrington House & Harrington Park

In 1972 the Town of Concord purchased Parcel 2712, 15.22 acres of upland meadow, wooded slope and riverfront wetland between the Assabet River and Harrington Avenue. The Wheeler-Harrington House sets at the center on the property on the eastern edge of the low knoll. It sets above the River with the land falling away on three sides.

On the northern bank of the Assabet is West Concord village, significant to the history of the Town yet somewhat autonomous to Concord center today. It is a small, thriving community with shops and restaurants. At the center of West Concord village is the intersection of Main Street/Route 62 and Commonwealth Avenue and the crossing of the historic railroad right-of-way and the Assabet River. The West Concord stop on the Fitchburg branch of the MBTA commuter rail line is an important commuter transit stop. The Concord Turnpike/Route 2 is east of West Concord. Between Route 2 and Harrington Park is the Concord Country Club, a golf course that is visible when approaching the property from the east. The Musketaquid Sportsmen's Club is south of Harrington Avenue on Strawberry Hill Road. The sound of rifle shots can be heard at Harrington Park.

Unlike many early New England homesteads that were built close to their roads, the Wheeler-Harrington House was built high and back from the lower access road. While the House is historic, the outbuildings and ornamental gardens surrounding the House are not. The caretakers of the Wheeler-Harrington House, Peter and Jane Benes, developed the gardens and outbuildings during their tenure.

The Wheeler-Harrington House, outbuildings, residential landscape and gardens occupy no more than 2 acres of the total 15-acre parcel. The majority of the landscape could be considered Harrington Park, a Town-owned, minimally maintained park that includes open meadows, hedgerows, wetlands and riverfront. Harrington Park is served by a poorly marked drive and a hidden parking lot. A series of unmarked trails connect the meadow landscape of the upland portion of the Park to the wooded swamp landscape of the riverfront portion of the Park. A steeply graded and wooded slope separates the upland and riverfront parts of Harrington Park. The western part of the upland is currently in agricultural use and is operated by the adjacent farm operation. This agricultural field is fenced off from Harrington Park.



Map 01: From Concord MA GIS; www.mapsonline.net/concordma/index.html , showing the Assabet River and 2 foot contours in green

The Slope between Upland and the Riverfront Area: A steep slope bisects the parcel from northwest to southeast. It is the dominant landform of the property. The slope separates the westerly upland landscape of the house, outbuildings, gardens and meadow from the riverfront area and its bordering vegetated wetlands of the Assabet River.

The slope becomes shallower mid-way between the House and the western property line, allowing access down to the riverfront area. In Figure 01, the slope can be seen extending bottom left to top right and is marked by large deciduous trees (see Environmental Assessment). The access path between upland and riverfront bisects the slope and is visible in aerial photographs (See Figures 01 and 04)



Figure 01: Bing Maps: www.bing.com/maps 2014 Microsoft Corporation Pictometry Birds Eye © 2012 MDA Geospatial Services Inc.

Mature deciduous trees dominate the slope, casting a shade dense enough to inhibit understory growth for much of its wooded extent. (Figures 02 and 03)



Figure 02: Looking south up the steep slope viewed from riverfront area



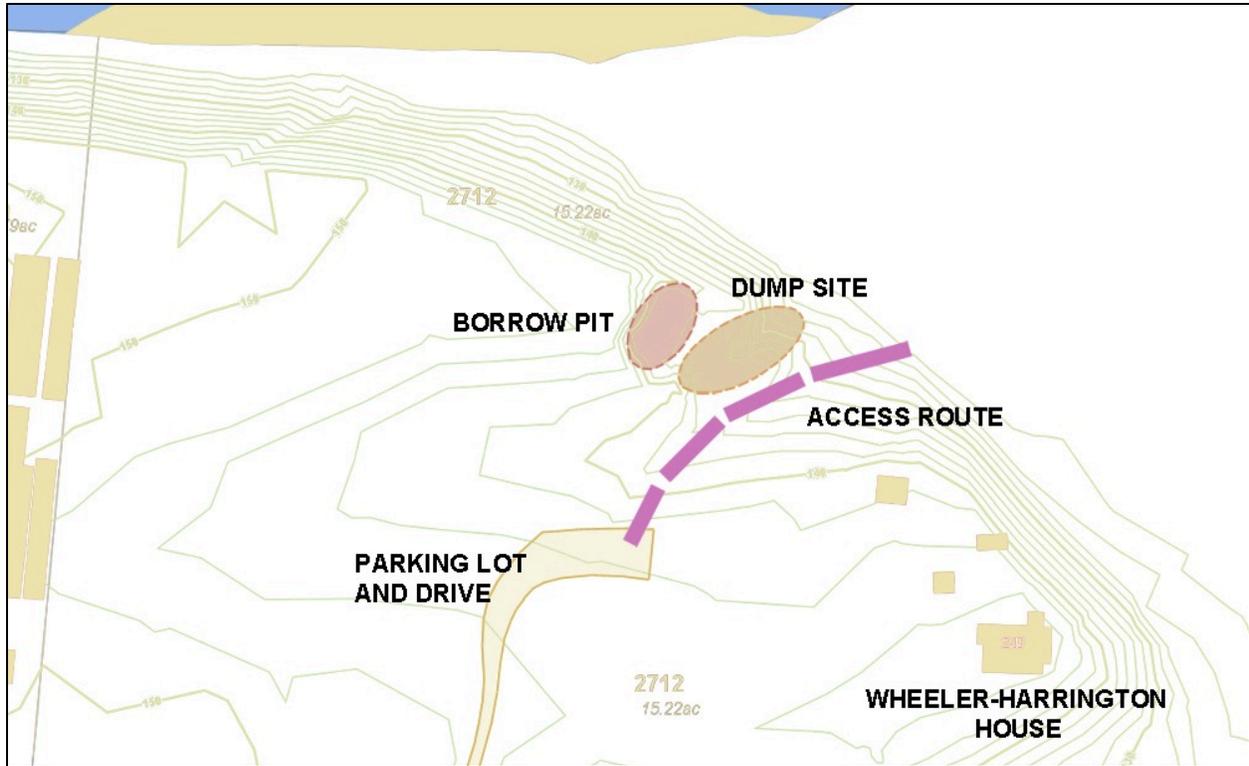
Figure 03: Slope from crest to Assabet River



Figure 04: Access path down the slope

The upland soils of the meadows and gardens are gravelly sands. They are free draining to the point of being droughty. (The front lawn has sparse grass and forbe cover and patches of exposed bare, sandy soil. Peter and Jane Benes report needing to amend the garden soil with organics to increase water-holding capacity. From interview 2014-09-16) The hand-dug well in the basement of the house is approximately 20 feet deep as measured from the first floor and was dry upon inspection September 16, 2014. The depth of the dry well suggests groundwater levels are lower still.

There is evidence of a town borrow pit and a refuse dump site immediately west of the access path down to the riverfront area (Figures 05 and 06). (Peter Benes interview 2014-09-16). Mr. Benes believes the borrow pit served as a source of gravel for Town road repairs. Cast off appliances, junk and debris remain visible at the dumpsite. See location in Map 02 below.



Map 02: Access Route to Riverfront, with dump site and borrow pit



Figure 05: Borrow pit



Figure 06: Dump site

Exotic invasive species of trees, shrubs and vines have infested the upland slope and portions of the meadow landscape of Harrington Park. While not an overwhelming environmental issue at this time, any management scheme should include an invasive species eradication program. Refer to the Environmental Assessment for a listing of the invasive species.

The common invasive species found on the Harrington Park portion of the site are shown below. This is not a complete listing of invasive species, but a pictorial most-wanted-list of offenders:



Figure 07: Bittersweet Vine



Figure 08: Buckthorn



Figure 09: Burning Bush



Figure 10: Honeysuckle



Figure 11: Japanese Knotweed



Figure 12: Norway Maple

2.2.1 Management Recommendations

- a. Develop a clear and concise wayfinding system of directional and interpretive signs to inform and guide visitors to the public access sections of Harrington Park.
- b. Initiate a protocol to monitor and eradicate invasive species on the property. See Appendix 3 for MassDOT Invasive Plant Management Strategy specification for the eradication of invasive species.

2.3 Harrington Park - The Upland Areas

The upland portion of Harrington Park occupies approximately 4 acres of open meadow, remnants of an old orchard, wooded slope and overgrown copses of trees. This upland area extends from the agricultural land on the west to the parking area of the Wheeler-Harrington House.

2.3.1 Driveway and Parking Lot

An obscure driveway connects Harrington Avenue to a parking lot towards the rear of the parcel (Figure 13). Concern has been expressed that the Harrington Park parking lot cannot be seen from Harrington Avenue and is utilized for illicit activities beyond amorous teenagers and occasional beer drinking. Obscuring the parking area is a copse of trees overgrown with volunteer trees, shrubs and weeds. (Figures 14 and 15)



Figure 13: Concord MA GIS; Harrington Park driveway and parking lot



Figure 14: Looking west from the Wheeler-Harrington House to the parking lot at Harrington Park. Copse of trees on south side of parking lot obscures views of parking lot from Harrington Avenue.



Figure 15: Looking north from Harrington Avenue; Harrington Park driveway. Copse of trees obscures views of parking lot from Harrington Avenue.

2.3.2 Views and Vistas

Broadly speaking, there are 4 kinds of views to consider at Harrington Park:

- a. Looking into the Park (views from Harrington Avenue or views from the Wheeler-Harrington House)
- b. Internal Views: Looking at the Park from within the Park (views from the driveway entrance to the parking lot or from the parking lot to the trail head)
- c. Looking out of the Park to adjacencies (views to the Wheeler-Harrington House or views to the adjacent farm)

- d. Looking across the Park (ex: views from Harrington Avenue to Wheeler-Harrington House or from the House across the Park to the agricultural land)

2.3.2.a - Looking into the Park from Outside

As noted previously, the view of the parking lot from Harrington Avenue is obscured by the copse of trees on the south side of the parking lot. This will continue to be a policing issue best resolved by clearing out all of the vegetation except the two mature trees in the stand. (Figure 15). But just as important, this copse of trees makes the park look smaller than it actually is. By removing this vegetation, the depth of the view into the Park from Harrington Avenue will be increased.

This will also be the case when the park is viewed looking west from the Wheeler-Harrington House. The offending copse of trees shown in Figure 16 limits the view across the Park to the agricultural land.



Figure 16: View west from residential parking lot.

2.3.2.b - Internal Views:

In addition to removing the undergrowth of the copse of trees at the parking lot, there are two additional groves of trees that should be cleaned up and unwanted volunteer and invasive species removed. In Figure 17 the middle group of trees are White Ash, a species of trees that turns a copper bronze color early in the fall. Once this tree species was prolific. It is now in serious decline. Any opportunity to showcase this species should be taken.



Figure 17: Clearing out the understory of groves of trees at the northwest corner of the site.

The trees to the far right of Figure 17 and closer still in Figure 18 are predominantly Red Oaks. These are also being taken over by invasive species and would benefit greatly by having the understory completely removed.



Figure 18: Showcasing the White Ash left and Red Oaks right by clearing out invasive species

Another set of internal views exists at the top of the wooded slope that separates the upland from the riverfront area (Figures 19, 20, 21). In Figures 22 and 23 there will be opportunities at the far corner of the meadow to manage and improve the views down into the Assabet River corridor.



Figures 19, 20 and 21: Create sight lines to agricultural land on left and views of the river on right

While a trail system may not be feasible along the south bank of the Assabet River due to seasonal high water and limited available dry bank, a trail system that runs along the crest of the north-facing slope would afford views down to the River, especially if permission is given to do selective thinning and pruning of limbs and vegetation to improve internal views.



Figures 22 and 23: views of Assabet River from upland crest (possible trail site)

2.3.2.c - Looking out from Harrington Park

The clearing operation under groupings of existing mature trees (described above see Figures 17 and 18) will improve internal views of the Park and improve views out of the Park to the western agricultural operations. (Figure 24)



Figure 24: View of agricultural fields within Harrington Park and active farming beyond the Park

The view that best illustrates how important it is to protect views looking out from the park is the view of the Wheeler-Harrington House. (Figure 25) looking east.



Figure 25: View looking east towards the Wheeler-Harrington House. Note: the privacy hedge at the residential parking lot does not significantly obscure the view of the House.

The view of Wheeler-Harrington House is lost, though, from the parking lot. The remnant apple orchard that grows between the House and the parking lot of Harrington Park is worthy of preservation maintenance. But it is uncertain whether the clearing out of ground level vegetation or pruning of the trees will open up views from the parking lot to the House (Figure 26).



Figure 26: Managing the grove of apples may not provide views of Wheeler-Harrington House

2.3.2.d - Looking Across the Park

As noted above, clearing vegetation under the existing groves of trees will open up views across the Park, especially viewing west from the residential portion of the parcel.

The windbreak at the residential driveway and parking area obscures an important view - from Harrington Avenue looking east-northeast across Harrington Park to the Wheeler-Harrington House. Clearing some vegetation at the windbreak and raising the canopy of the street trees along Harrington Avenue may be warranted to open up this view across Harrington Park. (Figure 27)



Figure 27: view of Wheeler-Harrington House obscured by vegetation

2.3.3 Management Recommendations for Harrington Park

- a. Open up views of the Wheeler Harrington House from Harrington Avenue eastbound.
- b. Make the driveway entrance into Harrington Park more prominent and visible.
- c. Install way-finding signage as discussed in Recommendation 1.
- d. Remove understory shrubbery and weeds in all locations described in this Section.

- e. After removing the understory weed growth directly south of the existing parking area, evaluate whether automobiles are visible in the parking lot from Harrington Ave. The existing landform contours may be high enough between parking area and the Avenue to screen the critical sight lines even with the vegetation removed.
- f. If sight lines cannot be adequately improved by removing the understory shrubbery and weeds then consider relocating the parking area to be closer to the Harrington Avenue.
- g. Prune and maintain the remnant apple orchard grove of trees
- h. Determine the feasibility of creating an upland path system at the top of the slope. There may be opportunities to connect a new trail system at the crest of the hill with a trail loop that extends westward to the bridge crossing of the Assabet.

2.4 Harrington Park – the Riverfront Area

Please refer to the Environmental Assessment prepared by TRC Environmental Corporation for a description of water resources, vegetative communities and wildlife, geology and soils, recreational uses, regulatory assessment and related recommendations, references and attachments.

The following cultural and landform discussion supplements the TRC findings and are largely based on conversations and the property tour with Peter and Jane Benes on September 16, 2014.

2.4.1 Recreational Uses on the Assabet River at Harrington Park:

2.4.1.a - Boating on the Assabet

The riverfront area of Harrington Park had been used as a canoe launch in past years. Use of the Assabet River for canoeing and kayaking has fallen off over the past several decades as river current has undercut the riverbank and trees have fallen into the river channel (Figures 28, 29, 30). Should the Town consider establishing a canoe launch along this reach of the Assabet River, a careful review of regulations at Federal, State and Local levels will be required. At this point along the south bank of the Assabet, the deeply cut banks and debris in the River may make this section of the River hazardous for canoe and kayak use.

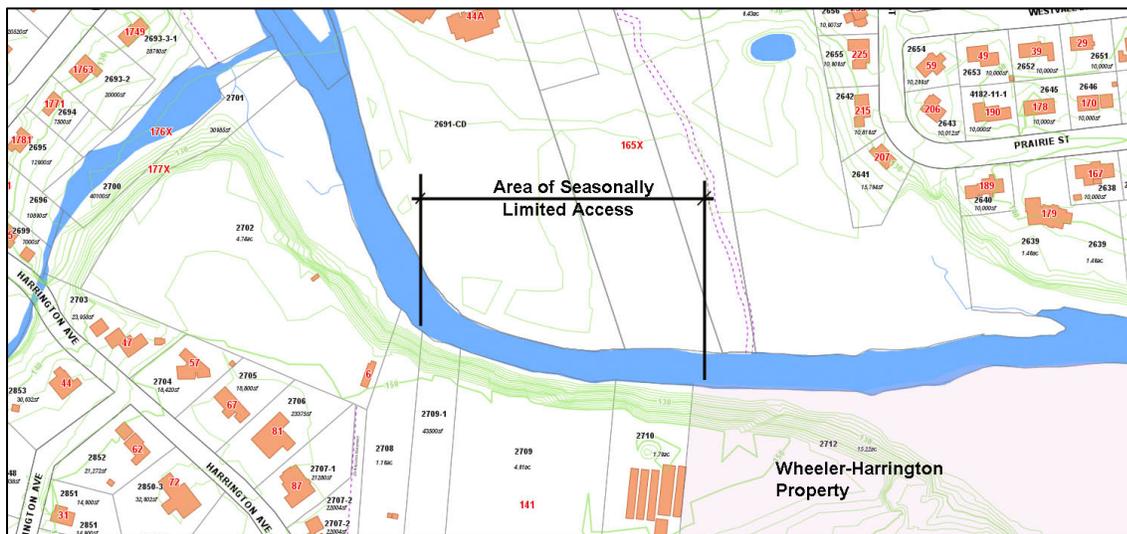


Figure 28, 29 & 30: fallen trees and undercut bank on the Assabet River

2.4.1.b - Riverfront Trails

As discussed previously, access to the Harrington Park landscape along the Assabet River is by way of dirt path that traverses the slope from the meadow area of the Park down into the riverfront area. In the riverfront area, a short circuit of mown trails provides a limited tour of the riverfront, with views of the Assabet and exposure to the wetland-upland vegetation mosaic (see Section 3.0 Vegetative Communities and Wildlife, TRC Environmental Assessment).

A trail extends eastward toward the adjacent private house lots but becomes little more than a wildlife trace as it peters out from seasonal inundation, lack of use and infrequent maintenance. While easements for trail expansion from Harrington Park westward have been secured, the opportunities for building a pedestrian trail system along the south bank of the Assabet River may be seasonally limited by topography and high water (Map 03).



Map 03: Area of potential seasonal and topographic limits to Trail Access

In spite of the possibility of access being limited by high water, access into the riverfront area would provide seasonal interest for viewing the Assabet River and experiencing the wetland habits along the River (Figures 31, 32 and 33).



Figure 31: View west up the Assabet. Steep slope on left. Natural riverfront levy on right.



Figure 32: Upland / Wetland Mosaic along the Assabet



Figure 33: View of Assabet River from existing trail. Note Harrington Rock, located on Figure 13

2.4.2 Pasturage

Mr. Benes reported that the previous owner, Ralph LeBallister, used the riverfront area to pasture horses. The hand pump and barrel are remnants of that equine husbandry (Figures 34 and 35).



Figures 34 & 35: Hand pump in riverfront area

2.4.3 Harrington Spring

Using the 1852 and 1856 Walling maps of Concord, Herbert Wendell Gleason (1855 – 1937) prepared a map of places in Concord that are mentioned in Henry D. Thoreau journals and writings. The map, titled Map of Concord, Mass. Showing Localities mentioned by Thoreau in his Journals (Map 04), was compiled by Gleason and dated 1906. Gleason's 1906 map identifies Harrington Spring (No. 52 on the following enlargement).



Map 04: Excerpt from Map of Concord, Mass. Showing Localities mentioned by Thoreau in his Journals by H. W. Gleason 1906

Peter Benes (From interview on 2014-09-16) believes the Harrington Spring was located in the wetland area immediately east of the open lawn and off Harrington Avenue a stone's throw. When inspected with Mr. Benes, this area of wetland exhibited clear signs of historic earth moving that may have been at the source of the spring. H. D. Thoreau made several references to the Harrington property and its water features in his journals. (Bold added). There is no way

to be certain whether these references are to the spring or other water features of the Harrington property.

*“Standing by **Harrington’s pond-hole** in the swamp, which had skimmed over, we saw that there were many holes through the thin black ice, of various sizes, from a few inches to more than a foot in diameter, all of which were perfectly circular.”* Entry on November 18, 1851 in *The Writings of Henry David Thoreau Journal*, Edited by Bradford Torrey III, September 16, 1851 – April 30, 1852, Page 125; Houghton Mifflin 1906

*“Went to **Harrington Bathing-Place**. Drank the Tarbell Spring first.”* Entry on June 14, 1853 in *The Writings of Henry David Thoreau*, Volume 10, Page 248; Houghton, Mifflin 1893

*“An abundance of pure white fringed polygalas, very delicate, by the path at **Harrington’s mud-hole**.”* Entry on May 23, 1853 in *The Writings of Henry David Thoreau*, Volume 10; Page 187; Houghton, Mifflin 1893

*“C. says his dog chased a woodchuck yesterday, and it climbed up into an oak and sat on a limb ten or twelve feet high. He killed a young rabbit. Took another bath at the cove in White Pond. We had already bathed in the **North River at Harrington’s**.”* Entry on June 14, 1853 in *The Writings of Henry David Thoreau*, Volume 10; Page 250; Houghton, Mifflin 1893

*“**Hypnum riparium** in the **Harrington trough**. *Viola pendata* again. *Uva-ursi* berries reddened, but R. says not ripe or soft till spring. Saw the *variolaria* on the white pines on Harrington Road, and *opegrapha*, like Arab characters.”* Entry on August 16, 1854 in *The Writings of Henry David Thoreau Journal*, Edited by Bradford Torrey VI, December 1, 1853 – August 31, 1854, Page 448; Houghton Mifflin 1906

*“Small grasshoppers very abundant in some dry grass. I find the *lygodium*, a late fern, now from a foot to eighteen inches high and not yet flower-budded on the leaves fully expanded. *Platanthera flava* at **Harrington Bathing-Place**, possibly yesterday, - an unimportant yellowish-green spike of flowers.”* Entry on June 18, 1854 in *The Writings of Henry David Thoreau Journal*, Edited by Bradford Torrey VI, December 1, 1853 – August 31, 1854, Page 370; Houghton Mifflin 1906

Peter Benes indicated the Harrington Spring feeds a small stream that flows to the Assabet River on the Harrington Park riverfront. The stream channel intersects the eastward trail and flows through a corrugated steel pipe (Figures 36 and 37).



Figures 36 and 37: The culvert from Harrington Spring on the riverfront trail easterly from Wheeler-Harrington

2.4.4 Management Recommendations:

- a. Better define the trail system within the riverfront area.
- b. Ascertain whether terrain and seasonal high water would limit establishing a public access trail along the south bank of the Assabet River. Connect the riverfront trail system of Harrington Park to adjacent Town-owned parcels to the west.
- c. As part of the trail system, explore the possibility of creating an interconnected upland ridge trail that runs from Harrington Park westward along the top of the slope.
- d. Carry the wayfinding system down into the riverfront area. Create interpretive signage displays that highlight the environmental and historical qualities of the riverfront section of Harrington Park.
- e. Do nothing to alter the landscape in the general area of Harrington Spring. Springs are fragile and dynamic water features. Clearing and renovation of the spring would require extensive permitting under the Wetlands Protection Act. Once cleared the spring would then be subject to public access and casual trespass.

2.5 The Residential Landscape

Peter and Jane Benes have established a private and protected garden landscape around the Wheeler-Harrington House. Ornamental perennials, groundcover, flowering trees and shrubbery are neatly and artfully arranged around the perimeter of the House. A series of beds, lawn panels and walking allées create a series of intimate and colorful spaces.

2.5.1 The West Garden

The principle area of bedding and ornamental flowering plants is on the west side of the House (Figure 38).



Figure 38: Cutting Garden west of the House

Pedestrian access from parking area to the garden is through a garden arch. This diminutive entrance is an effective privacy threshold, suggesting the house is not to be approached unannounced. The loose, deciduous and evergreen hedge at the edge of the parking area

screens the domicile and residential landscape. The hedge is a polite barrier to an inquisitive public that might mistake the Benes' private drive for the access route to Harrington Park.

See Figure 43, Harrington House 1937. This photograph shows an open landscape between house and parking area in the early half of the last century.



Figure 39: Privacy Hedge at Residential Parking



Figure 40: Residential Privacy Threshold

The Historic Structures Assessment addresses landscape conditions at the base of the west façade. The Assessment recommends adjusting the local grade at the base of the west elevation of the House to create a swale four feet out from the foundation. Regrading the landform to ensure a swaled diversion of stormwater away from the west façade would be disruptive of the west gardens and landform overall. See recommendations.

2.5.2 The South Façade and Landscape:

The front façade of the House is obscured by a lilac hedge bedded with a groundcover of *Vinca minor* and edged with a row of rounded stones. The grassed verge between hedge and clapboard face of the House is narrow. Peter Benes has constructed a simple, stone-lined wooden trough to serve as a ground-based gutter to collect roof runoff. Prior to the construction of the rain trough, the roof runoff infiltrated into the basement and caused some degree of basement flooding and damage to wooden sills. (See Historic Structure Assessment)

The stone border is a late 20th century replacement for the stone wall shown in historic photographs of the house from 1916 and 1937 (See Figures 44 and 48). The lilac hedge is not historic.



Figure 41: South Façade & Lilac Hedge Figure 42: Vinca Groundcover and Boulder Edge

Common lilacs hide this exceptional House, screening the full view of the House from Harrington Avenue. Between the lilac hedge and Harrington Avenue stand two Colorado blue spruce, *Picea pungens glauca*, that have grown to significant heights and tower over the House. These non-native evergreen trees have reached maturity and appear to be in decline.

These two spruce were planted in the mid-1930s, as indicated in the historic photograph, Figure 43. In light of their age and proximity to the House, these two trees should be considered hazards. The potential for wind throw and damage to the wood frame structure of the Wheeler-Harrington House is significant.



Figure 43: Harrington House, 1937; photograph by George Shepard, from the Ruth Wheeler House File. Courtesy of William, Munroe Special Collections, Concord Free Public Library.



Figures 44 and 45: Obscured South Façade of the Wheeler-Harrington House.

2.5.3 The East Façade and Landscape

The prominence of the Wheeler-Harrington House on the sandy bluff above the floodplain of the Assabet river is nowhere more noticeable than from the east side of the house. The hill falls away from the house as steeply as anywhere else on the property. Whereas the rest of the steep slope is wooded, here it is open and fully exposed to sunlight.

During the clement months of 2014, Peter Benes planted raspberries (*Rubus* varieties) to stabilize this steep, open slope. These shrubs will grow to form an impenetrable, chest-height groundcover.



Figure 46: Looking down the slope on East Side of House from ground level.

Various ornamental and fruit bearing trees, shrubbery and vines have been planted on the east side of the house from the raspberry patch southward to Harrington Avenue.

2.5.4 The North Yard and Outbuildings

The most utilitarian landscape of the private residence, the north yard is bounded on all sides by a rich and varied ornamental edge of flowering trees, shrubbery and ornamental perennials

(Figure 47). The open turf yard covers the existing septic tank, distribution box and leaching field, installed in 1975 when the farmhouse septic and heating systems were brought up to code and the House was connected to town water. (See Wheeler-Harrington House Building Chronology, Appendix 1)

The outbuildings are contemporary, roughly built, service structures that house Peter Benes' yard equipment and supplies. Peter acknowledges the shed outbuildings were constructed as temporary structures and should be replaced with a barn structure.

The north yard is bounded to the east and north by the steep slope of the hillside. Vehicle access may be somewhat circuitous but suitably obscure to prevent trespass.



Figure 47: North Yard

2.5.5 Management Recommendations for the Residential Landscape

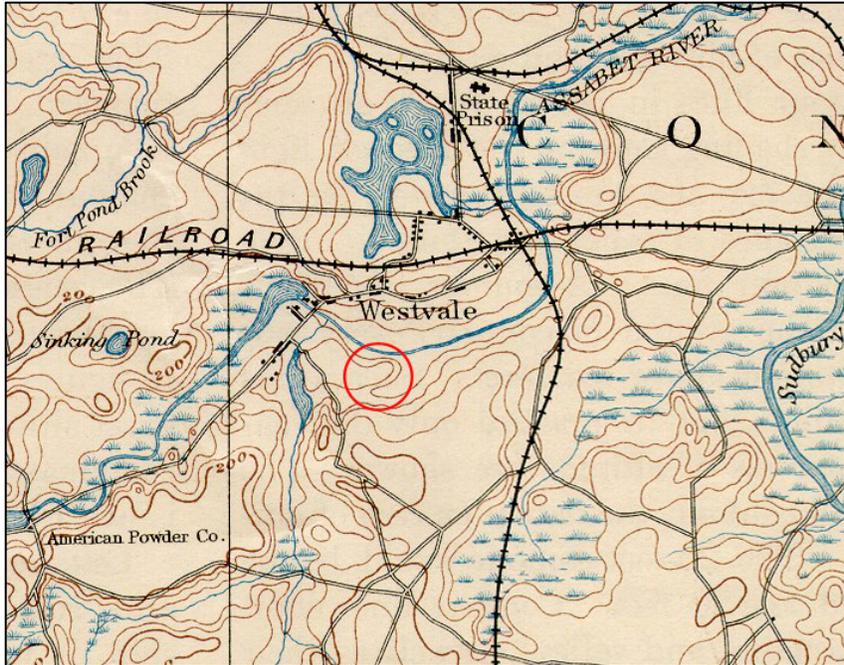
- a. West Garden:
 - i. Secure the services of a design consultant to address stormwater management issues raised by the Historic Structures Assessment and in this Existing Conditions Report. Develop a construction contract to create a French drain along the west elevation of the House that carries stormwater southward by HDPE piping and connects to the drainage system at the south façade landscape.
- b. South Façade and Landscape:
 - i. Remove and discard the two large Colorado blue spruce immediately. These are hazard trees and pose a serious danger to the House. Consider replacing these trees with either Princeton Elms or Valley Forge Elms, both American elm varieties that have shown strong disease resistance and echo the large elm seed in the Gleason photograph (Figure 43).
 - ii. Remove and discard the lilac hedge and Vinca minor groundcover.
 - iii. Remove the stone filled wood troughs that collect roof runoff. Replace with a flush French drain system, an excavated, stone lined and covered drainage trench with perforated pipe that connects to drywells set back from the south façade of the

- building. Coordinate with Historic Structures Assessment for connection of the downspout from the entry hood over the front door.
- iv. Remove the rounded stone border and replace with a dry laid, free standing field stone wall, similar to the stone wall shown in the 1916 and 1937 photographs (Figures 43 and 48). The foundation for the dry laid stone wall should be a deep and broad bed of 3/4-inch crushed stone (ASTM C33 No. 57 stone), which can serve the dual purpose of foundation and drywell from roof runoff collected by the French drain and for the isolated low point serving the west façade.
- c. East Façade and Landscape:
 - i. Monitor the open slope and ensure the raspberry plantings fully root and establish slope protection against erosion.
 - d. North Yard and Outbuildings:
 - i. Locate and inspect the septic system, including the location of the soil pipe from the House, the location of the septic tank and distribution box(s) and the drain tile. Verify conditions of the septic system, whether it meets current Massachusetts Title 5 requirements. Determine bedroom capacity of the existing system.
 - ii. Install a French drain along the north façade of the House and either connect it to the system on the west and south sides of the House or day light the drain on the east slope of the property.
 - iii. As a long-term goal for the property, eliminate the existing outbuildings before they degrade to the point of becoming hazardous. Replace with a barn of either historic vintage or a replica of a 18th or 19th century barn. Locate the barn between the existing and historic orchard of old apple trees and the parking area of the house. Situate in such a way that views westward to the open fields of Harrington Park are not obscured by the barn. Situate to ensure a full turning radius for a passenger vehicle at the top of the residential driveway and parking area. Accommodate the K-turning movements of a delivery truck. Maintain vehicle access route to the rear north yard of the Wheeler-Harrington House.

2.6 Roadways, Driveways and Parking Lots

2.6.1 Historic Harrington Avenue

Today, the Wheeler-Harrington House is set well back from Harrington Avenue. The 19th century maps of Concord (Appendix 2) illustrate the evolving nature of the road. The 1832 map shows the road as a dotted line, insinuating the track may have been but a private farm road terminating at the J. Harrington house. The road is represented as a solid line in the 1852 map, but continues no further than the J. Harrington house. The 1870 map shows dashed lines connecting the established farm road from J. Harrington house westward to the bridge crossing of the Assabet River in Westvale. The USGS Map of 1894 (Map 05) indicates established roads throughout the Town of Concord but does not show the Harrington farm road at all, suggesting the track south of the Assabet River was not a significant roadway feature in the 19th century landscape. (Harrington property shown circled)



Map 05: 1894 USGS Map of Westvale, showing the historic southern road.

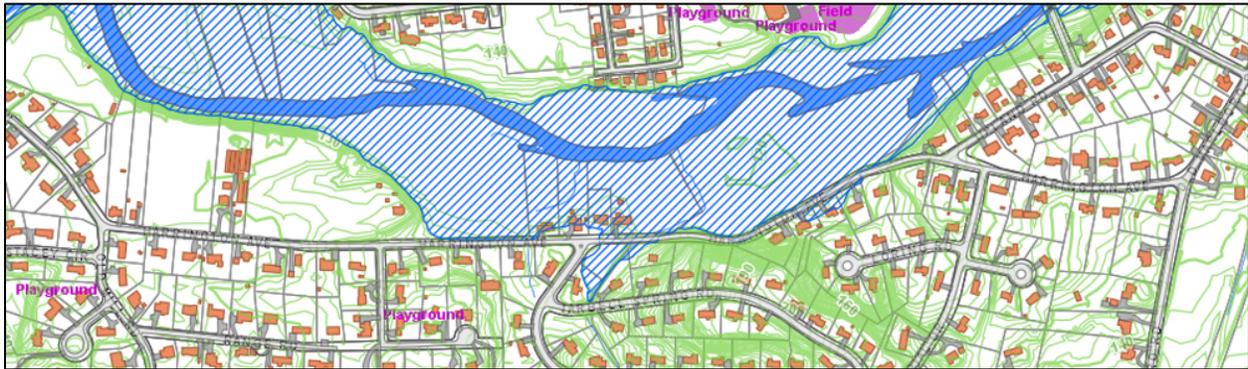
Figure 48, a 1916 photograph of the House and south hillside shows what appears to be an unpaved dirt track at the bottom of the slope.



Figure 48: Historic Harrington Avenue; Elms at Harrington's, Concord; 1916 photograph by Herbert Wendell Gleason, from the Robbins-Mills Collection of Gleason Negatives. Courtesy William Munroe Special Collections, Concord Free Public Library.

The historic alignment of the Harrington farm road cannot be accurately known from the historic maps. It can be asserted with some confidence that human and animal nature would

have selected a roadway alignment on the easiest path of travel. Current Concord MA GIS mapping of Harrington Avenue plots the alignment of the roadbed from Old Marlboro Road west to Main Street. Harrington Avenue is set between the floodplain of the Assabet River and the north-facing hillside below Tarbell Spring Road. This layout would have avoided the steep cross slope of the hillside and the wetland soils of the floodplain, both significant considerations for any kind of vehicular traffic.



Map 06: Concord MA GIS. Density of green contours indicates steepness of hillside slopes

2.6.2 The Driveway

The layout of the existing stone driveway may be as old as the Wheeler Harrington House foundation. The layout runs diagonally up the hillside, a sensible alignment that avoids a steep climb in icy conditions (Figure 49). The bottom of the drive is relatively level, allowing a horse-drawn carriage, wagon or sleigh to build up momentum to carry the conveyance upward through the steeper curve at the top of the drive. Conversely, the shallow bottom of the drive would give the horse and driver a suitable space for braking before moving out onto the farm road.



Figure 49: Concord MA GIS. Showing Google Maps photograph, 2-foot contours and the floodplain.

Through decades of use, the driveway has become etched into the landform. The 2-foot contours on Figure 39 illustrate the dished cross section of the driveway. This is a two-track drive, where the untraveled center of the travel way sports a modest growth of weed and forb species.

Volunteer trees and shrubbery flank the north edge of the drive at the bottom of the south lawn of the House. These trees and shrubs are invading weed species that obscure the view of the Wheeler-Harrington House from the road. On the south side of the drive is a volunteer black cherry tree surrounded by a scruffy accumulation of volunteer shrubbery.



Figure 50: Wheeler-Harrington House residential drive. Harrington Avenue looking west is on the left.

As the driveway turns uphill an evergreen hedgerow has been planted to the west and serves as a windbreak (Figures 50 and 51). Peter and Jane Benes have been attempting to manage snowfall on the drive for over 20 years and have found the location of the evergreen windbreak to be an effective management tool against snow fall drifting over the driveway. Nonetheless, Peter Benes has a tractor-mounted snow blower to clear snow from the driveway.



Figure 51: Driveway with evergreen windbreak on right

The stone surfacing of the drive is an attractive, rounded stone.

The driveway is an historic landscape feature that quietly attests to centuries of use. Its horizontal and vertical layout, its stone surfacing and wheel tracks are as much a record of landscape use as any other cultural feature on the property.

As significant as the driveway is as a feature of the cultural landscape, it is subject to annual erosion. During rain events, stormwater flows down the driveway from the parking area at top as well as from the hillside below the House. Saturated soil conditions and vehicle use cause erosion and displacement of the stone surfacing. Many years ago Peter Benes dug up the driveway surface and set large stones into place to serve as a hardened foundation against continued deep cut erosion. But each spring, Peter Benes repairs the surficial erosion that has occurred over the preceding winter. Management of stormwater on the driveway should be considered.

2.6.3 Residential Parking

At the top of the residential driveway is a small parking area (Figure 52). As previously mentioned, the House and its garden landscape are screened from this parking area by an informal massing of evergreen and deciduous trees and shrubbery (Figure 52). Access to the private residence and gardens is through a narrow arched threshold. In its entirety, the hedgerow and the garden threshold maintain the privacy of the historic building and the Benes.



Figure 52: View from 2nd story of House



Figure 53: Jane and Peter Benes at garden threshold (2014-09-16)

The parking area is open to the views of the farm meadow immediately to the west. Access to the north yard of the House is from the northwest corner of this parking area, suitably obscured and private designed to stop casual trespass.

2.6.4 Harrington Avenue Streetscape below the House

The sight line down Harrington Avenue to the east from the driveway throat is open. The large silver maple at the corner of the lawn (Figures 54 & 55) is a hazard tree. It has a large, heavy limb that stretches out over the roadway. It shows signs of internal decay throughout its principle stems and limbs. It is a risk to public health and safety.



Figures 54: Sight Line Harrington Ave eastward



Figure 55: Hazard Tree

2.6.5 Harrington Avenue Streetscape at Harrington Park

The streetscape westward from the residential drive is obscured by the volunteer shrub species that grow around the black cherry (Figure 56). Beyond the residential driveway and the evergreen windbreak the streetscape opens up. A series of street trees line Harrington Avenue up to the driveway entrance to Harrington Park (Figure 27).



Figure 56: Obscured sight lines west of driveway



Figure 57: Street Trees on Harrington Ave

2.6.6 The Harrington Park Sign

The Harrington Park Sign was located towards the center of the Harrington Avenue frontage, well away from the Park entrance drive. In November 2014 it was moved westward, closer to the Park driveway. The park sign in the photograph below likely dates to the time of title transfer in the mid-1970s. Having the sign located so close to the Wheeler-Harrington House contributes to the public's confusion that results in park visitors driving up the Wheeler-Harrington House driveway and parking in the private, residential parking area. (See Figure 58)



Figure 58: Harrington Park sign close set to the Wheeler-Harrington House. Circa 1973

2.6.7 Management Recommendations

- a. When the next caretaker tenant is selected, remove the hedgerow separating the residential parking lot from the House. Retain the flower and vegetable gardens on the west façade of the House.
- b. Evergreen hedgerow installed to control snow drifting: determine how to remove plant material from this hedgerow to open up a view of the House from Harrington Avenue without significant compromise to the issues of managing snow removal.
- c. Secure the services of a design consultant to evaluate stormwater runoff from the parking area and develop recommendations to intercept stormwater from the parking area before it can run down the driveway where it will cause erosion of the driveway surfaces. Include protecting the historic qualities of the driveway landform, materials and layout as an essential aspect of the design contract.
- d. Immediately remove the hazard tree overhanging Harrington Avenue at the southeast corner of the front lawn. Replace with a new shade tree pulled back slightly from the edge of the roadway. See street trees below Harrington Park for appropriate setback.
- e. Immediately remove the volunteer shrub species that grow around the black cherry tree. Evaluate sight lines to verify a clear view to the west from the driveway throat.

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APPENDIX 1

Wheeler-Harrington House Chronology

DATE	ACTIVITY	SOURCE
Ca. 1740s	Original house constructed (central chimney stack and considerable portion of old frame extant at core of current structure). Original farm was 100+ acres	National Register nomination (2013)
1768	House and barn cited in Josiah Wheeler's will: "now Dwelling house and Barn"	Josiah Wheeler's will
1826-27	Major rebuilding that lent house its current form and appearance. Roof, parts of framing, and most architectural details replaced. Number of old timbers relocated throughout building. Hearths replaced and fireplaces rebuilt. 6 over 9 window centered under north gable peak at inner ell dates to this renovation and is earliest in house	National Register nomination (2013) SPNEA Historic Structure Report (1980)
1827	"New barn" noted in town assessor's records	National Register nomination (2013)
1840-41	Northeast ell and small shed (pump/sink room) added. Greek Revival sidelights installed at center entry	National Register nomination (2013)
Ca. 1840	Stone-lined well installed	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1840, 1853	Joseph Harrington added several acres to southwest end of farm	National Register nomination (2013)
Mid 19 th c.	All but one interior paneled doors installed. (One interior door is earlier Federal period and may have been former front door)	National Register nomination (2013)
Mid 19 th c.	Early pantry at northeast part of east room/kitchen removed – partition walls removed and repairs made to floor	National Register nomination (2013)
1870s-80s	Italianate paneled center door and door hood installed	National Register nomination (2013)
Late 19 th /Early 20 th c.	2/2 sash installed in windows at front and gable-end elevations	National Register nomination (2013)
Late 19 th /Early 20 th c.	Shed-roof porch installed along east wall at first story	National Register nomination (2013)
1908	New brick mantel and closet constructed in southeast room and bake oven to right of firebox removed. Closet deepened in southwest room	SPNEA Historic Structure Report (1980)
1913	Owner Waldo Lapham divided land into 34 lots on both sides of today's Harrington Avenue. Wheeler-Harrington Farmstead (Lot #32, 6.33 acres) and Lot #33 (5.25 acres) to its east purchased by Edgar L. Willard	National Register nomination (2013)
1913 - 1924	Electricity and plumbing installed. Gould pump set up in cellar against ell's rear foundation wall to supply kitchen and new bathroom in rear ell. Septic system installed on hill east of the small ell.	National Register nomination (2013) Peter Benes
1924 - 1974	Owner Ralph LeBallister bought back some of the lots Lapham had divided out of old farm, inc. some south of Harrington Ave., part of Lot #30 on the north, and Lot #31 to the west	National Register nomination (2013)

DATE	ACTIVITY	SOURCE
20 th c.	Plaster ceilings and beam casings of two first-story rooms removed	National Register nomination (2013)
20 th c.	Fireplace surround in parlor removed	National Register nomination (2013)
20 th c.	Doorway created into small northeast chamber (over kitchen ell) from main east chamber	National Register nomination (2013)
1930s	Chimney top completely rebuilt above the roof line; four flues reduced to two	SPNEA Historic Structure Report (1980)
1937	Dwelling reroofed	Town Building Dept. Records (building permit)
1930s	Pair of large spruce trees probably planted on the site of the two "Harrington Elms" Note: Shepard photo shows them in 1930s	National Register nomination (2013)
1930s-40s	Pasture and watering hole for horses installed	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1945	Building relocated for garage	Town Building Dept. Records (building permit)
Mid 20 th c.	6/6 windows with flat casings replaced earlier windows at east chamber. East 2 nd floor chamber ceiling replaced with fiberboard	National Register nomination (2013) SPNEA Historic Structure Report (1980)
1960s	Long shed-roofed addition across back of house containing kitchen, bathroom and utility room replaced a lean-to and attached lines of sheds that extended west toward freestanding barn. Hot-air heating system installed with furnace in new addition. 19 th c. barn (seen on town surveys as late as 1913) replaced with smaller horse stable	National Register nomination (2013)
1964	Addition to barn	Town Building Dept. Records (building permit)
1973	Property put up for sale and remaining Lapham lots on south side of Harrington Avenue acquired by real estate developers	National Register nomination (2013)
1974	Property (15.6 acres inc. farmhouse) purchased from the LeBallisters by the Town	National Register nomination (2013)
1974-75	Four mid-20 th c. outbuildings (small horse stable, open-sided horse shelter, two sheds) demolished	National Register nomination (2013)
1975	Shed attached to west side of house removed	Town Building Dept. Records
1975	Farmhouse stabilized and brought up to code. New septic and heating systems, connection to town water line, house repainted, new roof installed, windows repaired/reglazed, new wiring and utility systems	National Register nomination (2013) Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1975	Trap door created in kitchen hallway, window in 2 nd story room of [1860] addition closed off, window in cellar closed off. Board in front of fireplace nailed down and fireplace surface plastered	Phebe Ham memo to Forrest Nelson (Oct. 1975)
1975	First tenants, Rob and Becky McCall, moved in	National Register nomination (2013)

DATE	ACTIVITY	SOURCE
Ca. 1975-1982	West parlor fireplace “taken apart” and “reconstructed” by McCalls	Sue Thorstensen to Sara Chase, 1982
Post-1975	Three small outbuildings (tool shed, equipment shed, chicken coop) built north of house and garden	National Register nomination (2013)
1979	New 8’ x 12’ utility outbuilding constructed Note: This is one of the three small outbuildings mentioned above and used at that time as a chicken coop	Town Building Dept. Records
1970s	Low Victorian stone wall in front of house dismantled to prevent water from trapping between wall and house	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1980	SPNEA reports produced (Conditions Assessment and Historic Structure Report)	Historical Commission History (2002)
1982	Sue Thorstensen moved in as tenant. Work performed on landscape, pest control, fire inspections, and driveway repairs. Plastic sheeting attached to house over rotted out portions of sill. Proposal to replace framing timbers over well. West chamber painted. Wood from McCalls’ “reconstruction” of west parlor fireplace removed and discarded	Historical Commission History (2002) Letter from Sara Chase to Sue Thorstensen, Feb. 23, 1982; S. Thorstensen communication to Benes
1983	Kitchen linoleum floor replaced by volunteers. Drainage plan proposal by Carol Dwyer. Peter and Jane Benes moved in as tenants	Lou Hills and Bill Sullivan communication to Benes. Carol Dwyer to Renee Garrellick, July 6, 1983. Concord Historical Commission Chronology (Ryan, 3.25.02)
1983	Interior repairs: floors, bathrooms, ceilings, painting, plastering, and insulation. Front hall ceiling repaired and painted, base plate made for kitchen hallway light fixture, insert for large ell stove pipe opening made, storm windows reglazed, storm doors made from discarded doors in cellar and installed, cellar windows rebuilt and reglazed, doors weatherproofed. Front-door frame repaired and tightened. New well cover built. Foundation stones repaired and re-insulated, large stones piled against rotting sill on south side removed and used in making stonewall along south and west side of house, 2 truckloads of debris and concrete rubble removed from cellar and foundation. Proposal to replace sill and address water-damaged joists and timbers	Historical Commission History (2002) Addendum A, Peter Benes (2004) Peter Benes
1983	Timberframe Co. performed following repairs: Replaced south sill. In the cellar reestablished structural integrity of 12’ x 14’ ell above well - original structure left in place and secondary structure constructed beside and under existing structure. New corner posts installed. 1826 Liberty Head penny found on south sill. Lower south side clapboards and cornerboards replaced. Front walkway regraded. Foundation along west side exposed and trench dug for drainage. North side foundation graded. Protective shield for access window to cellar made. Stumps removed. Trash removed from visible garbage dump on east hill. Woodstove and stove base	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989) Town Building Dept. Records (building permit) Timberframe Co. proposal (8.18.82) Peter Benes

DATE	ACTIVITY	SOURCE
	installed in west parlor and inspected by Fire Dept. Fireplaces, chimneys, and electricals inspected. Main electrical panel board replaced by town electrician; additional fire extinguishers installed	
1983, 1985	Installed new clapboards on outer ell and south side, new baseboards in both locations, and exposed/repared baseboard on west side. Rebuilt ell window inside and out. Stabilized treads on front stairs	Addendum A. Peter Benes (2004)
1983, 1989, 1995	Waterproofed chimney to roof joint	Addendum A. Peter Benes (2004)
1983-2008	Annual maintenance of hot water and oil burner heating units	Peter Benes
1983-2012	Blueberries planted. Dead trees cut up and taken to town composting site	Peter Benes
1983-2013	Repaired/re-nailed clapboards as necessary prior to painting house and ells. Removed rot, prepped, scraped, sanded, and painted one side yearly on revolving schedule every four years through 2011. Entire house done 2012-2013. Exterior doors painted on same schedule. Continuous work removing rot, rebuilding, repairing, and repainting storm windows, 2/2 windows, and 1826 window surrounds. Hardware in doors periodically removed and refurbished in 8 interior doors. Storm and screen doors refurbished every two years and painted. Dirt access road graded and holes filled in with stones. Gardens made, planted, and maintained around house; invasives cleared from around house and adjacent areas of park; raspberries planted and maintained; trash removed from lower field. Artifacts found around house collected and stored in cellar	Addendum A. Peter Benes (2004) Peter Benes
1984	Hot water heater replaced. Chimney liners, rain cap, and heat shield installed for wood stove	Historical Commission History (2002) Peter Benes
1984	Regraded foundation along south side. Repaired/reattached 18 th /early 19 th c. window surrounds– two window surrounds on west side and four on south side on first floor and attic level. Rebuilt three windows and surrounds in cellar. Rebuilt exterior front door jamb and door surrounds. Added plexiglass insulator strips on front door windows. Removed rotten wood, rebuilt and covered front entry porch with asphalt shingling; waterproofed joint at clapboards. Repaired and painted shutters. Fabricated and installed grainpainted fireboards (circa 1830 style) to prevent heat loss in north and south chambers and east room (old kitchen); wood panel constructed, painted, and installed in wall above door between front hallway to east parlor; front hall floor and stairs, skirtboard, and banister painted; walls, doors, floor, and window in hall between northwest and southeast chambers painted; west parlor painted; shutters repaired and painted	Addendum A. Peter Benes (2004) Peter Benes
1985	Removed portions of paint from door to small ell to expose graining. Replaced outer doorjamb in smaller ell. Waterproofed and rebuilt flashing to larger ell; kitchen door	Addendum A. Peter Benes (2004) Peter Benes

DATE	ACTIVITY	SOURCE
	and cabinets and kitchen hallway shelves and walls painted; doors and wall in front hall painted; back stairwell walls, skirtboards, and stairs painted; windows in southeast room painted. Ceramic tile in bathroom regROUTED	
1985	Walls repaired where water had infiltrated. Shed bolstered "before it collapsed." Small ell roof shingled. Rot removed and east porch floor and columns repaired and painted	Historical Commission History (2002) Peter Benes
1986	Small ell sill replaced by Timberframe Company. Exterior door and screen door to small ell planed and rehUNG, front porch roof waterproofed and shingled. Large plaster section missing in small ell repaired, large plaster section in west parlor from former heat duct repaired, 20 th -century wallpaper from below chair rail in west parlor removed and sealer applied. Doors, trim, and walls in west parlor painted	1986 Town Report Peter Benes
1986	Removed rot from east door leading to porch, rebuilt surrounds and re-hung door. Waterproofed and rebuilt flashing to smaller ell. Installed stairs handrail into cellar, rot removed and lower clapboards of small ell replaced and painted, cellar window on east side rebuilt from fragments found under porch and screen inset made. Porch floor sealed, 4 pairs shutters repaired and painted	Addendum A. Peter Benes (2004) Peter Benes
1986-2004	Assembled 75 linear feet of rock walls at front and northwest side of house and area behind smaller ell	Addendum A. Peter Benes (2004)
1986-2013	Trees along driveway planted as windbreak and erosion control; extensive numbers and varieties of fruit, fir, and nut trees planted as well as bulbs and flowering shrubs and bushes	Peter Benes
1987	Small ell reroofed.	Historical Commission History (2002) Peter Benes
1987	Exterior painted, kitchen entry door sills-rebuilt, window and door surrounds rebuilt, front steps repaired, storm windows repainted, shutters repainted. Bathroom walls, trim, window, and ceiling painted; woodwork of large ell painted; window surrounds in small ell rebuilt	1987 Town Report Addendum A. Peter Benes (2004)
1988	Shutters repainted; southeast parlor window surrounds and windows repaired and painted. Electrical repairs to cellar, hall, and 2 nd floor rooms	Peter Benes
1989	Storm windows repaired and painted, west parlor trim and windows repaired and painted, east porch floor waterproofed. Remaining shutters repaired, painted, and all shutters stored in cellar	Peter Benes
1987-1997	Re-nailed boards and waterproofed east side porch five times	Addendum A. Peter Benes (2004)
1990	Fabricated/installed two storm windows for attic. Reshingled roof of outer ell. Covered front entry porch with asphalt shingling and waterproofed joint at clapboards. Fabricated planing tool to restore all ground-floor window-keepers	Addendum A. Peter Benes (2004)
1990	New water heater installed; electric cooktop replaced	Concord Historical Commission Chronology

DATE	ACTIVITY	SOURCE
		(Ryan, 3.25.02) Peter Benes
1991	Repaired underside of east porch roof after damage by nearby lightning strike and added underside support. Front hall floor, stairs, skirtboard, and banister painted; kitchen door painted.	Addendum A. Peter Benes (2004) Town Building Dept. Records Peter Benes
1991-1995 1996-2013	Septic tank pumped out annually Septic tank pumped out every two years	Peter Benes
1992	Removed and rebuilt lower window frame in east room; back stairs, skirtboard, and door painted; stairway surrounds to stairwell painted; entryway to small northeast chamber painted; small ell roof waterproofed	Addendum A. Peter Benes (2004) Peter Benes
1993	Rebuilt storm window on 2 nd floor west side; bathroom walls, trim, and ceiling painted; ceramic tile in bathroom repointed	Addendum A. Peter Benes (2004) Peter Benes
1994	Installed wooden covers for heating units in hallway and eastern room, rot removed and lower clapboards from north side of house replaced and painted	Addendum A. Peter Benes (2004) Peter Benes
1995	Stone-filled wooden ground gutters constructed and laid along south side of house, two PVC drainage pipes attached to ground gutters and sunk below south lilacs to drain into south hill, gully on south edge of driveway filled with large stones. New bathroom sink and mirror installed	Peter Benes
1996	Removed insect infestation and rotted portion of north side and extensively repaired and replaced exterior clapboards, selectively replaced 1960s kitchen sill.	Addendum A. Peter Benes (2004) Peter Benes
1997	Added four inches to roofline of outer ell to prevent water damage to sill. Covered front entry porch with asphalt shingling and waterproofed joint at clapboards.	Addendum A. Peter Benes (2004)
1998	Installed kitchen gutter and downpipe and buried escapement for excess water to downhill drain, new woodstove in west parlor installed, chimney and woodstove pipe cleaned. Grape arbor planted, flowering quince and bridal wreath spirea bushes relocated from west garden to east side of south hill	Addendum A. Peter Benes (2004) Peter Benes
1999	Rebuilt cap and installed copper flashing on attic window, east side. Replaced rotted wood in one corner of east porch foundation, removed and replaced insect-damaged wood and rot from south porch and porch columns, repaired and painted porch ceiling, removed and rebuilt rotted portion on eastside sill at porch juncture, and replaced copper flashing. Installed electric heating cables above kitchen gutter; front hall doors, walls, floor, stairs, skirtboard, and banister painted; windows in southeast room painted; bathroom walls, trim, door, and ceiling painted; kitchen door and shutters in kitchen hallway painted; walls, trim, doors, floor, and window in 2 nd floor hall painted; back stairwell walls, ceiling, skirtboard, and stairs painted. Cellar dehumidifier installed. Rotted elm tree in park removed by town	Addendum A. Peter Benes (2004) Peter Benes

DATE	ACTIVITY	SOURCE
2001	Entryway from large ell to kitchen hall rebuilt and painted	Peter Benes
2002	Re-hung door from larger ell to smaller ell	Peter Benes
2003	Reconstructed and repaired echinus cornice on west side. Restored and painted west bedroom walls, trim, doors, and ceiling; painted windows and doors in west parlor. Leveled driveway and put down large stones to prevent erosion and small stones to prevent persistent mud sinkholes. New kitchen sink installed, woodstove pipe and chimney cleaned	Addendum A. Peter Benes (2004) Peter Benes
2004	Waterproofed and rebuilt flashing to smaller ell, replaced lower boarding and rotted clapboards on east side house and ell, added section of copper flashing, replaced board running between porch ceiling and east side house, rewaterproofed cap east side attic window. Replaced and painted bottom riser on back stairs, front hall floor and front stairs painted, kitchen door painted, 2 nd floor hallway window and floor painted. Exterior electrical outlets installed on north and east side by town electrician	Addendum A. Peter Benes (2004) Peter Benes
2005-2010	Insulated laundry room. Closed off flue vent in laundry room chimney. Made porch roofs with gutters over kitchen, laundry room and small ell doors for drainage and sill protection. Replaced rotted post and floorboards on east porch and waterproofed floor. Installed gutters over east porch. Replaced fascia on northwest corner of house. Installed catch basin over front porch ceiling. Insulated old bulkhead.	Additions to Tenant's Work Items (2010) Peter Benes
2005	Second echinus cornice on west side replaced; back stairs, skirtboard, and walls painted. Southeast parlor windows on south side painted. Lead paint analysis done by the Lead Lab, Inc., Belmont, MA	Peter Benes
2006	Rot removed and kitchen and small ell door sills replaced, ceramic tile in bathroom regouted, selected bathroom tiles replaced. Front hallway and ceiling painted; front stairwell wall, ceiling, and skirtboard painted. Lean-to roof on small ell added to protect snow blower	Additional Work Completed (2010) Peter Benes
2007	30-year architectural shingles installed on the roof; roof debris from attic and grounds removed; clapboards loosened/disturbed by roofers replaced; laundry room walls, trim, window, and ceiling painted; laundry room shelves installed	Town Building Dept. Records Peter Benes Additional Work Completed (2010)
2008	New ETS heating system installed, cement foundation laid. Woodstove inspected, woodstove pipe and chimney cleaned, oil burning hot water tank removed from laundry room, new electric hot water tank installed in cellar, buried oil tank removed from backyard. Kitchen floor, hallway, and bathroom linoleum replaced. Dryer moved from cellar to laundry room. New bathroom sink installed. Laundry room cement floor sealed. Cedar gutters made, painted, and installed on short ends of east porch roof, north storm window in small ell made and installed. Chimney capped	Town Manager Office Records Peter Benes
2009	West parlor walls and woodwork repaired and painted; front stairs, skirtboard, and banister painted; bathroom walls, trim,	Peter Benes

DATE	ACTIVITY	SOURCE
	and ceiling painted; kitchen door, hallway and shelves painted; cover to cellar access window shingled	
2010	East porch floor repaired and sealed; east and north side clapboards scraped, repaired, and painted; north side gutter repaired; kitchen ceiling and kitchen hallway ceiling painted; southeast parlor windows on east side painted; cellar walls cleaned and reinsulated; shelves made and installed in large ell; metal gutters east side of porch roof installed. Section of pipe in southeast parlor along east wall replaced and 1930s outlet entry hole filled. Low slanted roof installed along north side between laundry room and small ell to keep rushing water away from the house during heavy rains	Peter Benes
2011	Small 2 nd floor northeast room repaired, replastered, and painted (walls, trim, floor, and ceiling), and insulated panel added to small ell opening; back stairs, walls, skirtboard, and ceiling repaired and painted; front stairwell wall repaired and painted; large ell walls, trim, doors, windows, casements, ceiling, cabinet, and shelves repaired and painted; 2 nd floor front hall walls, trim, and ceiling repaired and painted; support post installed in cellar below front door. Kitchen floor and hallway linoleum replaced after damage by movers. Woodstove flue and chimney inspected and cleaned. Site visits for National Register Nomination site visits made by Anne Forbes, accompanied once by Larry Sorli	Peter Benes
2012	Site visits for National Register Nomination study made by Anne Forbes. Oven and kitchen counter, backsplash tiles, sink and faucet replaced; kitchen outlets and switches behind counter replaced; drainage pipes below sink and related 30-foot section of iron drainage pipe in cellar replaced with PVC pipes; kitchen evacuation fan cleaned and reinstalled and its outside ventilation checked. Top stair tread to cellar repaired; more insulation behind bulkhead added. Southeast parlor closet walls, trim, and floor painted. Rotted clapboards removed, replaced, and painted from small ell and portion of large ell; south side clapboards, windows, doors, porch, and surrounds prepped, repaired and painted; front porch roof waterproofed; south side storm windows repaired and painted; west side clapboards, windows, and entry porch prepped, repaired, and painted; 2 nd floor southeast chamber windows and storm windows prepped, repaired and painted; southeast parlor storm windows prepped, repaired and painted; kitchen door painted; clapboards on kitchen's west side prepped, repaired and painted; north side clapboards and entry porch prepped, repaired, and painted. Rotted elm tree adjacent to back shed removed. Willow tree at top of driveway removed by town.	Peter Benes
2012	New meter and electronic switch for load management system for ETS heating and water heating systems upgrade installed by Concord Municipal Light Plant	Concord Municipal Light Plant letter Peter Benes

DATE	ACTIVITY	SOURCE
2013	Cast-iron elbow joint with hairline crack in cellar replaced, other cellar pipes inspected. Maintenance to hot water heater. East porch and ceiling repaired and painted; porch fascia board repaired and painted; east porch floor repaired and sealed; treated 2x6 sill additions installed at porch floor level, and sag removed by jacking; east side clapboards prepped, repaired, and painted; laundry room walls, window, and door repaired and painted; kitchen cabinets, kitchen hallway shelves and walls painted; bathroom walls, trim, and door painted; small ell and kitchen storm doors painted; north side and small ell clapboards prepped and painted; west and east parlor windows and storm windows prepped, repaired, and painted; small ell windows and storm windows repaired and painted; cabinet in small ell painted; clapboards surrounding west end windows repaired and painted; southwest chamber west storm window and surrounding clapboards repaired and painted	Peter Benes
2013	Wheeler-Harrington House individually listed on National Register of Historic Places	

APPENDIX 2
REPRESENTATIVE MAPS
OF
WEST CONCORD
AND
THE WHEELER-HARRINGTON HOUSE

The 1711 Map

While the earliest maps of New England were limited to vague representations of coastline and major rivers, as Europeans extended inland their maps became more detailed. Since rivers played a significant role in the lives of early American Colonists, their maps paid commensurate attention to rivers. The 1711 Map below is principally a map of the coastline, rivers and towns.



Map 1: 1711 Map of New England: rivers and water bodies prominently shown. Boston Public Library G3760 1711.M36 39999059001774



Map 2: 1711 Map Enlargement: showing the Sudbury River flowing north into Concord

Exploration of the interior of the American continent was principally by river. Rivers provided a means of early transportation of people and goods. They were a source of wildlife bounty and food. They were ready landmarks and often served as demarcations between towns. When dammed they provided power for mills. In flood they were awesome. Rivers were far more important to early Americans than they are today.

The Town of Concord was established at the confluence of the north flowing Assabet and Sudbury Rivers, where their combined watersheds sends the Concord River onward through Billerica to the Merrimack River at Lowell. (See Map 2. The 1711 Map so inflates the value of the Assabet that it had to be represented as two rivers!)

The 1801 Map

The 1801 Map of Massachusetts (Osgood Carleton) maintains the prominence of rivers and ponds. The Assabet, Sudbury and Concord Rivers are graphically significant. So too are three ponds, likely White Pond to the south, Walden Pond on the east and Batemans Pond to the north. The label for Middlesex County is bold.

Town lines and principle roads of the towns are shown as well. While not labeled on this 1801 map, prominent roads likely include the north-northwesterly route of Walden Street and Lowell Road, which passes east of Walden Pond northward to pass west of Batemans Pond. The principle east-to-west roadway might be today's Route 2/2A, while the contemporary Old Marlboro Road (carrying southward as Old Pickard Road) running generally north/south immediately west of the second D of Middlesex.

The Harrington Property would be located generally south of the Assabet River between the double Ds of the county label Middlesex.



1801 Map of Massachusetts Proper, Compiled from Actual Surveys made by Order of the General Court, by Osgood Carleton, Massachusetts Historical Society (color infill of Town of Concord added for clarity)

Town of Concord Maps 1832 - 1870



1832 Map: Courtesy of Concord Historic Commission

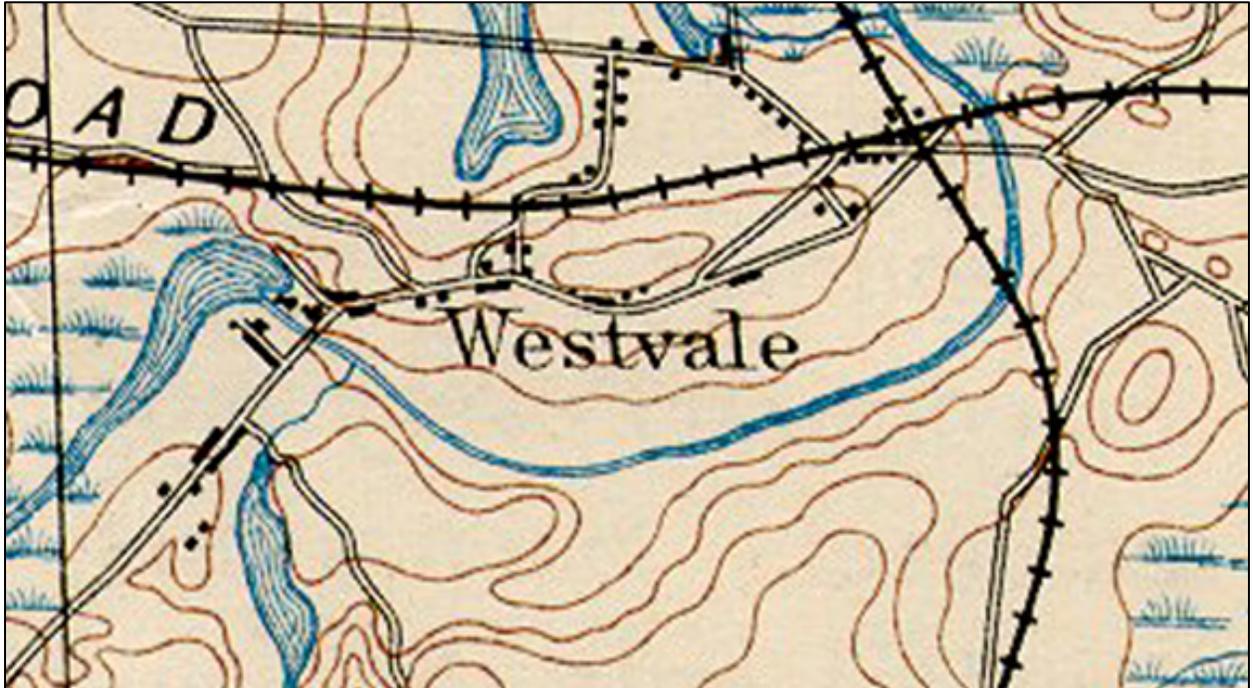


1852 Map: Henry Francis Walling, engineer. Concord Historic Commission

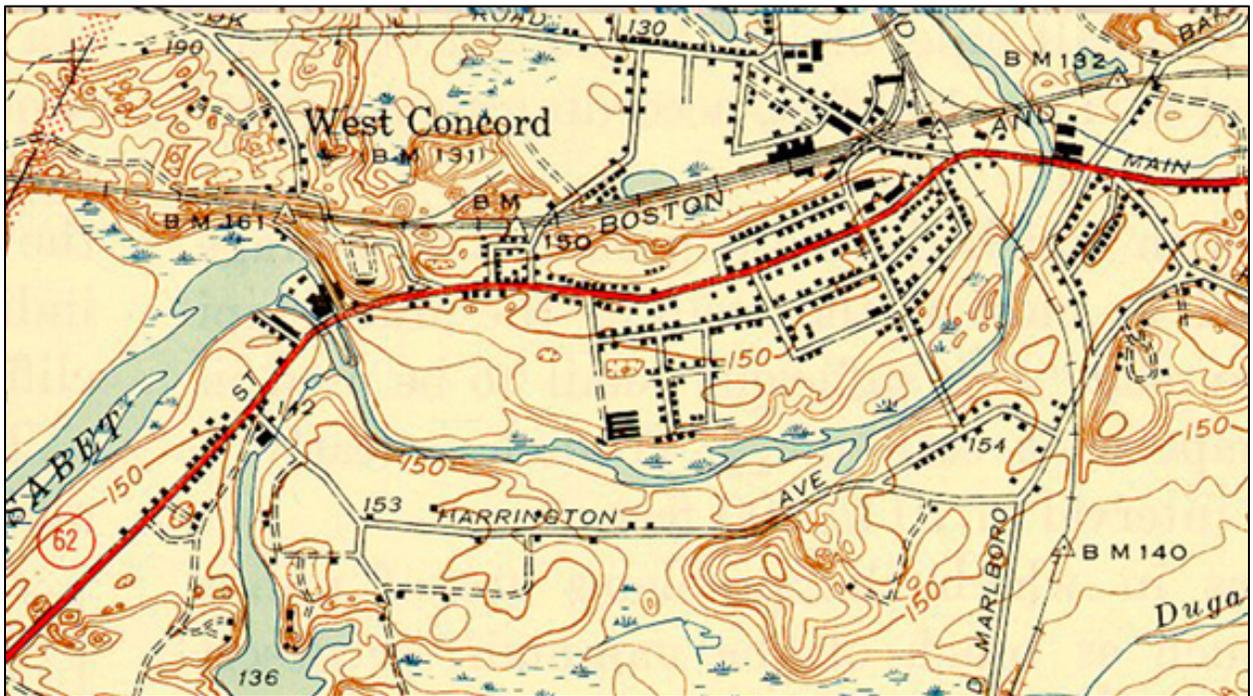


1870 Map: Town of Concord: J. Harrington House located

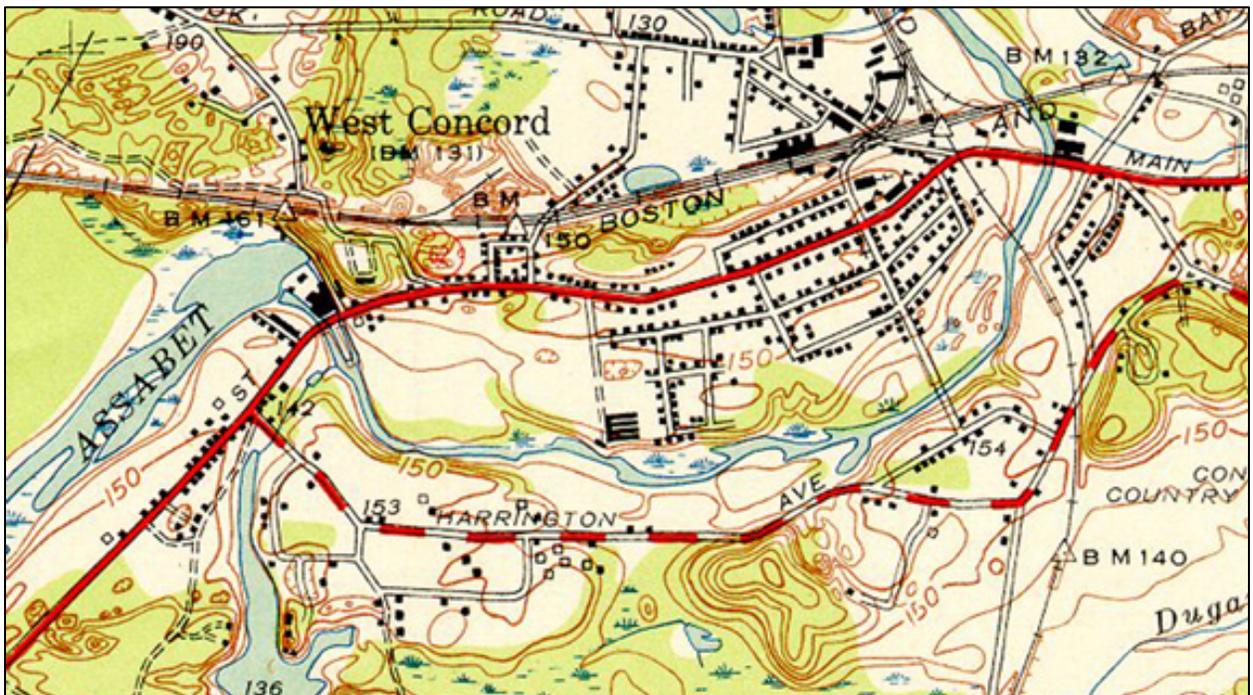
[United State Geological Survey Maps](#)



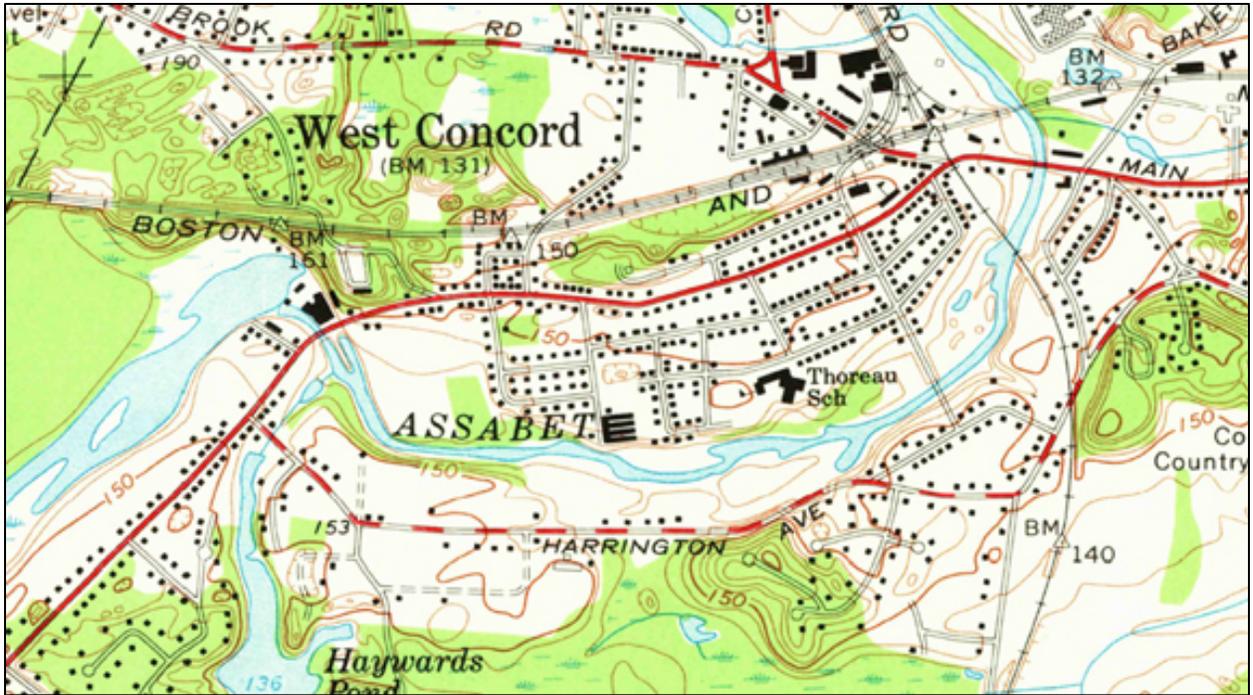
1894 USGS Map, Framingham Quadrangle: Wheeler Harrington House located directly under the first 'e' of Westvale, on the south side of the river.



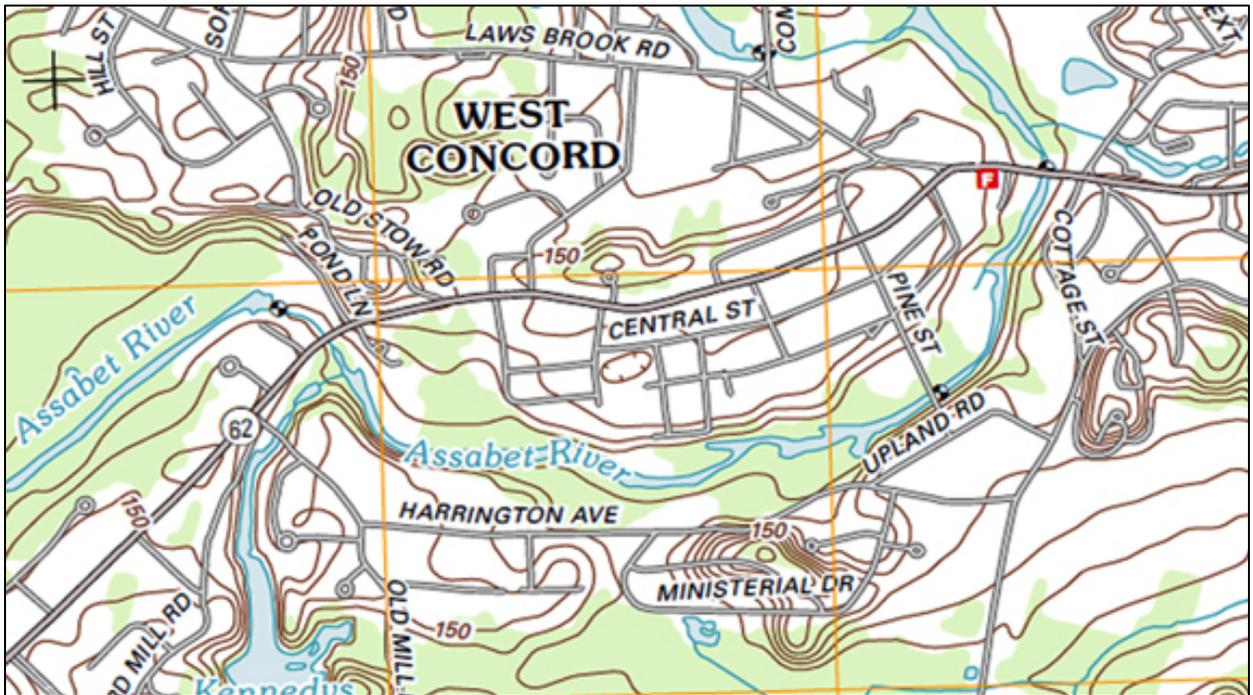
1943 USGS, Concord Quadrangle, West Concord: Wheeler Harrington House located at the upper tip of the first letter N in Harrington Avenue.



1950 USGS Concord Quadrangle: Wheeler Harrington House located at the upper tip of the first letter N in Harrington Avenue.



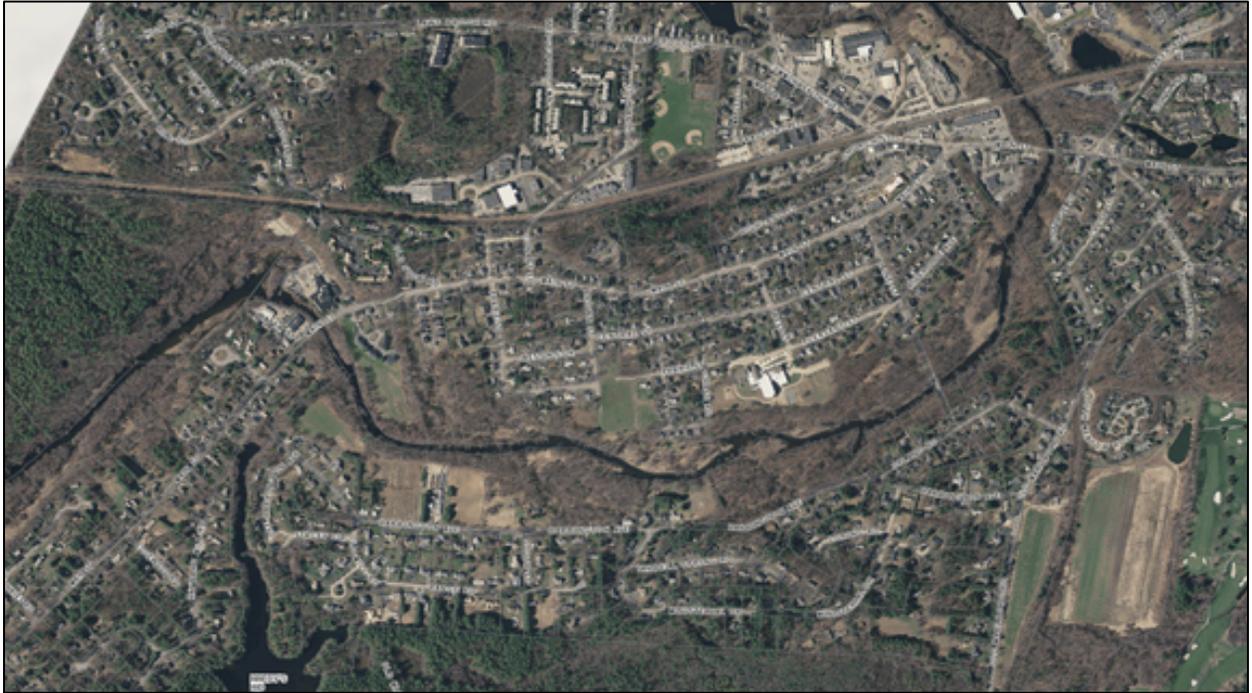
1967 USGS Map



2012 USGS National Map for West Concord



2014 Concord MA GIS Website: <http://www.mapsonline.net/concordma/index.html>



2014 Concord MA GIS Website: <http://www.mapsonline.net/concordma/index.html>

APPENDIX 3

DEED TO WHEELER-HARRINGTON HOUSE

Cultural Landscape Report
February 2015

Wheeler-Harrington Property
West Concord, Massachusetts

Southern Middlesex - 20/20 Perfect Vision i2 Document Detail Report

Current datetlme: 9/11/2014 2:20:10 PM

Doc#	Document Type	Town	Book/Page	File Date	Consideration
60078525	DEED		12639/350	05/30/1974	125000.00
Property-Street Address and/or Description					
HARRINGTON AVE					
Grantors					
LEBALLISTER DAVID C, LEBALLISTER RALPH H					
Grantees					
CONCORD TOWN					
References-Book/Pg Description Recorded Year					
Registered Land Certificate(s)-Cert# Book/Pg					

10.75 10

517
SEE PLAN IN RECORD BOOK 12639 PAGE 350
BY 30-74 PG 558E**10.75

We, Ralph H. LeBallister, of Boxborough, Middlesex County, Massachusetts,
and David C. LeBallister,
of Littleton, Middlesex County, Massachusetts

do hereby convey to you, for consideration paid, and in full consideration of \$125,000.00

grants to The Inhabitants of the Town of Concord, Massachusetts, acting through its Conservation Commission and Natural Resources Commission, of with covenants

to you

(Description and encumbrances, if any)

The land with the buildings thereon situated on the northerly side of Harrington Avenue in Concord, Massachusetts, being shown on a plan entitled "Plan of Land in Concord, Mass. to be conveyed to the Town of Concord", Dated July 1973, John R. Snelling Associates, Engineers and Land Surveyors, Lincoln, Mass. bounded and described as follows:

- SOUTHWESTERLY by Harrington Avenue by two courses, as shown on said plan, measuring respectively 300.00 feet and 977.75 feet;
- NORTHWESTERLY by land of Joseph B. and Mary P. Marshall, as shown on said plan, 523.00 feet, more or less;
- NORTHEASTERLY by the Assabet River, as shown on said plan, 1312.00 feet more or less;
- SOUTHEASTERLY by land of Thomas W. Gosson, as shown on said plan, 370.00 feet, more or less.

Said lot containing 15.22 acres, more or less. Hereby conveying and intending to convey said lot, however otherwise the same may be bounded, measured or described.

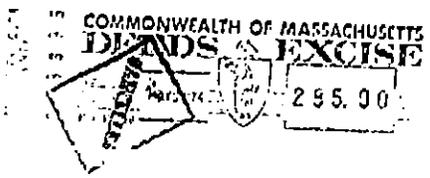
This conveyance is made subject to easements of record so long as the same may be in force and applicable.

For title, see deed dated September 24, 1970 recorded with Middlesex South District Registry of Deeds in Book 11901, Page 506, and deed of Frank J. Girardi et ux dated January 28, 1974, recorded with said Deeds in Book 12584 Page 034.

*Release James & James to all other interests
By Mildred A. LeBallister wife of Ralph H
LeBallister and Linda J. LeBallister
wife of David C. LeBallister*

EXECUTED UNDER SEAL
~~XXXXXXXXXXXXXXXXXXXX~~ this 29th day of MAY 19 74

.....
.....
.....
Ralph H. LeBallister
Ralph H. LeBallister
Mildred A. LeBallister
Mildred A. LeBallister
David C. LeBallister
David C. LeBallister
Linda J. LeBallister
Linda J. LeBallister



The Commonwealth of Massachusetts

Middlesex, ss. May 29, 19 74

Then personally appeared the above named Ralph H. LeBallister and David C. LeBallister

and acknowledged the foregoing instrument to be their free act and deed, before me

Brian R. Saltus
.....
Notary Public -- ~~XXXXXXXXXXXX~~
Brian R. Saltus
My Commission Expires OCTOBER 22, 19 76

CHAPTER 183 SEC. 6 AS AMENDED BY CHAPTER 497 OF 1969

Every deed presented for record shall contain or have endorsed upon it the full name, residence and post office address of the grantee and a recital of the amount of the full consideration thereof in dollars or the nature of the other consideration therefor, if not delivered for a specific monetary sum. The full consideration shall mean the total price for the conveyance without deduction for any liens or encumbrances assumed by the grantee or remaining thereon. All such endorsements and recitals shall be recorded as part of the deed. Failure to comply with this section shall not affect the validity of any deed. No register of deeds shall accept a deed for recording unless it is in compliance with the requirements of this section.

Archaeological Description

The following archaeological assessment of the Wheeler-Harrington House was prepared by the Massachusetts Historical Commission based on field surveys conducted in 2011 and reported in the Archaeological Description on the National Register of Historic Places Registration Form: Wheeler-Harrington House (NPS 2013):

Seven ancient sites are located in the general area (within one mile) of the property. Environmental characteristics of the property are generally favorable for many types of prehistoric sites. The property is located on a well-drained level to moderately sloping riverine terrace above the Assabet River which borders the property to the north, a highly favorable locational characteristic. Given the above information, the size of the property (15.22 acres), historic period development, a high potential exists that additional sites will be found.

A high potential also exists for the recovery of historic archaeological resources within the Wheeler-Harrington House property. Structural evidence may survive from at least two barns and a stable that were present on the property by the mid-twentieth century. A small horse stable, a long, open-sided horse shelter, and two sheds were all built in the mid-twentieth century and demolished after purchase by the town in 1974. The stable stood on the site of a large earlier barn, which may have been the building called a "new barn" in town assessor's records of 1827. The presence of a "new barn" in 1827 may indicate the presence of a second or "old barn," possibly dating to the eighteenth or early nineteenth century.

Based on the passage of some 80 or more years between the construction of the house in the 1740s and "new barn" in 1827, archaeological evidence of a third barn may also exist. Historical evidence and archaeological testing might produce evidence of other, poorly documented, outbuildings including sheds, a milkhouse, and a poultry house. Archaeological evidence of occupational-related features (trash pits, privies, wells) may also survive associated with the farm and its occupations. Artifact scatters, including large-dimension hearth bricks and redware ceramic fragments, have also been reported on the property.

References Cited

United States Department of the Interior, National Park Service (NPS)
2013 *NPS Form 10-900, National Register of Historic Places Registration Form: Wheeler-Harrington House*. Prepared by Massachusetts Historical Commission. May, 2013.

Wheeler-Harrington House

Concord, Massachusetts



Historic Structure Assessment

September 2014

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architecture preservation

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BUILDING HISTORY & ALTERATION CHRONOLOGY

The house was built for farmer and bricklayer Josiah Wheeler (1718-1768), probably a few years after his marriage to Mary Lee in 1742. The Wheeler family was an early proprietor that established farms in the “South Quarter” of Concord in the 1650s and continued to dominate the area for the next 250 years. The isolated Josiah Wheeler property comprised 100+ acres located between Second Division Brook to the west, the Assabet River to the north, and the road leading south to Marlborough to the east. The house is the oldest known building in West Concord.

Josiah’s wife Mary remained in the house until her death in 1799 and Wheeler family members retained ownership until 1827, when it was purchased by Joseph Harrington (1795-1877).

A major rebuilding project took place in 1826-27, coinciding with Harrington’s acquisition of the farm. Architectural historian Anne Forbes has suggested that the house might have deteriorated during the time it was occupied by Josiah Wheeler’s widow and required extensive stabilization. The original center chimney stack and most of the original frame were retained, and some original framing elements were relocated in this building campaign. The roof was replaced with one featuring a Federal-era shallow pitch and boxed eaves, and trim was added that reflected the incoming Greek Revival style. The hearths were replaced and the fireplaces rebuilt. A new barn on the property was noted in the town assessor’s records.



1832 map of Concord. Courtesy William Munroe Special Collections, Concord Free Public Library.

Renovations made in 1840-41 included updating the front entry with full-length sidelights and the addition of the northeast ell containing the kitchen and sink rooms. The window openings on the front and gable ends, which have Greek Revival proportions, may date to this renovation.

Evidence of a cooking fireplace places the original kitchen in the east room. The second kitchen was in a lean-to at the rear of the house, now occupied by the 1960s kitchen addition. The third kitchen was located in the 1840-41 northeast ell addition.

In the mid-19th century an early pantry at the northeast part of the east room/original kitchen was removed. In the 1870s or 1880s, the Italianate paneled center door and door hood with incised brackets were installed. Around the turn of the 20th century the shed-roofed porch was added along the east wall at the first story.

The long shed-roofed addition across the back of the house was built in 1960 and replaced a kitchen lean-to and an attached line of sheds. Architectural evidence suggests that the second kitchen lean-to did not extend all the way across the back of the house, although a photograph from 1935 shows the rear shed extending far west



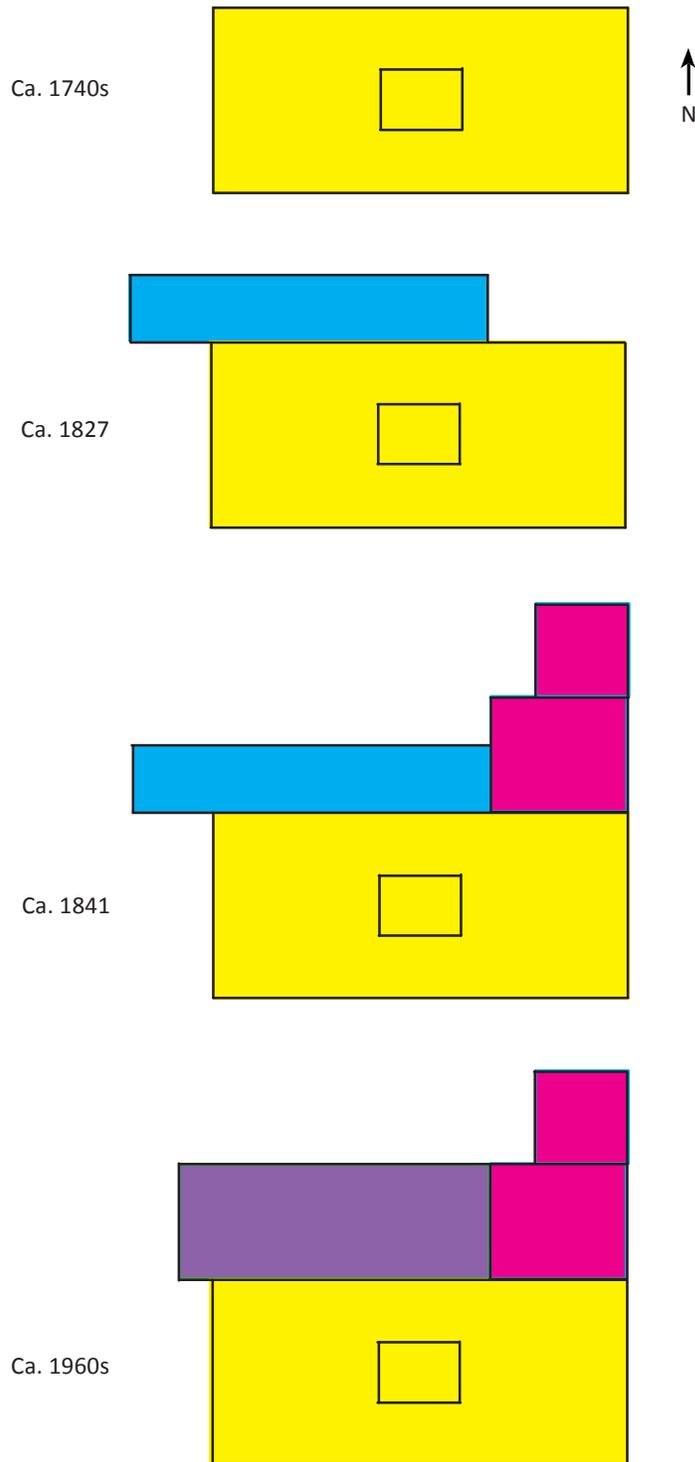
Harrington House, 1937; photograph by George Shepard, from the Ruth Wheeler House File. Courtesy William Munroe Special Collections, Concord Free Public Library.

of the present kitchen lean-to. In 1975 a shed attached to the west side of the house was removed. The drawings on the facing page suggest how the house might have evolved over time.

The construction/alteration chronology on page 6 was assembled using data supplied by the Town of Concord, the curator of the Wheeler-Harrington House, Historic New England (formerly the Society for the Preservation of New England Antiquities), and the National Park Service/U. S. Department of the Interior.



Elms at Harrington's, Concord; 1916 photograph by Herbert Wendell Gleason, from the Robbins-Mills Collection of Gleason Negatives. Note garage/barn at left and stone wall at facade. Courtesy William Munroe Special Collections, Concord Free Public Library.



Conjectural evolution of the house as it grew over time. Drawings are not to scale.

Wheeler-Harrington House Building Chronology

DATE	ACTIVITY	SOURCE
Ca. 1740s	Original house constructed (central chimney stack and considerable portion of old frame extant at core of current structure). Original farm was 100+ acres	National Register nomination (2013)
1768	House and barn cited in Josiah Wheeler's will: "now Dwelling house and Barn"	Josiah Wheeler's will
1826-27	Major rebuilding that lent house its current form and appearance. Roof, parts of framing, and most architectural details replaced. Number of old timbers relocated throughout building. Hearths replaced and fireplaces rebuilt. 6 over 9 window centered under north gable peak at inner ell dates to this renovation and is earliest in house	National Register nomination (2013) SPNEA Historic Structure Report (1980)
1827	"New barn" noted in town assessor's records	National Register nomination (2013)
1840-41	Northeast ell and small shed (pump/sink room) added. Greek Revival sidelights installed at center entry	National Register nomination (2013)
Ca. 1840	Stone-lined well installed	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1840, 1853	Joseph Harrington added several acres to southwest end of farm	National Register nomination (2013)
Mid 19 th c.	All but one interior paneled doors installed. (One interior door is earlier Federal period and may have been former front door)	National Register nomination (2013)
Mid 19 th c.	Early pantry at northeast part of east room/kitchen removed – partition walls removed and repairs made to floor	National Register nomination (2013)
1870s-80s	Italianate paneled center door and door hood installed	National Register nomination (2013)
Late 19 th /Early 20 th c.	2/2 sash installed in windows at front and gable-end elevations	National Register nomination (2013)
Late 19 th /Early 20 th c.	Shed-roof porch installed along east wall at first story	National Register nomination (2013)
1908	New brick mantel and closet constructed in southeast room and bake oven to right of firebox removed. Closet deepened in southwest room	SPNEA Historic Structure Report (1980)
1913	Owner Waldo Lapham divided land into 34 lots on both sides of today's Harrington Avenue. Wheeler-Harrington Farmstead (Lot #32, 6.33 acres) and Lot #33 (5.25 acres) to its east purchased by Edgar L. Willard	National Register nomination (2013)
1913 - 1924	Electricity and plumbing installed. Gould pump set up in cellar against ell's rear foundation wall to supply kitchen and new bathroom in rear ell. Septic system installed on hill east of the small ell.	National Register nomination (2013) Peter Benes
1924 - 1974	Owner Ralph LeBallister bought back some of the lots Lapham had divided out of old farm, inc. some south of Harrington Ave., part of Lot #30 on the north, and Lot #31 to the west	National Register nomination (2013)

DATE	ACTIVITY	SOURCE
20 th c.	Plaster ceilings and beam casings of two first-story rooms removed	National Register nomination (2013)
20 th c.	Fireplace surround in parlor removed	National Register nomination (2013)
20 th c.	Doorway created into small northeast chamber (over kitchen ell) from main east chamber	National Register nomination (2013)
1930s	Chimney top completely rebuilt above the roof line; four flues reduced to two	SPNEA Historic Structure Report (1980)
1937	Dwelling reroofed	Town Building Dept. Records (building permit)
1930s	Pair of large spruce trees probably planted on the site of the two "Harrington Elms" Note: Shepard photo shows them in 1930s	National Register nomination (2013)
1930s-40s	Pasture and watering hole for horses installed	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1945	Building relocated for garage	Town Building Dept. Records (building permit)
Mid 20 th c.	6/6 windows with flat casings replaced earlier windows at east chamber. East 2 nd floor chamber ceiling replaced with fiberboard	National Register nomination (2013) SPNEA Historic Structure Report (1980)
1960s	Long shed-roofed addition across back of house containing kitchen, bathroom and utility room replaced a lean-to and attached lines of sheds that extended west toward freestanding barn. Hot-air heating system installed with furnace in new addition. 19 th c. barn (seen on town surveys as late as 1913) replaced with smaller horse stable	National Register nomination (2013)
1964	Addition to barn	Town Building Dept. Records (building permit)
1973	Property put up for sale and remaining Lapham lots on south side of Harrington Avenue acquired by real estate developers	National Register nomination (2013)
1974	Property (15.6 acres inc. farmhouse) purchased from the LeBallisters by the Town	National Register nomination (2013)
1974-75	Four mid-20 th c. outbuildings (small horse stable, open-sided horse shelter, two sheds) demolished	National Register nomination (2013)
1975	Shed attached to west side of house removed	Town Building Dept. Records
1975	Farmhouse stabilized and brought up to code. New septic and heating systems, connection to town water line, house repainted, new roof installed, windows repaired/reglazed, new wiring and utility systems	National Register nomination (2013) Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1975	Trap door created in kitchen hallway, window in 2 nd story room of [1860] addition closed off, window in cellar closed off. Board in front of fireplace nailed down and fireplace surface plastered	Phebe Ham memo to Forrest Nelson (Oct. 1975)
1975	First tenants, Rob and Becky McCall, moved in	National Register nomination (2013)

DATE	ACTIVITY	SOURCE
Ca. 1975-1982	West parlor fireplace “taken apart” and “reconstructed” by McCalls	Sue Thorstensen to Sara Chase, 1982
Post-1975	Three small outbuildings (tool shed, equipment shed, chicken coop) built north of house and garden	National Register nomination (2013)
1979	New 8' x 12' utility outbuilding constructed Note: This is one of the three small outbuildings mentioned above and used at that time as a chicken coop	Town Building Dept. Records
1970s	Low Victorian stone wall in front of house dismantled to prevent water from trapping between wall and house	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989)
1980	SPNEA reports produced (Conditions Assessment and Historic Structure Report)	Historical Commission History (2002)
1982	Sue Thorstensen moved in as tenant. Work performed on landscape, pest control, fire inspections, and driveway repairs. Plastic sheeting attached to house over rotted out portions of sill. Proposal to replace framing timbers over well. West chamber painted. Wood from McCalls’ “reconstruction” of west parlor fireplace removed and discarded	Historical Commission History (2002) Letter from Sara Chase to Sue Thorstensen, Feb. 23, 1982; S. Thorstensen communication to Beneses
1983	Kitchen linoleum floor replaced by volunteers. Drainage plan proposal by Carol Dwyer. Peter and Jane Benes moved in as tenants	Lou Hills and Bill Sullivan communication to Beneses. Carol Dwyer to Renee Garrelick, July 6, 1983. Concord Historical Commission Chronology (Ryan, 3.25.02)
1983	Interior repairs: floors, bathrooms, ceilings, painting, plastering, and insulation. Front hall ceiling repaired and painted, base plate made for kitchen hallway light fixture, insert for large ell stove pipe opening made, storm windows reglazed, storm doors made from discarded doors in cellar and installed, cellar windows rebuilt and reglazed, doors weatherproofed. Front-door frame repaired and tightened. New well cover built. Foundation stones repaired and re-insulated, large stones piled against rotting sill on south side removed and used in making stonewall along south and west side of house, 2 truckloads of debris and concrete rubble removed from cellar and foundation. Proposal to replace sill and address water-damaged joists and timbers	Historical Commission History (2002) Addendum A, Peter Benes (2004) Peter Benes
1983	Timberframe Co. performed following repairs: Replaced south sill. In the cellar reestablished structural integrity of 12' x 14' ell above well - original structure left in place and secondary structure constructed beside and under existing structure. New corner posts installed. 1826 Liberty Head penny found on south sill. Lower south side clapboards and cornerboards replaced. Front walkway regraded. Foundation along west side exposed and trench dug for drainage. North side foundation graded. Protective shield for access window to cellar made. Stumps removed. Trash removed from visible garbage dump on east hill. Woodstove and stove base	Addendum C. <i>An Outpost on the North River</i> , Peter Benes Talk (1989) Town Building Dept. Records (building permit) Timberframe Co. proposal (8.18.82) Peter Benes

DATE	ACTIVITY	SOURCE
	installed in west parlor and inspected by Fire Dept. Fireplaces, chimneys, and electricals inspected. Main electrical panel board replaced by town electrician; additional fire extinguishers installed	
1983, 1985	Installed new clapboards on outer ell and south side, new baseboards in both locations, and exposed/repared baseboard on west side. Rebuilt ell window inside and out. Stabilized treads on front stairs	Addendum A. Peter Benes (2004)
1983, 1989, 1995	Waterproofed chimney to roof joint	Addendum A. Peter Benes (2004)
1983-2008	Annual maintenance of hot water and oil burner heating units	Peter Benes
1983-2012	Blueberries planted. Dead trees cut up and taken to town composting site	Peter Benes
1983-2013	Repaired/re-nailed clapboards as necessary prior to painting house and ells. Removed rot, prepped, scraped, sanded, and painted one side yearly on revolving schedule every four years through 2011. Entire house done 2012-2013. Exterior doors painted on same schedule. Continuous work removing rot, rebuilding, repairing, and repainting storm windows, 2/2 windows, and 1826 window surrounds. Hardware in doors periodically removed and refurbished in 8 interior doors. Storm and screen doors refurbished every two years and painted. Dirt access road graded and holes filled in with stones. Gardens made, planted, and maintained around house; invasives cleared from around house and adjacent areas of park; raspberries planted and maintained; trash removed from lower field. Artifacts found around house collected and stored in cellar	Addendum A. Peter Benes (2004) Peter Benes
1984	Hot water heater replaced. Chimney liners, rain cap, and heat shield installed for wood stove	Historical Commission History (2002) Peter Benes
1984	Regraded foundation along south side. Repaired/reattached 18 th /early 19 th c. window surrounds— two window surrounds on west side and four on south side on first floor and attic level. Rebuilt three windows and surrounds in cellar. Rebuilt exterior front door jamb and door surrounds. Added plexiglass insulator strips on front door windows. Removed rotten wood, rebuilt and covered front entry porch with asphalt shingling; waterproofed joint at clapboards. Repaired and painted shutters. Fabricated and installed grainpainted fireboards (circa 1830 style) to prevent heat loss in north and south chambers and east room (old kitchen); wood panel constructed, painted, and installed in wall above door between front hallway to east parlor; front hall floor and stairs, skirtboard, and banister painted; walls, doors, floor, and window in hall between northwest and southeast chambers painted; west parlor painted; shutters repaired and painted	Addendum A. Peter Benes (2004) Peter Benes
1985	Removed portions of paint from door to small ell to expose graining. Replaced outer doorjamb in smaller ell. Waterproofed and rebuilt flashing to larger ell; kitchen door	Addendum A. Peter Benes (2004) Peter Benes

DATE	ACTIVITY	SOURCE
	and cabinets and kitchen hallway shelves and walls painted; doors and wall in front hall painted; back stairwell walls, skirtboards, and stairs painted; windows in southeast room painted. Ceramic tile in bathroom regouted	
1985	Walls repaired where water had infiltrated. Shed bolstered "before it collapsed." Small ell roof shingled. Rot removed and east porch floor and columns repaired and painted	Historical Commission History (2002) Peter Benes
1986	Small ell sill replaced by Timberframe Company. Exterior door and screen door to small ell planed and rehung, front porch roof waterproofed and shingled. Large plaster section missing in small ell repaired, large plaster section in west parlor from former heat duct repaired, 20 th -century wallpaper from below chair rail in west parlor removed and sealer applied. Doors, trim, and walls in west parlor painted	1986 Town Report Peter Benes
1986	Removed rot from east door leading to porch, rebuilt surrounds and re-hung door. Waterproofed and rebuilt flashing to smaller ell. Installed stairs handrail into cellar, rot removed and lower clapboards of small ell replaced and painted, cellar window on east side rebuilt from fragments found under porch and screen inset made. Porch floor sealed, 4 pairs shutters repaired and painted	Addendum A. Peter Benes (2004) Peter Benes
1986-2004	Assembled 75 linear feet of rock walls at front and northwest side of house and area behind smaller ell	Addendum A. Peter Benes (2004)
1986-2013	Trees along driveway planted as windbreak and erosion control; extensive numbers and varieties of fruit, fir, and nut trees planted as well as bulbs and flowering shrubs and bushes	Peter Benes
1987	Small ell reroofed.	Historical Commission History (2002) Peter Benes
1987	Exterior painted, kitchen entry door sills rebuilt, window and door surrounds rebuilt, front steps repaired, storm windows reputtied, shutters repainted. Bathroom walls, trim, window, and ceiling painted; woodwork of large ell painted; window surrounds in small ell rebuilt	1987 Town Report Addendum A. Peter Benes (2004)
1988	Shutters repainted; southeast parlor window surrounds and windows repaired and painted. Electrical repairs to cellar, hall, and 2 nd floor rooms	Peter Benes
1989	Storm windows repaired and painted, west parlor trim and windows repaired and painted, east porch floor waterproofed. Remaining shutters repaired, painted, and all shutters stored in cellar	Peter Benes
1987-1997	Re-nailed boards and waterproofed east side porch five times	Addendum A. Peter Benes (2004)
1990	Fabricated/installed two storm windows for attic. Reshingled roof of outer ell. Covered front entry porch with asphalt shingling and waterproofed joint at clapboards. Fabricated planing tool to restore all ground-floor window-keepers	Addendum A. Peter Benes (2004)
1990	New water heater installed; electric cooktop replaced	Concord Historical Commission Chronology

DATE	ACTIVITY	SOURCE
		(Ryan, 3.25.02) Peter Benes
1991	Repaired underside of east porch roof after damage by nearby lightning strike and added underside support. Front hall floor, stairs, skirtboard, and banister painted; kitchen door painted.	Addendum A. Peter Benes (2004) Town Building Dept. Records Peter Benes
1991-1995 1996-2013	Septic tank pumped out annually Septic tank pumped out every two years	Peter Benes
1992	Removed and rebuilt lower window frame in east room; back stairs, skirtboard, and door painted; stairway surrounds to stairwell painted; entryway to small northeast chamber painted; small ell roof waterproofed	Addendum A. Peter Benes (2004) Peter Benes
1993	Rebuilt storm window on 2 nd floor west side; bathroom walls, trim, and ceiling painted; ceramic tile in bathroom repointed	Addendum A. Peter Benes (2004) Peter Benes
1994	Installed wooden covers for heating units in hallway and eastern room, rot removed and lower clapboards from north side of house replaced and painted	Addendum A. Peter Benes (2004) Peter Benes
1995	Stone-filled wooden ground gutters constructed and laid along south side of house, two PVC drainage pipes attached to ground gutters and sunk below south lilacs to drain into south hill, gully on south edge of driveway filled with large stones. New bathroom sink and mirror installed	Peter Benes
1996	Removed insect infestation and rotted portion of north side and extensively repaired and replaced exterior clapboards, selectively replaced 1960s kitchen sill.	Addendum A. Peter Benes (2004) Peter Benes
1997	Added four inches to roofline of outer ell to prevent water damage to sill. Covered front entry porch with asphalt shingling and waterproofed joint at clapboards.	Addendum A. Peter Benes (2004)
1998	Installed kitchen gutter and downpipe and buried escapement for excess water to downhill drain, new woodstove in west parlor installed, chimney and woodstove pipe cleaned. Grape arbor planted, flowering quince and bridal wreath spirea bushes relocated from west garden to east side of south hill	Addendum A. Peter Benes (2004) Peter Benes
1999	Rebuilt cap and installed copper flashing on attic window, east side. Replaced rotted wood in one corner of east porch foundation, removed and replaced insect-damaged wood and rot from south porch and porch columns, repaired and painted porch ceiling, removed and rebuilt rotted portion on eastside sill at porch juncture, and replaced copper flashing. Installed electric heating cables above kitchen gutter; front hall doors, walls, floor, stairs, skirtboard, and banister painted; windows in southeast room painted; bathroom walls, trim, door, and ceiling painted; kitchen door and shutters in kitchen hallway painted; walls, trim, doors, floor, and window in 2 nd floor hall painted; back stairwell walls, ceiling, skirtboard, and stairs painted. Cellar dehumidifier installed. Rotted elm tree in park removed by town	Addendum A. Peter Benes (2004) Peter Benes

DATE	ACTIVITY	SOURCE
2001	Entryway from large ell to kitchen hall rebuilt and painted	Peter Benes
2002	Re-hung door from larger ell to smaller ell	Peter Benes
2003	Reconstructed and repaired echinus cornice on west side. Restored and painted west bedroom walls, trim, doors, and ceiling; painted windows and doors in west parlor. Leveled driveway and put down large stones to prevent erosion and small stones to prevent persistent mud sinkholes. New kitchen sink installed, woodstove pipe and chimney cleaned	Addendum A. Peter Benes (2004) Peter Benes
2004	Waterproofed and rebuilt flashing to smaller ell, replaced lower boarding and rotted clapboards on east side house and ell, added section of copper flashing, replaced board running between porch ceiling and east side house, rewaterproofed cap east side attic window. Replaced and painted bottom riser on back stairs, front hall floor and front stairs painted, kitchen door painted, 2 nd floor hallway window and floor painted. Exterior electrical outlets installed on north and east side by town electrician	Addendum A. Peter Benes (2004) Peter Benes
2005-2010	Insulated laundry room. Closed off flue vent in laundry room chimney. Made porch roofs with gutters over kitchen, laundry room and small ell doors for drainage and sill protection. Replaced rotted post and floorboards on east porch and waterproofed floor. Installed gutters over east porch. Replaced fascia on northwest corner of house. Installed catch basin over front porch ceiling. Insulated old bulkhead.	Additions to Tenant's Work Items (2010) Peter Benes
2005	Second echinus cornice on west side replaced; back stairs, skirtboard, and walls painted. Southeast parlor windows on south side painted. Lead paint analysis done by the Lead Lab, Inc., Belmont, MA	Peter Benes
2006	Rot removed and kitchen and small ell door sills replaced, ceramic tile in bathroom regouted, selected bathroom tiles replaced. Front hallway and ceiling painted; front stairwell wall, ceiling, and skirtboard painted. Lean-to roof on small ell added to protect snow blower	Additional Work Completed (2010) Peter Benes
2007	30-year architectural shingles installed on the roof; roof debris from attic and grounds removed; clapboards loosened/disturbed by roofers replaced; laundry room walls, trim, window, and ceiling painted; laundry room shelves installed	Town Building Dept. Records Peter Benes Additional Work Completed (2010)
2008	New ETS heating system installed, cement foundation laid. Woodstove inspected, woodstove pipe and chimney cleaned, oil burning hot water tank removed from laundry room, new electric hot water tank installed in cellar, buried oil tank removed from backyard. Kitchen floor, hallway, and bathroom linoleum replaced. Dryer moved from cellar to laundry room. New bathroom sink installed. Laundry room cement floor sealed. Cedar gutters made, painted, and installed on short ends of east porch roof, north storm window in small ell made and installed. Chimney capped	Town Manager Office Records Peter Benes
2009	West parlor walls and woodwork repaired and painted; front stairs, skirtboard, and banister painted; bathroom walls, trim,	Peter Benes

DATE	ACTIVITY	SOURCE
	and ceiling painted; kitchen door, hallway and shelves painted; cover to cellar access window shingled	
2010	East porch floor repaired and sealed; east and north side clapboards scraped, repaired, and painted; north side gutter repaired; kitchen ceiling and kitchen hallway ceiling painted; southeast parlor windows on east side painted; cellar walls cleaned and reinsulated; shelves made and installed in large ell; metal gutters east side of porch roof installed. Section of pipe in southeast parlor along east wall replaced and 1930s outlet entry hole filled. Low slanted roof installed along north side between laundry room and small ell to keep rushing water away from the house during heavy rains	Peter Benes
2011	Small 2 nd floor northeast room repaired, replastered, and painted (walls, trim, floor, and ceiling), and insulated panel added to small ell opening; back stairs, walls, skirtboard, and ceiling repaired and painted; front stairwell wall repaired and painted; large ell walls, trim, doors, windows, casements, ceiling, cabinet, and shelves repaired and painted; 2 nd floor front hall walls, trim, and ceiling repaired and painted; support post installed in cellar below front door. Kitchen floor and hallway linoleum replaced after damage by movers. Woodstove flue and chimney inspected and cleaned. Site visits for National Register Nomination site visits made by Anne Forbes, accompanied once by Larry Sorli	Peter Benes
2012	Site visits for National Register Nomination study made by Anne Forbes. Oven and kitchen counter, backsplash tiles, sink and faucet replaced; kitchen outlets and switches behind counter replaced; drainage pipes below sink and related 30-foot section of iron drainage pipe in cellar replaced with PVC pipes; kitchen evacuation fan cleaned and reinstalled and its outside ventilation checked. Top stair tread to cellar repaired; more insulation behind bulkhead added. Southeast parlor closet walls, trim, and floor painted. Rotted clapboards removed, replaced, and painted from small ell and portion of large ell; south side clapboards, windows, doors, porch, and surrounds prepped, repaired and painted; front porch roof waterproofed; south side storm windows repaired and painted; west side clapboards, windows, and entry porch prepped, repaired, and painted; 2 nd floor southeast chamber windows and storm windows prepped, repaired and painted; southeast parlor storm windows prepped, repaired and painted; kitchen door painted; clapboards on kitchen's west side prepped, repaired and painted; north side clapboards and entry porch prepped, repaired, and painted. Rotted elm tree adjacent to back shed removed. Willow tree at top of driveway removed by town.	Peter Benes
2012	New meter and electronic switch for load management system for ETS heating and water heating systems upgrade installed by Concord Municipal Light Plant	Concord Municipal Light Plant letter Peter Benes



DATE	ACTIVITY	SOURCE
2013	Cast-iron elbow joint with hairline crack in cellar replaced, other cellar pipes inspected. Maintenance to hot water heater. East porch and ceiling repaired and painted; porch fascia board repaired and painted; east porch floor repaired and sealed; treated 2x6 sill additions installed at porch floor level, and sag removed by jacking; east side clapboards prepped, repaired, and painted; laundry room walls, window, and door repaired and painted; kitchen cabinets, kitchen hallway shelves and walls painted; bathroom walls, trim, and door painted; small ell and kitchen storm doors painted; north side and small ell clapboards prepped and painted; west and east parlor windows and storm windows prepped, repaired, and painted; small ell windows and storm windows repaired and painted; cabinet in small ell painted; clapboards surrounding west end windows repaired and painted; southwest chamber west storm window and surrounding clapboards repaired and painted	Peter Benes
2013	Wheeler-Harrington House individually listed on National Register of Historic Places	

BUILDING DESCRIPTION

The form and setting of the Wheeler-Harrington House are succinctly described by architectural historian Anne Forbes in the 2013 National Register of Historic Places Nomination:

The Wheeler-Harrington House is a two-story, center-chimney clapboarded single-pile, five-bay house with a mid-18th century core, and details and proportions characteristic of the 1820s. The building is a south-facing, side-gabled house with a two-part, cross-gabled northeast rear ell and a long one-story shed-roofed mid-20th century rear addition extending west of the ell, across the back of the house. This 20th century addition, which replaced a lower rear leanto and a long line of sheds of undetermined date, echoes its predecessors in both form and footprint, terminating several feet beyond the northwest corner of the main house. In addition to the main brick center chimney, which was rebuilt above the roof line in the 1930s, there are two narrow chimneys in the rear part of the building – a brick chimney that pierces the east roof slope of the outer northeast ell, and a concrete-block chimney in the center of the rear 20th century addition.



The house stands back from the north side of Harrington Avenue, close to the crest of a hill on a 15.22-acre property called “Harrington Park,” above the south bank of the Assabet River. With the exception of a small truck farm just to the west and two late-19th century houses, the immediate surrounding area consists of a neighborhood of mid- to late-20th century dwellings.

The house is sided with wood clapboards and roofed with asphalt shingles. A large granite millstone serves as a door stoop. The window openings at the primary elevations have the proportions of 6-over-9 sash (Greek Revival era) but most contain 20th century 2-over-2 sash. A 6-over-9 window centered under the north gable peak of the inner ell is the earliest window in the house and may date to the 1827 rebuilding.

There is a full-height cellar under the main house and part of the northeast ell. There is a fieldstone foundation and the cellar contains a circular fieldstone-lined well.

Although the house has 18th century origins, a makeover in the 1820s lent it its Federal style form, proportion and detailing. A second renovation in the 1840s added Greek Revival features, and updates at the end of the 19th century included Itali-



anate details. This evolution of stylistic features is often observed in historic properties as generations of owners modified their houses to reflect contemporary tastes. A detailed description of the exterior and interior features of the house, as well as its developmental history, can be found in the National Register of Historic Places Nomination, which is included as an appendix to this report.

CHARACTER DEFINING FEATURES

Every old building has a distinctive identity and character. Character-defining features are the significant observable and experiential aspects of a building that define its architectural power and personality. These are the features that should be retained in any restoration or rehabilitation scheme.

Character-defining elements include the overall shape of the building and its materials, craftsmanship, decorative details and interior spaces and features, as well as the unique aspects of its site and environment. They are critically important considerations whenever building work is contemplated. Inappropriate changes to historic features can undermine the historical and architectural significance of the building, sometimes irreparably.

This survey of the Wheeler-Harrington House identifies the elements that contribute to the unique character of the original building and its site. The bulleted items listed in this section should be considered important aspects of the historic nature of the building and changes to them should be made only after careful consideration.

EXTERIOR

Setting: *The topography, population density and other influences that are noteworthy to the property.*

- Located in a natural setting of 15.22 acres of open meadows, fields, and woods overlooking the Assabet River.

Shape: *The form of the building. The massing that gives the initial visual impression of the structure.*

- Two-story rectangular plan structure with a stepped rectangular ell at the northeast corner and a parallel addition at the north wall that projects west beyond the main building.

Roof and Roof Features: *Typically the most dominant element of a building. Often the element that most informs the shape of the building.*

- Gable roofs at the main building and northeast ell.
- Shed roofs at the north kitchen addition and the east porch.



Intersecting gable and shed roofs.

■

Openings: *Windows and doors. These often reflect the hallmark features of specific architectural styles.*

- Symmetrical window and door placement at the south, east and west elevations.
- 2-over-2 sash (ca. 1890-1910) in openings proportioned for 6-over-9 sash (ca. 1840).
- 6-over-9 window centered under the north gable of the inner northeast ell probably dating to 1827 renovation.
- Full-length ca. 1840 Greek Revival sidelights at main entry.
- Paneled front door ca. 1870s-1880s.



Gable endwall showing rake boards, eave returns and cornerboards. Note 2-over-2 window at peak and 6-over-6 window over porch roof.

Trim and Secondary Features: *Casings at windows and doors, moldings, cornices, watertables and other additive features.*

- Gable endwall roof trim consisting of Greek Revival-era rake board, eave returns and crown molding.
- Molded crowns on the first story windows.
- Italianate door hood at main entry ca. 1870s-1880s..
- Carved porch posts.
- Narrow cornerboards.
- Early skivved (tapered) and lapped clapboards.
- Wide watertable above fieldstone foundation.



Early skivved (tapered) and lapped clapboards.



Left to right: Italianate door hood with scroll brackets and incised ornament; turned porch posts with carved brackets, 2-over-2 sash with molded crown, shutter dogs and wooden storm window; scroll bracket (left) and full-length sidelight at main entry.

Materials: *The visible kit of parts that comprise the exterior envelope of the buildings.*

- Wood (clapboards, windows, doors and trim).
- Glass lights.
- Fieldstone.
- Wrought iron hardware including door hinges, handles and latches.

INTERIOR

Individual Spaces: *Individual spaces that are character-defining.*

- The single-pile floor plan and room configurations and relationships.

Features & Details

- Wide plank wood flooring.
- Woodwork including door moldings; dadoses; stairway rails, balusters, and skirtboards; fireplace surrounds.
- Exposed framing.
- Paneled wood doors.
- Wallpaper remnants.
- Door hardware and hinges.



Pegged joint in attic framing.



Ceiling framing in east room.



Left to right: wood dado and paneled door, stairway skirtboard and railing, wallpaper remnants at front stair.



EXISTING CONDITIONS & TREATMENT RECOMMENDATIONS



South elevation (facade).



North elevation.



East elevation.



West elevation.

The existing conditions and treatment recommendations section of the report provides a brief description of building elements grouped by type and location. The description is followed by treatment recommendations. The recommendations begin with a priority designation which identifies the urgency of the recommended treatment and then provides a short narrative of the suggested work. Priority is broken down as described below. Cost estimates for the treatment recommendations appear later in this section.

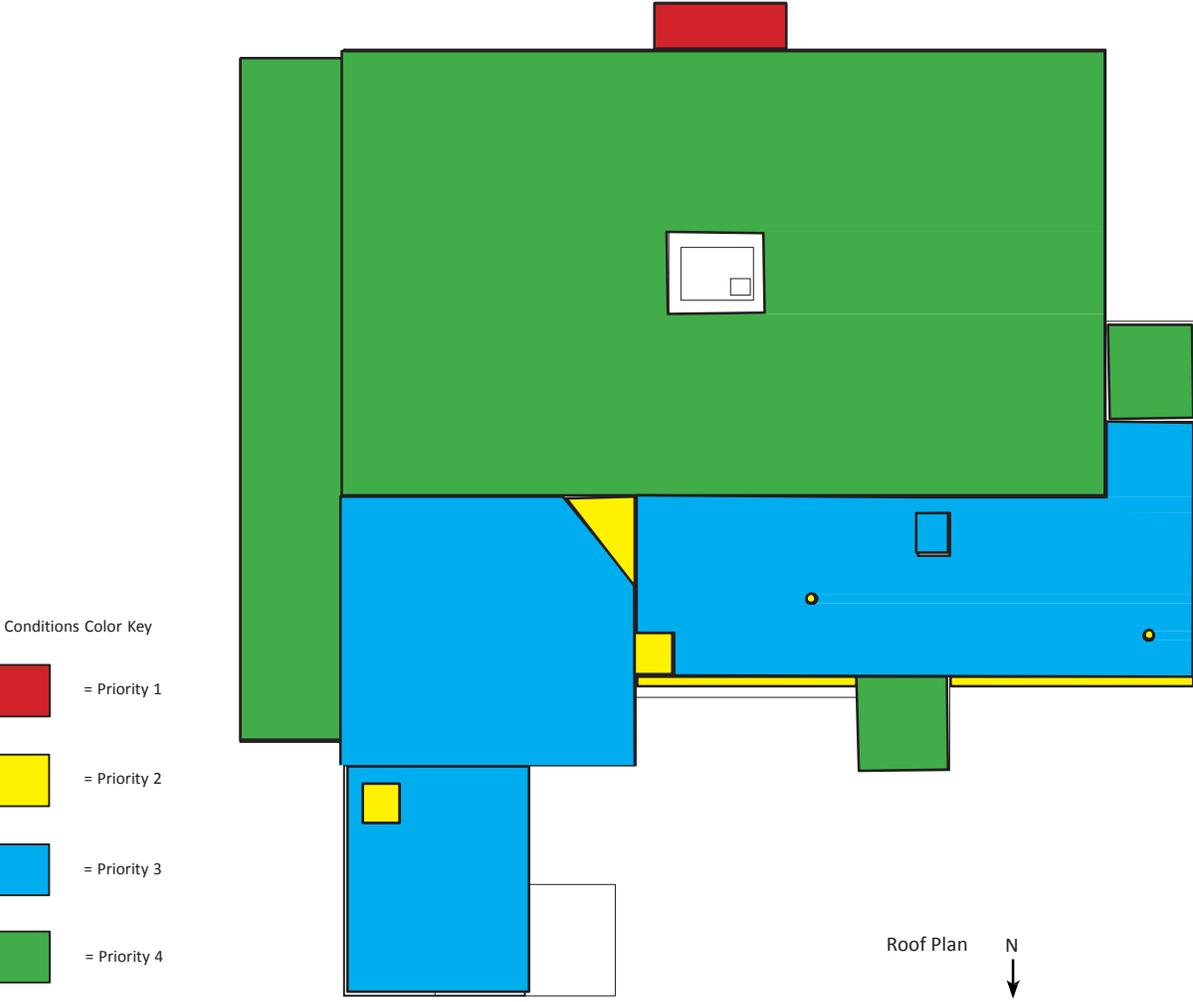
Priority 1 = Repair immediately.

Priority 2 = Repair within 1 year.

Priority 3 = Repair within 5 years.

Priority 4 = Repair or replace within 10 years.

Priority 5 = Continue regular maintenance.



EXTERIOR

Roof & Chimneys

The Wheeler Harrington house roofs consist of a main gable and two minor gables over the old kitchen and bath on the north end of the west elevation. The kitchen ell has a shed roof sloping down toward the west. The Victorian porch has a shallow hip roof. All roofs are three-tab asphalt shingles of varying vintage. There is heat trace cable along the gutter line of the kitchen wing shed roof.

Recommendations

- Priority 2: The roof to wall intersection of the old bathroom gable and the old kitchen exterior wall is buttered with roofing cement. No flashing is visible at this vulnerable location and the interior shows past evidence of leaking along this joint. Remove the cement and sealant, inspect sheathing and siding for sound material, and replace anything soft or deteriorated. Install proper stepped flashing.
- Priority 2: Clapboards appear deteriorated at the roof-to-wall intersection of the old kitchen gable and the main block of the house. Clapboards are unevenly trimmed. Clapboards should be carefully removed, new step flashing with an 8-inch return up the wall installed, and the clapboards reinstalled with the edges closest to the roof neatly cut to give 1-1/2 inches of clear space between the clapboard edge and the roofing material. Any raw wood should be primed and painted.
- Priority 2: A piece of sheet metal flashing is tacked to the east end of the wood gutter along the kitchen shed. This is protecting the northwest corner of the old kitchen ell where it meets the roof. The corner board and clapboards should be carefully removed, the old kitchen ell wall flashed up 8 inches with copper, and then the corner wrapped with counter flashing. Finally, the siding and corner boards should be reinstalled neatly cut to give 1-1/2 inches of clear space between the clapboard edge and the roofing material. Any raw wood should be primed and painted.



Gables at north end of west elevation.



Heat trace cable along kitchen wing shed roof.



Sheet metal flashing tacked to wood gutter.

- Priority 3: The three-tab asphalt shingles on the kitchen shed roof and the old bathroom gable will require replacement sooner than the other roof shingles. When they are replaced, consider wood shingles as a more historically appropriate material and install ice and water membrane along the eave, ridge and rake lines.
- Priority 4: The three-tab asphalt shingles on the main gable, east porch and door awnings appear to have many more years of use. When they are replaced, consider wood shingles as a more historically appropriate material and install ice and water membrane along the eave, ridge and rake lines.
- Priority 4: The eave returns at the main gable are clad in asphalt shingles. The shingles appear to be in good condition. Adjacent rake molding and eave returns have mitered joints vulnerable to water; consider replacing the asphalt shingle with copper flashing for longer life and improved protection of the adjacent wood joinery. Although listed as Priority 4, this work might be done at the same time as the front entry hood since the proper skilled craftsmen will be on site.
- Restoration Recommendation: When roof replacement is done at the gable and shed roofs, use Alaskan yellow cedar shingles as a more historically appropriate material.
- Restoration Recommendation: When roof replacement is done at the east porch, use lock seam copper as a more historically appropriate material.

NOTE: When considering alternatives to historic roofing materials for economic reasons, we suggest consulting with the Sudbury Historic Districts Commission on appropriate treatments.

The main entry door has a bracketed hood with a shallow hip roof. This roof is covered with several layers of sheet metal flashing and has a wooden rainwater collection box perched across it.

Recommendations

- Priority 1: Remove the layered sheet metal flashing and water catching trough. Remove roofing material and repair roof sheathing. Install new flat seam copper over felt and high temperature underlayment. Design with a shallow gutter and outlet to divert roof run-off to downspout.



Asphalt shingles at the main house gable (above) have more years of service than those on the kitchen shed roof.



Asphalt-shingled eave return at main gable.



Sheet metal flashing and water catching trough (arrow) at main entry door hood.

The exterior kitchen door, the mudroom exterior door and the exterior door to the old bathroom door have low slope awning roofs with asphalt shingles. These do not appear to be historic but the convenience of their design seems clear.

Recommendations

- Priority 4: These awning roofs are not historic but do keep rain off the entryways. The slope of the awnings is very slight at the mudroom and old bathroom doors and flat seam metal might be considered a more historically appropriate material. The kitchen entry awning is more visible. If the gable is being redone with wood shingle it would be appropriate to use wood shingle for the kitchen entry awning.

A brick chimney pierces the center of the main gable ridge and a second brick chimney rises out of the northeast corner of the old bathroom. A concrete block furnace chimney rises through the kitchen wing shed roof.

Recommendations

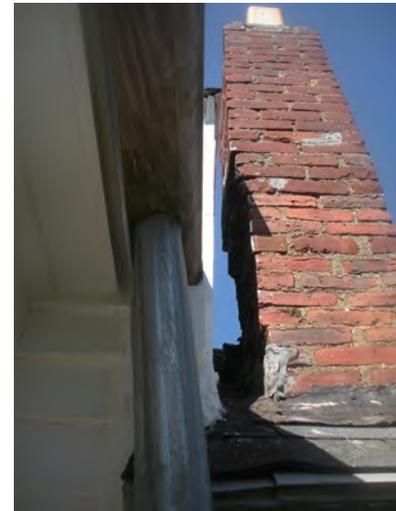
- Priority 2: The rear brick chimney mortar joints and cement cap wash are failing. The joints should be repointed with a moderately soft mortar and the wash at the top replaced with a durable mortar-cement wash.
- Priority 2: Flashing at the concrete block chimney and the rear brick chimney is liberally covered with roofing cement. The cement may have been a suitable stop gap but it conceals potential leak sources. The cement should be removed and the base flashing and counter flashing at the two chimneys replaced.
- Priority 3: It appears the concrete block chimney is capped and not used for venting. Consider removing the stack down to the basement. This will free up some space in the mudroom and eliminate a source of historic leaks.



Awning roof over the exterior kitchen door.



The main gable chimney at top left, cast iron vent stack at lower left, and concrete block chimney at right.



The rear brick chimney has failed mortar joints.

Two cast iron vent stacks for the modern restroom and kitchen plumbing pierce the shed roof.

Recommendations

- Priority 2: The base of the vent stacks is liberally covered with roofing cement. The cement should be removed and the vent stacks should have properly formed vent flashing installed.

Roof Water Run-off Management

The inventive roof gutter system at the house is not historic and is likely the first gutter system the house has had. Introduced in the late 20th century, the system consists of metal double-bead mill finished metal gutters at the long edge of the Victorian porch and at each of the door awnings. Wood ogee gutters are hung along the kitchen wing, on the east wall of the old sink room, and at the sides of the Victorian porch. There are no gutters on the eaves of the main gable.

The gutters are supported on wood brackets so they do not damage historic eave and rake trim and can be easily removed without extensive damage to the house. The gutters drain into galvanized round downspouts. Along the sides and rear of the house the downspouts empty into buried pvc piping that is elbowed to direct water away from the house and runs to daylight downslope from the house.

Since there are no gutters on the main gable at the rear, run-off is collected at the kitchen shed roof gutter and the gutters along the eaves of the northeast kitchen addition and old sink room gables. A drip line along the ground is created at the front of the house by a wood trough pitched to a pvc outlet that elbows after leaving the trough and runs to daylight in the line of lilacs. The bed of the trough, which is lined with rounded stones, is interrupted by the millstone stoop at the front entry. A similar wood trough is mounted along the drip line on top of the entry hood and drains to a round metal downspout that empties into the west trough on the ground. A gutter from the Victorian porch empties via a downspout into the east drip line trough.

Right: Stone-filled wood trough for water collection at the drip line. Note millstone stoop at entry.



Wood and metal gutters meet at the porch roof on the east elevation.



Wood gutter along kitchen wing.



Although not historic, the gutter system contributes to the long-term preservation of the house.

Recommendations

- Priority 1: Remove trough from front door hood, incorporate gutter into entry hood re-roofing project, and install downspout on west side.
- Priority 2: The fascia board behind the wood gutter at the kitchen is looking warn. Remove the wooden gutter, replace the fascia (primed and painted front and back). Replace the wood gutter.



Wood trough over entry door hood.



South Elevation

Conditions Color Key

-  = Priority 1
-  = Priority 2
-  = Priority 3
-  = Priority 4

South Elevation

The façade of the Wheeler Harrington House faces south, a conventional configuration for 18th century houses. Although there are Victorian details at the door hood and the window sash are 19th century 2-over-2, the massing, window distribution and center chimney mass clearly convey the 18th century roots of the house. The second floor easternmost window is an early 6-over-6 configuration.

The east porch is of 19th century vintage and tells a narrative of modification and change as does the projecting face wall of the shed-roofed kitchen wing. The wood windows are protected by wood storm windows and each window frame has hardware for attaching shutters, although not all shutter dogs remain. There are no shutters mounted on the building.

There is deep paint build-up on the clapboards, wood trim at the cornice, corner boards and door and window surrounds on the façade. There is considerably less paint build-up at the kitchen. From the first floor window sills down to the foundation the siding and trim is replacement and has fewer layers of paint.

The windows are well maintained and glazed. The woodwork appears to be in good condition although paint layers may conceal some deterioration.

The rubble foundation projects just slightly beyond the water table at either side of the main door. The sidelights of the door are protected by sheets of weathered, clear acrylic.

Recommendations

- Priority 1: Remove the acrylic sheets at the front door side lites. Paint and reglaze side lites. Make new wood frames for protective glazing and install frames with clips for easy removal.
- Priority 2: The mortar wash around the basement window to the right of the main entry is cracked and failing. Chip out existing mortar and place new wash and repoint around opening.



South elevation (facade) with projecting face wall of kitchen wing at left.



Lilac hedge at facade. Note early 6-over-6 window at upper right.



Heavy paint build-up at upper clapboards and window casing. Note shutter dogs.

- Priority 3: The façade will require repainting in five to seven years. Samples should be taken of paint layers to establish a paint history for dating purposes. Consideration of complete paint removal should be given in this or the next round of painting. This will allow exposure of wood to determine conditions and reveal detail that is obscured by the thick paint accumulation.
- Restoration Recommendation: Wood shutter reinstallation. (Not a requirement for preservation.) If elected, this work would achieve a 19th century appearance which is in keeping with the windows and ornament at the porch and the door hood.



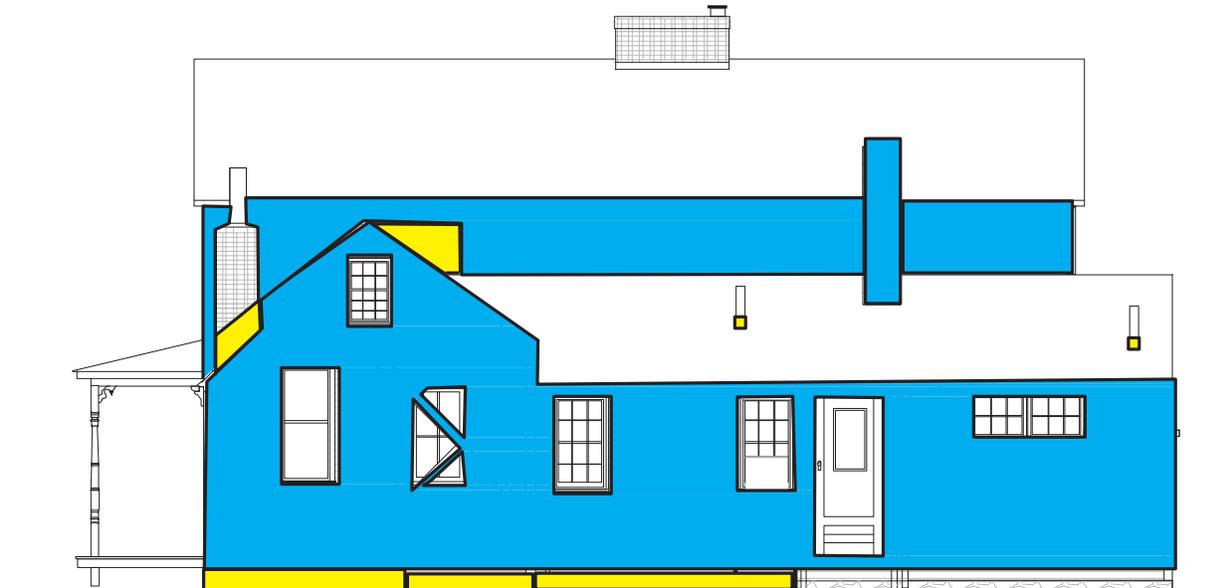
Sidelight at main entry.



North elevation.



Trapped dryer lint at mudroom window.



North elevation

North Elevation

This is the most eclectic elevation of the house with its shed-roofed kitchen wing that extends beyond the west wall of the main block, the two gabled extensions of the old sink room, the northeast kitchen addition off the northeast corner of the north wall, and the side porch on the east wall of the main block. The shed roof and the northeast kitchen addition cover most of the north elevation of the main block.

The windows are wood. Those in the kitchen wing are modern single pane divided lites. The other windows are single pane, 2-over-2 wood windows. The windows are in good condition. The window at the mudroom is filled with dryer lint between the fixed clear acrylic panel and the sash due to a wood panel infill at the lower sash opening containing the dryer vent. All windows have aluminum storm windows.

Conditions Color Key

	= Priority 1
	= Priority 2
	= Priority 3
	= Priority 4

The door into the mudroom is protected by a wood storm door with a single lite that aligns with the lites in the door into the mudroom.

The clapboards and trim are in generally good condition. The thickness of the paint layering varies with the section of the building. The heaviest is at the main block, closely followed by the northeast kitchen addition and old sink room additions. The Victorian porch has more paint than the kitchen wing.

The kitchen wing sits on a concrete block foundation. The other spaces rest on mortared rubble foundations.

Recommendations

- Priority 2: The ground at the interior corner between the old sink room and the northeast kitchen addition gable takes on a lot of water. Discuss drainage options with the landscape architect and a civil engineer.
- Priority 2: Repoint the rubble foundations at the old sink room and the northeast kitchen addition.
- Priority 3: The elevation will require repainting in five to seven years. Samples should be taken of paint layers to establish a paint history for dating purposes. Consideration of complete paint removal should be given in this or the next round of painting. This will allow exposure of wood to determine conditions and reveal detail that is obscured by the thick paint accumulation.



Ground at corner of old sink room and kitchen addition is vulnerable to water.



Rubble foundation at northeast kitchen addition.



East elevation

East Elevation

This elevation most resembles a mid-19th century farm house. The porch with its ornate brackets spans along the main block and overlaps the length of the northeast kitchen addition at its east elevation. The stepped roof line starting at the main gable ridge and dropping with each ell illustrates a quintessentially New England farmhouse aesthetic.

The details at the porch and the 2-over-2 wood windows are all 19th century changes. The window at the old sink room has an aluminum storm window while all other storms on the elevation are wood. The attic window storm has been modified with added depth to the bottom rail. The modification allows the storm window to be bolted into position along the bottom rail, ensuring attachment of the storm window. The second floor window on the gable end has different trim than the other windows and is 6-over-6 configuration; architectural historian Anne Forbes stated that this is the oldest window at the house.

A Victorian two-lite door opens onto the porch from the northeast kitchen addition. A wooden storm door protects the Victorian door from winter weather.

Conditions Color Key

	= Priority 1
	= Priority 2
	= Priority 3
	= Priority 4

There is an area of bulging clapboards to the south of the second floor window at the gable end, possibly caused by past water infiltration or a framing shift.

There is deep paint build-up on the clapboards, wood trim at the cornice, corner boards, and door and window surrounds. From the first floor window sills down to the foundation of the old sink room the siding and trim is replacement and has much less paint build-up.

The electrical service enters the building at the southeast corner of the porch. Two large meters and conduit are mounted to the building. Power comes in from the street underground.

The porch floorboards are laid perpendicular to the house. The boards have a clear finish and are worn at the outside edge. The porch posts have square bases and turned round middle portions that are squared off again toward the top allowing the carved brackets framing the top to abut flat wood. The base of the northernmost post was replaced. The new piece was scarfed into the existing post. Porch posts rest on dry laid rubble footings.

Recommendations

- Priority 1: Rake trim has broken at the south gable return on the main block. Remove broken piece, insert blocking, manufacture new piece with matching profile, prime all sides, and install with stainless steel finish fasteners.
- Priority 2: Carefully remove the bulging clapboards to the south of the second floor window at the gable end to determine cause for the bulge. Reinstall after remedial action (to be determined).
- Priority 2: Repoint the rubble foundations at the old sink room.
- Priority 3: The elevation will require repainting in five to seven years. Samples should be taken of paint layers to establish a paint history for dating purposes. Consideration of complete paint removal should be given in this or the next round of painting. This will allow exposure of wood to determine conditions and reveal detail that is obscured by the thick paint accumulation.



Wood boards at porch floor perimeter are worn.



Broken rake trim at south gable return on main block.



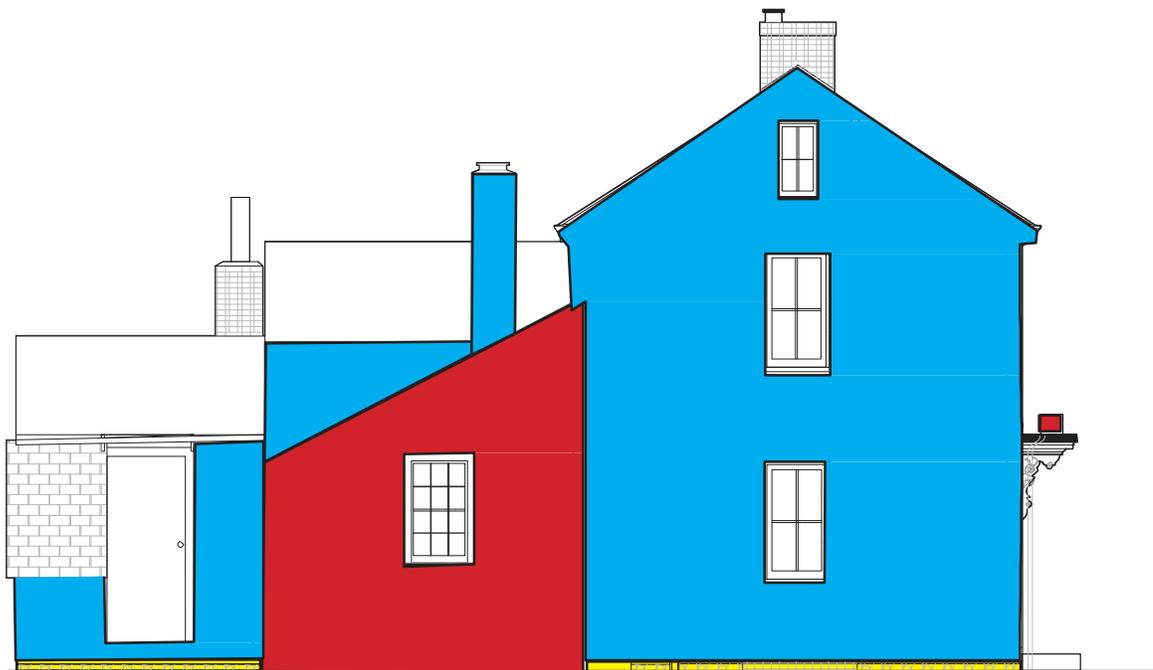
Porch at east elevation. Note early 6-over-6 window (with air conditioner), old skived and lapped clapboards above porch roof, and modified bottom rail at attic storm window. Bulging clapboards are circled.



Kitchen addition ell (center) has a Victorian 2-lite door and 2-over-2 window. Sink room ell is to the right.



Clear finished perpendicular floor boards at porch.



West elevation

Conditions Color Key

	= Priority 1		= Priority 3
	= Priority 2		= Priority 4

West Elevation

The gable end of the main block has the oldest extant clapboards on the house. The narrow exposure, short length and deep scarf joint are telltales of old manufacture. The 2-over-2 wood windows are all 19th century changes; the 6-over-6 kitchen wing window is modern. Windows on the main block are protected by wooden storm windows.

The main block has a rubble stone foundations. The shed-roofed kitchen wing has a concrete block foundation. The grade at the west end of the main block is nearly even with the water table pitching down slightly toward the foundation. There is an incomplete cement wash along the main gable foundation. There is an opening in the foundation below and to the right of the gable end first story window. It is covered with a board that has a couple of rows of asphalt shingles on top.

The west elevation of the sink room ell at the northeast corner of the house has a rubble foundation. The door into the old sink room is protected by a wood storm door.

Recommendations

- Priority 1: Complete repairs to siding, woodwork and windowsill at west wall of kitchen wing.
- Priority 2: Repoint the rubble foundations at the gable end of the main block, adjust local grade to create a swale four feet out from the foundation, and adjust the stoop into the kitchen accordingly.
- Priority 2: Repoint the rubble foundations at the sink room ell.
- Priority 3: The elevation at the main block and kitchen wing will require repainting in five to seven years. Samples should be taken of paint layers to establish a paint history for dating purposes. Consideration of complete paint removal should be given in this or the next round of painting. This will allow exposure of wood to determine conditions and reveal detail that is obscured by the thick paint accumulation.



Grade at the west end of main block slopes slightly towards the foundation.

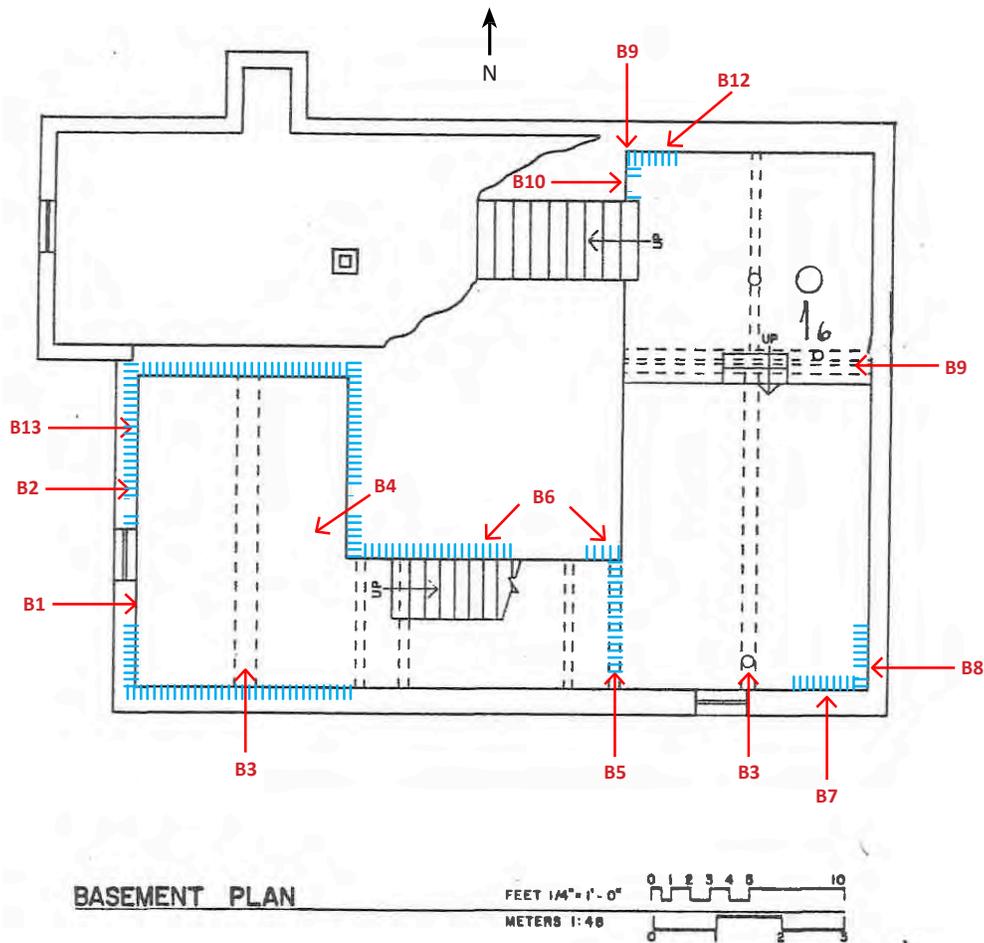


Grade at the stoop is higher than the lowest clapboard.



West elevation of sink room ell.

Red locations refer to recommendations in the accompanying text and the structural conditions report.



Floor plan above was included in the 1980 report on the Wheeler-Harrington House prepared by the Society for the Preservation of New England Antiquities.

INTERIOR

Basement

The main block and northeast kitchen addition have a full basement. The 1960s shed-roofed kitchen wing has a crawlspace accessed from the northeast kitchen addition basement. There is no opening into the old sink room space.

The basement floor is in three levels, with the lowest beneath the northeast kitchen addition, a higher floor in the main block, and finally a shallow crawl space beneath the kitchen wing. The floor is dirt with paths of planks laid down against rising damp and water infiltration. Walls in the old portions are rubble stone with traces of whitewash on some sections.

The massive fieldstone base for the chimney is centered in the basement. Concrete block foundation walls are visible under the kitchen. The old sections are punctuated with posts of various vintage to support the floor framing. A stack of concrete blocks is piled roughly in the center of the kitchen wing basement.

A stone lined well with a wooden cover is situated in the floor of the northeast kitchen addition basement toward the northeast corner. Floor joists and beams comprise the ceiling of the old parts of the basement. Dimensional lumber and floor sheathing is visible at the kitchen wing.

A new electrical heating system is installed on a pad along the east wall of the main block basement. Porcelain fixtures provide lighting.

Recommendations

The recommendations that follow were made in the structural engineering assessment that is included in its entirety on page 57 of this report. They reference the “B” locations on the floor plan on the facing page. Please refer to the Structures North report for detailed observations and recommendations.



Post and beam in basement.



Whitewashed rubble stone foundation.

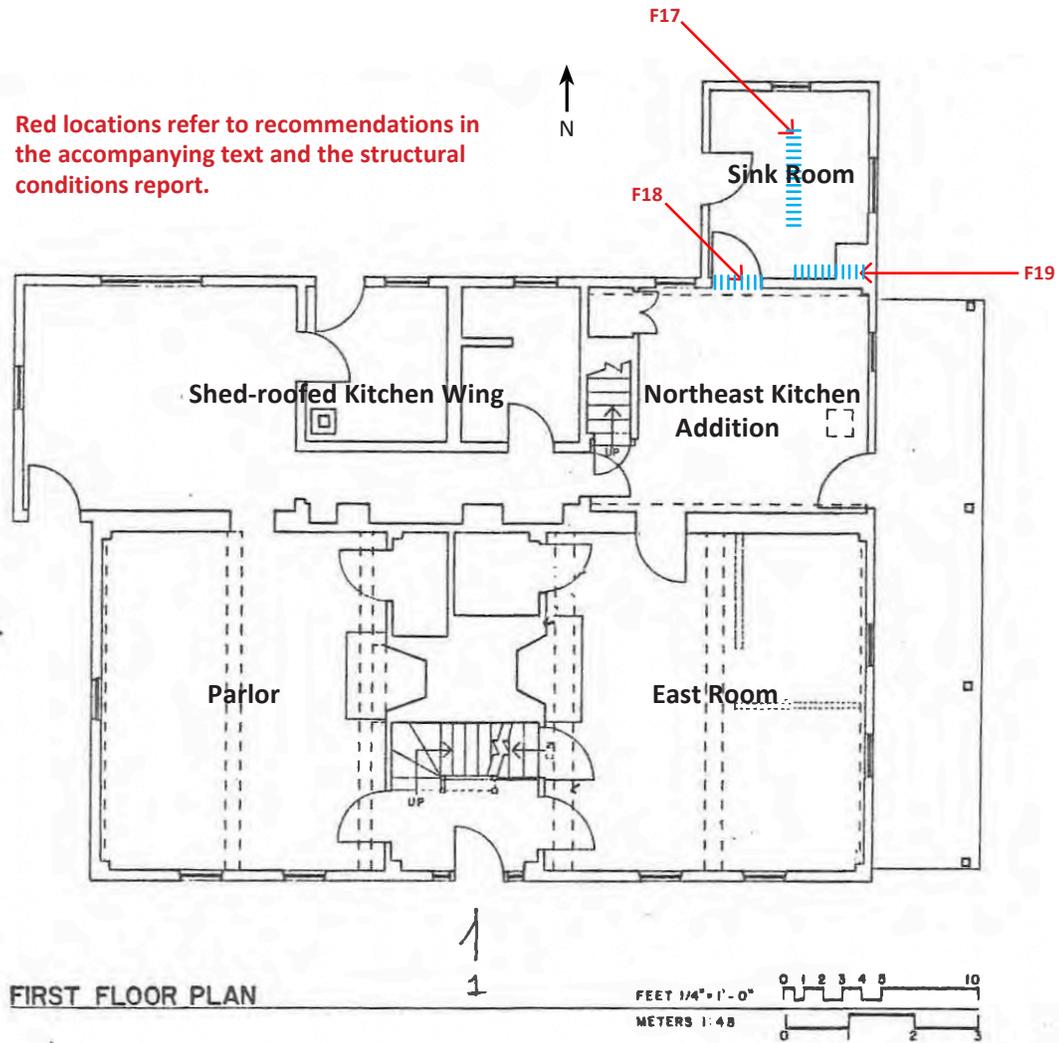


Crawl space under 1960s kitchen.

- B1: Monitor the bulge in the west stone foundation and repair/rebuild if it gets larger.
- B2: Cut and point open and cracked mortar joints on stone walls and chimney base.
- B3: Treat exposed beams in the east and west basement bays and affected joists for beetle damage. Use borate treatment and reinforce members structurally if needed.
- B4: Replace rotted joist OR borate treat/sister the joist between west bay central beam and chimney.
- B5: Treat beetle and rot damage along south wall at the east and west central beams and east chimney girt. Repair crushed beam with Dutchmen and review the bearing load atop the post. Analyze chimney beam and assist with intermediate post if needed. Borate treat all wood.
- B6: Cut and point cracked mortar joints at the foundation wall of the chimney along the stairs. Monitor for new cracks; if movement continues, reconstruct, bolster or repair masonry.
- B7: Remove foam insulation at southeast corner, the only area where dampness was noted. Point all mortar joints.
- B8: Cut and point cracked mortar joints on the east wall in the southeast corner. Monitor for re-cracking.
- B9: Analyze rot damaged sill beam and sister dividing main house from addition at northeast corner. Reinforce/repair if needed.
- B10: Cut and cracked mortar joints in stone masonry at west wall in northeast addition. Monitor for re-cracking.
- B12: Repair the damaged sill at the north wall with Dutchmen. Borate treat and monitor for future deterioration.



Stone lined well at northeast kitchen addition.



Floor plan above was included in a 1980 report on the Wheeler-Harrington House produced by the Society for the Preservation of New England Antiquities.

First Floor

The interior first floor rooms in the main block have wide plank floors and plaster walls. Except at the stairway, where the ceiling is plaster, the ceilings are exposed beams, joists and planking. At the northeast kitchen addition the floor is wooden strips except for a rectangle of 9-inch composition tiles at the door into the shed-roofed kitchen wing. The walls and ceiling are plastered. In the sink room the materials are the same as in the adjacent room. The flooring in the shed-roofed kitchen wing is sheet material except under the washer and dryer in the mud room, which has a ½-inch cement material layer atop the floor framing.

The new kitchen walls and the south wall of the hall are vertical wood panels. All other walls are plaster except at the tub/shower in the bathroom, which is tile. Ceilings throughout the addition are plastered. The utility room ceiling is heavily patched with wall board panels screwed over historic cracking.

Baseboard heat is distributed throughout the first floor except at the northeast kitchen addition and the old sink room. Appliances in the kitchen date to the mid-20th century but are functional. Electricity is fed to receptacles throughout. The only overhead lighting is in the shed-roofed kitchen wing.

Recommendations

- Priority 2/F19: Repair ceiling and wall plaster in old sink room after roofing and flashing repairs have been completed. Use wood lath and layered plaster build up. Paint when complete.
- Priority 2/F18: In conjunction with sill work that may be required, close the gap between the northeast kitchen addition and the old sink room at the threshold.
- Priority 2/F17: Monitor deflected floor board in old sink room and replace if it worsens.
- Priority 2: Install through-wall vent for dryer.



Plaster walls and exposed framing at ceiling in parlor.



Damaged ceiling and wall plaster in the sink room.



Wood paneling in shed-roofed kitchen wing.

- Priority 2: Reset displaced brick in the 20th century mantelpiece in the East Room in the main block. Clean chimney flue. Adjust damper for smooth operation and good sealing.
- Priority 3: Replace ceiling in utility room.

The structural assessment report recommended that the following areas of the first floor be monitored for change:

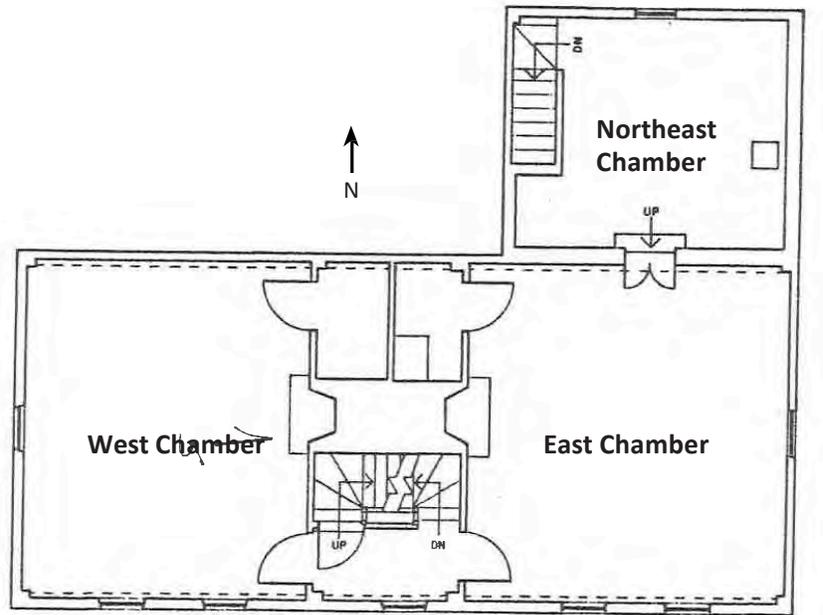
- Sloping floors in the parlor.
- Damaged floor planks at the ceiling in the parlor.
- Deflected summer beam in the parlor.
- Plaster cracks in the parlor south of the fireplace.
- Wall and ceiling cracks in the entry foyer.
- Twisted plank wall and open joints in wood panels and floor planks between entry foyer and east room.
- Cracks above entrance and basement doors in East Room.
- Floor settlement east of the fireplace in the east room.
- Plaster cracks in south and east walls.
- Deflected second floor framing in the east room.
- Damaged, bulging plaster in the north wall of the east room.
- Twisted (at north end) summer beam in the east room.
- Sloping floor and ceiling along southern wall and original exterior wall in northeast kitchen addition.
- Upward angled floors at the north and west doors at stone foundation walls in northeast kitchen Addition. Stairs to second floor slope away from supporting wall.



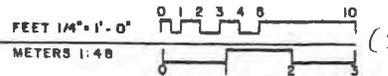
Front stair hall.



Back stair.



SECOND FLOOR PLAN



Floor plan above was included in a 1980 report on the Wheeler-Harrington House produced by the Society for the Preservation of New England Antiquities.

Second Floor

There are three rooms on the second floor and two stairways. The chambers in the main block have wide plank floors that are painted in the west chamber and unfinished in the east chamber. These planks are layered over another set of planks which show as the ceilings of the rooms below. Walls and ceilings are plaster.

The ceilings of the east chamber show marks from old partitions. The ceiling in the west chamber has historic cracks that have been repaired. The second floor room of the northeast kitchen addition (the northeast chamber) is several inches lower than the adjacent rooms. The floor is painted plank with plaster walls and ceiling.

Baseboard heat is distributed through the second floor. Electricity is fed to receptacles throughout.

Recommendations

- Priority 2: Repaint ceiling of west chamber. Confirm prior layers on ceiling are not calcimine.
- Priority 2: Patch cracked plaster on north wall of east chamber.

The structural assessment report recommended that the following areas of the second floor be monitored for change:

- Settled floor in center of west chamber.
- Cracks in all walls and open joints in finish trim at both ends of north wall in west chamber. Bulge in plaster near fireplace and cracks above door to hallway on both sides wall.
- Settlement of main stairs between first and second floors and worn treads.
- Plaster cracks at bottom of attic stairs between first and second floors.
- Cracks in west wall of east chamber.
- Cracks and sagging towards center of south wall of east chamber.



Note faint ceiling marks in the east chamber denoting old partitions.



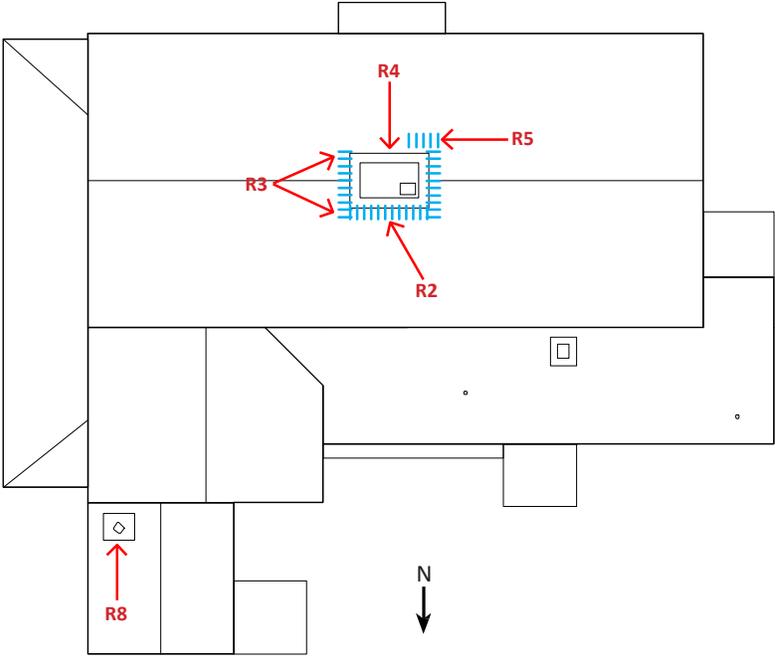
Closed fireplace in west chamber.



Northeast chamber is several inches lower than adjacent rooms.



- Sagging floor in front of hearth in west chamber.
- Settlement of hearth in east chamber.
- Cracking around door and shift of door surround in north wall of east chamber.
- Upward and downward sloping floor in northeast chamber.
- Ceiling cracks in northeast chamber.



Roof Plan

Attic & Roof

There is limited head clearance in the attic. The underside of the ridge beam is less than six feet above the floor and the roof pitches quickly and steeply, so headroom quickly vanishes. The floor is plank. The ceiling is the exposed underside of roof sheathing and the rafters and purlins framing the roof. The brick chimney rises through the center of the attic. There are windows at either gable end. Several overhead porcelain light fixtures provide illumination.



Attic framing.

The structural assessment report made the following observations and treatment recommendations:

- R2: Cut and point cracks in brick masonry and bulged area of exposed brick chimney on its south face.
- R3: There is evidence of water infiltration (cracked, spalled and crumbling bricks) on all sides of the chimney. Review/repair flashing as needed, replace worst of spalled bricks, and reset any cracked and loose masonry.
- R4: There is a hole into the flue on the north face of the chimney. Fill in the opening in the brick masonry.
- R5: Borate treat and sister or replace the damaged header at the north side of the chimney.
- R8: Cut and point eroded mortar joints at chimney at northeast kitchen addition. Check flashing to make sure that damage is limited to above the roof.



Eroded mortar joints at chimney at northeast kitchen addition.

The structural assessment report recommended that the following areas of the attic and roof be monitored for change:

- Sagging stairs and cracked walls around landing to the attic.
- Sloping attic floor on east side of chimney.
- Sagging roof ridge line on both sides of chimney towards center of each framing bay.



REGULATORY REVIEW ANALYSIS

Town of Concord Zoning By-Law

The Wheeler Harrington House at 249 Harrington Avenue is set well back from the road atop a bluff that rises gradually from the roadway and rather steeply above the floodplain and the course of the Assabet River.

The house is on the southern side of the fifteen acre property, nearly centered on the east-west midpoint. Wetlands, FEMA flood plain demarcations and floodplain conservation district categories overlap on the east half and a quarter of the north side of the lot, reducing the likelihood of building construction in that zone. The southwestern quarter of the lot is open space.

The property is owned by the Town of Concord and is listed as town conservation land. The house is listed as a historic property. Alterations to the house would be subject to the town demolition delay by-law and to review by the Concord Historical Commission regardless of the property's rather unique position of being actively monitored by the Commission as part of the requirements of its 1974 purchase from private owners.

The property is in the Residential B district. The following uses are allowed by right or by Special Permit (indicated by SP).

Extensive Uses

Forestry, Agriculture, Greenhouses –SP, Earth removal –SP, Conservation Use, Private Recreation – SP.

Residential Uses

Single family dwelling, Two Family or addition dwelling unit – SP, Residential Compound - SP, Residential Cluster Development – SP, Planned Residential Development – SP. Boarding House – SP.

Institutional Uses

Educational, Child care facility, Religious, Philanthropic – SP, Cemetery – SP, Lodge and club – SP.

Governmental and Utility Use

Town of Concord, Underground Utility, Above Ground Utility, Municipal Use not by the Town of Concord – SP

Continued use as conservation land may be supplemented by other allowed uses such as agriculture. All current uses conform to zoning for the Residential B district.

Due to the size of the lot (15.52 acres) and the location of the house, the minimum dimension regulations for lot area; front, side and rear yard setbacks; and frontage are all satisfied. The house ridge line is under the maximum height allowed for buildings in the district.

Building Code

The purpose of the building code is to establish minimum requirements to safeguard the public health, safety and general welfare; provide protection to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.

Continued Residential Use at the Wheeler-Harrington House

The building code has a separate section for residential properties like the Wheeler-Harrington House called the One and Two Family Residential Code. Code requirements are different for houses and for public buildings. It is assumed that a resident is familiar with his/her house and that there are a limited number of people living in the house. This results in less need for equipment like exit signs and emergency lighting.

The code for existing construction also applies to the house. In general, existing houses are not required to retroactively conform to the current building code except where existing health and safety conditions are considered hazardous by the local building official.

The building code for new construction would be referenced for any substantial renovation of the house or if an addition was contemplated.

Change of Use at the Wheeler-Harrington House

If the use of the Wheeler-Harrington House changes from a residence to some other use and it is open to the public, it would then fall under the base building code.

The base building code refers to all buildings that are not one and two family residences. The standards that apply to safeguard the public health, safety and general welfare provide protection to life and property from fire and other hazards attributed to the built environment. They also provide safety to fire fighters and emergency responders during emergency operations. These are more rigorous in the base code because it is assumed the building users are not as familiar with the structure as they would be if it served as a private house.

The base code section on existing buildings, the International Existing Building Code and its Massachusetts Amendments, would apply to the Wheeler-Harrington House if it changed in use from a single family residence to any other allowed use. Immediate upgrades would likely include fire alarm systems, the provision of restrooms, and changes to the historic structure to meet the higher floor bearing capacity required by the base code over what is allowed in the one and two family code.

Repairs and alterations would also trigger application of the building code. Repairs are considered partial replacements of existing materials and systems in kind. Alterations are categorized into levels describing the amount and scale of work involved.

If additions or significant reconfigurations of spaces are contemplated, the requirements for work in affected areas would be to conform largely to the building code for new construction, although there is some latitude for existing buildings. Should an addition or major alteration be contemplated, we recommend a consultation with the fire and building departments to help determine the local disposition toward such work.

There are no immediate plans to change the use of the Wheeler-Harrington House so there are no immediate building code requirements.

521 CMR: Rules and Regulations of the Massachusetts Architectural Access Board

There is no requirement to retroactively outfit the Wheeler-Harrington House for Universal Access and as long as it remains a private residence there is no code requirement that it be made accessible.

However, if there is a change in use from private residence to another use that is considered public – a visitor contact station, for example – the public spaces would be required to be made accessible. Note that the guidelines below describe a minimum standard. Exceeding these requirements is at the discretion of the owner.

Generally speaking, all new work including construction, reconstruction, alterations, remodeling, additions, and changes in use should conform to the access regulations. This means all additions, reconstruction, remodeling, and alterations or repairs to existing public buildings or facilities which require a building permit.

If the building permit value of the work being performed amounts to less than 30% of the assessed building value and less than \$100,000, only new work or renovated spaces would be required to comply.

If the work value is under 30% of the assessed building value but over \$100,000, the work must be made accessible and both an accessible entrance and rest room are required.

If the value of the work to be done is determined to be greater than 30% of the “full and fair cash value” of the building (or greater than \$100,980), the entire facility would have to be made fully accessible.

Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR 3.3.1 and do not count towards the 30% trigger. When performing exempted work, a memo stating the exempted work and its costs must be filed with the permit application or a separate building permit must be obtained. Exceptions not counting towards the 30% trigger include:

- Alteration work which is limited solely to electrical, mechanical, or plumbing systems, to abatement of hazardous materials, or to retrofit of automatic sprinklers, and does not involve the alteration of any elements or spaces required to be accessible under 521 CMR.
- Roof replacement or repair, window repair or replacement, repointing and masonry repair work.
- Work relating to septic system repairs, site utilities and landscaping.

However, if the above work alone or in concert with additional work exceeds the 30% trigger, then it is as if the work is not exempted. Note that the cost of work is tracked over a three year span, so phased projects may be cumulative.

We certainly encourage forward thinking about accessibility, but there is no present building code requirement for the house to be made accessible.

Uniform State Plumbing Code

Like other code requirements, the house is not required to retroactively meet the standards of the present code. As with other code sections, there is a difference between the requirements for a residence and other allowed uses.

Private rest rooms are allowed to be smaller and requirements for accessibility are not mandatory. Plumbing fixture water usage is more generous for a residential situation.

STRUCTURAL CONDITIONS ASSESSMENT

Stephanie Davis of Structures North Consulting Engineers conducted the structural engineering assessment of the building in April 2014 and prepared the following report. The report is concise but comprehensive and is included in its entirety in the following pages. There are several basement and attic repairs that should be completed soon but the house is in good condition.





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23 June 2014

Lynne Spencer
Spencer & Vogt Group
1 Thompson Square, Ste. 504
Charlestown, MA 02129

Reference: Wheeler Harrington House Conditions Report

Dear Lynne:

We have completed a visual survey at the Wheeler Harrington House in West Concord, MA. For the purposes of this report Harrington Avenue runs east-west with the main entrance being located on the south elevation.

General Description

The Wheeler-Harrington House is an historic timber framed two story house with multiple rear additions. The main house and the northeast addition have stone foundations, with the northeast addition basement being deeper and accessed by steps. The northwest addition is of modern concrete masonry units and its first floor framing of dimensional lumber is accessed by a crawlspace off of the northeast addition. The main house and northeast additions are constructed as timber frames with summer beams over the centers of the rooms and joists spanning from the beam to each wall. The roof of the main house is a rafter and purlin roof system that is reinforced with diagonal supports at the midspans of the purlins. The framing of the north addition was not accessible, nor was the roof or second floor framing of the northwest addition, being covered with finishes.

As is typical of houses of this period of construction, the summer beams are typically much larger than the joists they support, but span much longer distances under heavier loads.

If the structure is changed from residences to a museum or other use, the Code prescribed structural loading on the framing increases, and it is typically found that under the new uses loads that the summer beams and the joists in theory become overstressed in need of reinforcement. We usually find that the summer beams have less overall floor load capacity than the joists.

The Code also allows for posted occupancy and loading limits in controlled occupancy situations, such as museums, and it is therefore possible to minimize the actual loading and the required reinforcement. We often recommend that these be done on the upper floors of museums, as the minimization of visual impact of reinforcement is the greatest where structure or historic finishes are visually exposed from below. This still often requires the reinforcement of the summer beams, because of their long length, which can be completed from above with steel fitch plates set with adhesive in a groove in the

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centers of the summer beams, thus not changing the appearance of the framing from below. The occupancy is then limited by the strengths of the joists.

Because the framing of the first floor is typically not featured architecturally, and because it is often used as a staging area for assembling the limited size groups going upstairs, we typically recommend that the first floor framing be reinforced as needed to comply with full Code prescribed loading. This often done using added “sisters” members alongside the joists and added post supports to reduce the spans of beams.

If the structure remains only as a residence, these reinforcements would only be as required where the framing is damaged, in order to return the structure to a state of good repair, as described below.

Noted Building Conditions and Repair Recommendations

The following conditions were noted at the Wheeler Harrington House, for which we have the *following recommendations*:

Basement and First Floor Framing

- B1.** There is a bulge in the west stone foundation wall to the south of the basement window. Discussions with the residents indicated that the wall has been in this conditions for as long as they have been there, approximately 30 years, and they have not noticed and changes to its condition. *As the condition appears to be stable, we recommend that it be monitored for changes and repaired by rebuilding or grouting if the bulge gets larger.*
- B2.** In the west bay of the basement there are areas of open mortar joints on all of the stone walls and there are cracked mortar joints at the base of the chimney. Similarly damaged areas can be seen in the east bay, and in the stone walls of northeast addition. *The cracked mortar joints should be cut and pointed with a compatible mortar and the open mortar joints should filled with the same mortar.*
- B3.** There is beetle damage at both beams in the east and west basement bays and in some of the incoming joists. At some of these locations the holes are a bright color and look recent. *The exposed framing should be borate treated for insects and the affected members checked structurally and reinforced if needed.*
- B4.** A joist between the west bay central beam and the chimney is rotted. *The joist should be replaced in kind or borate treated and sistered.*

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- B5.** Along the south wall of the basement, there is beetle and rot damage to both the east and west bay central beams as well as to the east chimney girt. The damage to the west beam appears to be old damage. At the two eastern beams, posts have been added near the foundation wall to support their ends. The newer square post at the chimney girt appears to be slightly bent, though it is not clear if this is from irregular wood shrinkage or from overloading. There is some visible crushing of the beam above the post but this may be the result of insect damage as there are holes throughout the beam in this area. This beam is also twisted between the chimney and the outer wall. *The crushed beam end should be repaired with fitted dutchmen and the load on the post and the bearing stress atop the post reviewed. The chimney beam should be analyzed and assisted with an intermediate post if the beam span is too long of the end post load too high. All wood to remain should be borate treated.*
- B6.** Along the stairs, the foundation wall of the chimney has large cracks in the mortar joints at both ends. *The cracked mortar joints should be cut and pointed with a compatible mortar and the area monitored for new cracks which would indicate active movement in the masonry. If movement does continue, then some reconstruction, bolstering and/or repair of the masonry will be needed.*
- B7.** At the southeast corner of the basement there are openings in the mortar joints of the south wall that have been filled with insulation foam. The resident said that light was coming through the walls at these locations, thus the added foam. There still remain some joints that are open at the base of the wall and the wall, and this area is damp, which was not noted anywhere else in the basement. *The foam insulation should be removed and all of the mortar joints pointed with a compatible mortar.*
- B8.** Also in the southeast corner, there are cracks in the mortar joints on the east wall. *The cracked mortar joints should be cut and pointed with a compatible mortar and monitored for re-cracking.*
- B9.** At the old sill beam dividing the main house from the addition at the northeast corner there is rot damage on both the sill and its sister. An added post has been installed near the midspan of the sistered beam, which may have been to help compensate for this damage or to further reinforce the incoming beams. *The beam should be analyzed and additionally reinforced or repaired if needed.*
- B10.** There is a crack in the stone masonry west wall in the northeast addition. *The cracked mortar joints should be cut and pointed with a compatible mortar. The area should be monitored for re-cracking.*

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- B11.** The first floor framing at the northeast addition has been reinforced including at the old sill which is now a header over the opening into the northwest addition. The framing coming into the sill has been headed off with a new dimensional lumber beam to reduce the load on the sill. One of the joists near this area which has been sistered is twisted. *We assume that the condition of the original framing was taken into consideration when the reinforcement was completed and that no additional work is required in the area unless additional deterioration is noted.*
- B12.** There are two areas, at the northwest corner of the northeast addition and along the east wall of the basement, where according to the current resident of the house water used to enter the building but has stopped. At the northeast addition, the water infiltration apparently stopped after a low roof was installed at the bottom of the exterior wall to shed the water away from the building. At the east wall, the installation of the covered porch apparently stopped the water. The sill at the north wall is rotted where the water infiltration had occurred whereas, along the east wall the sill appears to be in good condition except near the southeast corner. *The damaged sill should be dutchman repaired. This type of repair includes the removal and fitted replacement of the damaged wood fiber.*
- B13.** There is small area of the sill which feels soft on the bottom where it is accessible on the west wall of the main house. *This is indicative of the starting of deterioration of the sill. We recommend that the area be tested with a resistance drill, a small spade tipped needle that measures the hardness of the wood fiber when advanced through it. If the wood is found to be damaged above the bottom face, the sill should be dutchman repaired, if it is found to be sound the area should be borate treated and then monitored for future deterioration.*

First Floor

- F1** The modern addition at the north of the main houses appears to be in good condition, the only noted condition was damage to the molding in the bathroom which is most likely due to the damp interior environment.
- F2** The west room of the original house has some slight sloping in to the floors, as is typical of structures of this age. *The sloping of the floors should be monitored for additional movement and the framing below reinforced as needed.*
- F3** The second floor framing and floor planks are exposed in the west room and it can be seen that some of the floor planks are damaged at the ceiling. This appears to be old damage and *should be monitored for changes and the planks replaced if they worsen or if other work is completed in the area (making them accessible).*

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- F4** The summer beam in the west room appears to be deflected. This is also evident in the sloping of the second floor as noted below. There is no visible evidence of damage to the beam indicating that it is failing, however it may be overstressed and deflecting. *If the structure remains as a residence then the beam should be monitored for additional deflection and reinforced if it worsens or cracks. If the structure undergoes a change of use the beam will most likely need to be reinforced with a flitch plate as described in the beginning of this report.*
- F5** At the west room hearth there are some cracked bricks. *These should be replaced for aesthetic reasons if other work is completed in the area.*
- F6** There are cracks in the plaster in the west room to the south of the fireplace. From appearances and discussions with the resident, these cracks are most likely do to old movements of the house and have stabilized. *The cracks should be monitored and if additional cracks are noted the floor and wall framing should be further inspected and reinforced.*
- F7** In the main entrance area there are old cracks in the walls of both the east and west rooms and in the ceiling. *The cracks should be monitored for changes and the framing below evaluated for additional damaged and reinforced as needed.*
- F8** The plank wall between the main entrance area and the east room is twisted. There are also open joints between both the wood panels of the wall and the planks floor. *This is most likely old damage which should be monitored. If the repairs to the first floor framing in the area noted above are not completed this may worsen.*
- F9** In the east room, there are cracks above both the door to the entrance and the door to the basement. *As with the damage to the plank wall noted above, the cracks should be monitored and may worsen if the first floor repairs are not completed.*
- F10** The floor in the east room has settled around a hard line a few feet to the east of the fireplace which appear to coincide with the chimney foundation. *The settlement has most likely stabilized but the area should be monitored for additional movement and the floor framing reinforced if needed.*
- F11** There are old cracks in the plaster of both the south and east wall *which should be monitored.*

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- F12** The exposed second floor framing in the east room appears to be deflected at both the beam in front of the chimney and at the joists near the door to the entrance area. *As with the noted deflections in the west room, if the building remains as a residence then the beam should be monitored for additional deflection and reinforced if it worsens or cracks. If the building under goes a change of use the beam will most likely need to be reinforced with a fitch plate.*
- F13** There are cracks and bulging plaster in the north wall of the east room. The beam below this wall, as noted above, is damaged but a new post has been added. This damage in the plaster, which appears to be old, is most likely due to the movement of the beam below. *It appears the damage has stabilized but it should be monitored for additional damage which would indicate a worsening of the beam below. New damage would be more visible after the plaster is repaired*
- F14** The summer beam in the east room is twisted at the north end *and should be monitored for changes.*
- F15** At the northeast addition, there appears to be a gradual downward slope of the floor and ceiling along the southern wall, the original exterior wall, and there slight cracking near the east end of the wall. *The area should be monitored for additional cracking which would be more visible after the plaster is repaired.*
- F16** In the northeast addition the floor angles upward at both the door to the northwest addition and to the north addition both of which are located at the stone foundation walls. The stairs up to the second floor of the addition slope away from the supporting west wall above the foundation wall. *The area should be monitored for additional settlement and the floor framing reinforced as needed.*
- F17** The floor in the north addition has a board near the center of the room which deflects when walked on. *The board should be monitored for additional movement and eventually replaced if it worsens of if work is completed in the area.*
- F18** There is an open joint in the floor between the northeast and north additions, most likely due to differential settlement of the areas. As the north addition is used as a workshop and storage area the opening in the floor has not been repaired in a long time to allow for confirmation that this is old damage. *The floor should be repaired and the area monitored for additional movement.*

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- F19** There is significant damage to the plaster in the north addition which appears to be older damage which was never replaced. *The plaster should be repaired so that active movement of the addition, indicating damage to the inaccessible framing, is visible and can be further investigated and the framing repaired as needed.*

Second Floor

- S1** In the west room, the floor settles to the center of the room. *As noted above, if the building is to remain a residence then the area should be monitored otherwise the beam will most likely need to be reinforced.*
- S2** There are multiple cracks in all of the walls of the west room. There is also some opening of the joints of the finish trim at each end of the north wall. The cracking in the north and west wall is minimal but at the south wall, the diagonal cracks indicate some settlement toward the center of the wall. As there is no visible evidence of damage to the beam and wall below, this is most likely old settlement cracking that has not been repaired. At the east wall there is a slight bulge in the plaster near the fireplace and cracks above the door to the hallway on both sides of the wall. There are also cracks in the ceiling and peeling paint, all of which appears to be old damage. *The cracking and finishes should be monitored for changes, which would be more visible after the cracks are repaired.*
- S3** The main stairs between the first and second floor have settled and the treads are very worn. Repairs to the stairs is visible in the basement and overall the stairs feel sound. *The stairs should be monitored for additional settlement and the future cracking of the worn treads.*
- S4** There are cracks in the plaster at the bottom of the attic stairs which are visible from between first and second floors. *The cracks should be monitored for changes which would be more visible after the plaster is repaired.*
- S5** In the east room, the west wall is cracked as would indicate settlement at both ends of the wall. As the wall below appears stable the cracking is most likely from old settlement. The sill at the south wall has been partially replaced, the rotting of which may have been the cause of the movement noted in the wall. *The cracks should be monitored for changes which would be more visible after the plaster is repaired.*
- S6** As with the south wall of the west room, in the east room the south wall is cracked appears to sag toward the center. The wall and beam below appear sound and as noted above the sill has been replaced at the south wall indicating that this is most likely old movement in the wall from the deterioration of the sill. *The cracks should be monitored for changes which would be more visible after the plaster is repaired.*

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- S7** The floor in the west room sags in front of the hearth where the beam below appears to have deflected. The floor in the same area moves enough to rattle the chest in the area when walked on, but overall the floor feels generally solid. *As noted above, if the structure is to remain a residence then the area should be monitored otherwise the beam will most likely need to be reinforced.*
- S8** The hearth in the east room is has settled with the floor and *should be monitored for additional movement.*
- S9** Movement is visible in the north wall of the east room as evidenced by cracking around the door and a shift in the door surround coming into the room. This shifting of the door surround is most likely due to the movement in the wall below noted above. Old shims were noted at the frame indicating the movement happened awhile ago. *The cracks and the alignment of the door frame should be monitored for changes. The changes in the cracking would be more visible after the plaster is repaired.*
- S10** In the northeast addition, the floor slopes downward to the center of the room and rises upward at the southwest corner. *The deflections of the floor should be monitored for changes that might indicate that the covered floor framing is damaged and needs to be reviewed and reinforced.*
- S11** There are old cracks in the ceiling of the northeast addition *The cracks should be monitored for additional cracks or surface changes, which would be more visible after the plaster is repaired.*

Attic and Roof Framing

- R1** There is some sagging of the stairs to the attic around the landing and the plaster walls are cracked in this area. The damage and sagging appear to be old and *the area should be monitored for additional sagging and cracking, which would be more visible after the plaster is repaired.*
- R2** The exposed brick chimney is cracked on its south face and is bulged out slightly near the roof. *The cracks in the brick masonry and the bulged area should be cut and pointed with a compatible mortar and any loose bricks reset.*
- R3** There is evidence of water infiltration on all sides of the chimney. Where the water accessed the masonry there are cracks and spalled and crumbling bricks. Above the roof the chimney and roof appear to be in good condition. *The chimney flashing should be reviewed to confirm it is sound and repaired as needed. The worse of the spalled bricks should be replaced and any cracked and loose masonry re-set*
- R4** On the north face of the chimney there is a hole into the flue. *The opening in the brick masonry should be filled in.*

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- R5** There is old damaged to the header at the north side of the chimney consisting of rot that was brought on by the water infiltration. *The damaged header should be borate treated and sistered or replaced.*
- R6** The attic floor on the east side of the chimney slopes toward the summer beam in the second floor room below. *The sloping should be monitored and the framing below reviewed if it worsens.*
- R7** Overall the roof framing appears to be in good condition, beyond the damaged chimney header noted above. From the exterior the ridge line of the roof sags on both sides of the chimney toward the center of each framing bay. This is typical of a structure of this age with a common purlin and rafter roof system, where the wooden structure shortens with respect to the unyielding masonry at its center. *As a due diligence, however the sag should be monitored and the roof framing evaluated if it worsens.*
- R8** The chimney at the northeast addition has visibly eroded mortar joints above the roofline but is not observable below because of wall finishes. *The eroded mortar joints should be cut and pointed with a compatible mortar, and flashing checked to make sure the damage is limited to above the roof.*

Report Limitations

This report is a summary of readily visible observations conducted during a single site visit to the property. No finishes were removed to expose hidden structure, and no calculations have been performed to determine if the overall building framing or foundations of the structure comply with past or present building codes. This report is strictly limited to structural considerations noted. Egress, guard rails, fire protection, and other building systems were not reviewed, and they are beyond the scope of this report.

If you have any questions regarding this report, please do not hesitate to contact this office.

Respectfully Yours,
Structures North Consulting Engineers, Inc.



Stephanie Davis, EIT



John M Wathne, PE



WHEELER HARRINGTON HOUSE		Legend	Priority 1	=	Immediate	
Repair Chart			Priority 2	=	replace within 1 Year (2015)	
			Priority 3	=	Replace within 5 years (2019)	
			Priority 4	=	Replace within 10 years (2024)	
Element*	Location	Condition	Replacement Year	Probable Cost	Cost of Alternate	
EXTERIOR						
Roofing & Flashing						
Vent Stack Flashing	Kitchen Shed Roof	Priority 2	2015	\$175	n/a	
Roof to wall flashing	Old Sink Room Roof to Old Kitchen Wall	Priority 2	2015	\$504	n/a	
Roof to wall flashing	Kitchen Shed Roof to Old Kitchen Wall	Priority 2	2015	\$1,008	n/a	
Roof to wall flashing	Old Kitchen Roof to Main Block Wall	Priority 2	2015	\$2,016	n/a	
Chimney flashing	Replace CMU chimney flashing at base	Priority 2	2015	\$2,016	n/a	
Asphalt Shingle Roofs	Kitchen Shed	Priority 3	2019	\$2,250	n/a	
Asphalt Shingle Roofs	Remaining Roofs	Priority 4	2024	\$9,000	n/a	
Asphalt Shingle Roofs	Entry Porches	Priority 4	2024	\$500	n/a	
Soldered flat seam copper	Main entry hood	Priority 1	2014	\$1,313	n/a	
Alternate	Locked Seam Copper Roof	Side Porch	N/A		\$11,025	
Alternate	Alaskan Yellow Cedar Roof	All Gable and Shed Roofs	N/A		\$39,375	
Rain Water Disposal						
Remove drip water trough	Main Entry Hood	Priority 1	2014	\$88	n/a	
Remove and replace fascia board	Behind Gutter Along Kitchen Shed Roof	Priority 2	2015	\$1,575	n/a	
Create sump, catch basin and drainpipe to daylight	Corner where Old Sink Room meets Old Kitchen Gable	Priority 2	2015	\$2,888	n/a	
Masonry						
Repoint brick chimney	Repoint Old Sink Room Chimney	Priority 2	2015	\$500	n/a	
Window mortar wash	North Widow in East Wall of Basement	Priority 2	2015	\$210	n/a	
Foundation repointing	Rubble Stone Sink Room Foundation	Priority 2	2015	\$500	n/a	
Foundation repointing	Rubble Stone Main Block South Elevation & Create Swale for Drainage Away from Foundation	Priority 2	2015	\$1,500	n/a	

WHEELER HARRINGTON HOUSE		Legend	Priority 1	=	Immediate	
Repair Chart			Priority 2	=	replace within 1 Year (2015)	
			Priority 3	=	Replace within 5 years (2019)	
			Priority 4	=	Replace within 10 years (2024)	
	Element*	Location	Condition	Replacement Year	Probable Cost	Cost of Alternate
Doors						
	Protective Glazing	Replace Acrylic Over Side Lites of Entry w/ Glass in Wood Frame	Priority 1	2014	\$656	n/a
Windows						
Alternate	Shutters	Install Shutters on Façade Windows	N/A			\$9,056
	Storm Windows	Paint and Reglaze	Priority 4	2024	\$4,725	n/a
	Windows	Paint and Reglaze	Priority 4	2024	\$11,375	n/a
Exterior Trim & Siding						
	Repair wood trim and clapboards and paint	All Elevations	Priority 3	2019	\$11,500	n/a
	Rake trim repair	East Gable End Main Block	Priority 1	2014	\$1,050	n/a
	Investigate and Repair Clapboard Bulging	East Elevation Main Block Second Story	Priority 2	2015	\$2,100	n/a
	Siding and Trim Repair	West Elevation of Kitchen Shed	Priority 1	2014	\$1,500	n/a
INTERIOR						
Internal Structure*						
Basement						
	Rebuild bulged wall portion	Water Service Entry	Priority 1	2014	\$3,500	n/a
	B2 - Repointing Rubble Foundation	West Bay of Basement	Priority 2	2015	\$1,400	n/a
	B3 - Borate Treat Wood and Reinforce Deficient Framing	East and West Basement Bays	Priority 3	2019	\$2,625	n/a
	B4 - Replace Rotted Joist	West Bay Between Beam and Chimney	Priority 1	2014	\$450	n/a
	B5 - Dutchman for crushed beam end and supplemental posts to adjacent beam	Eastern Bay	Priority 1	2014	\$1,050	n/a
	B6 - Repointing Chimney Base	Chimney base near stairs	Priority 3	2019	\$1,750	n/a
	B7 & B8 - Repoint Cracked Mortar Joints	Southeast corner	Priority 3	2019	\$1,750	n/a
	B9 - Analysis and Reinforcement of Beam	Old Sill Between Main Block and Old Kitchen	Priority 2	2015	\$875	n/a

WHEELER HARRINGTON HOUSE		Legend	Priority 1	=	Immediate	
Repair Chart			Priority 2	=	replace within 1 Year (2015)	
			Priority 3	=	Replace within 5 years (2019)	
			Priority 4	=	Replace within 10 years (2024)	
	Element*	Location	Condition	Replacement Year	Probable Cost	Cost of Alternate
	B10 - Repoint Cracked Mortar	Masonry Wall in Northeast Addition	Priority 3	2019	\$875	n/a
	B12 - Dutchman Repair Sill	Northwest Corner of Northeast Addition & East Wall of Main Block	Priority 3	2019	\$1,750	n/a
	B13 - Examination and Dutchman Repair Sill	West Wall of Main Roof	Priority 2	2015	\$1,750	n/a
First Floor						
	Plaster repair and replacement	Wall and Ceiling of Old Sink Room	Priority 2	2015	\$788	n/a
	Close gap in flooring	Threshold of Old Sink Room from Old Kitchen	Priority 2	2015	\$140	n/a
	Replace utility room ceiling	Utility Room in Kitchen Shed	Priority 3	2019	\$375	n/a
	Install through wall vent for dryer	Utility Room in Kitchen Shed	Priority 2	2015	\$105	n/a
	Repair Fireplace Brick, Clean Flue, Confirm Proper Operation of Damper	East Room Main Block	Priority 2	2015	\$263	n/a
Second Floor						
	Paint Ceiling	West Chamber	Priority 3	2019	\$450	n/a
	Repair Cracked Plaster and Skim Coat	North Wall of East Chamber	Priority 3	2019	\$1,365	n/a
Attic						
	R-1, R-2 & R-3 - Reset loose brick, replaced damaged and repoint in surrounding	Attic Chimney	Priority 2	2015	\$375	n/a
	R-5 - Rplace rotted header	Attic Chimney	Priority 1	2014	\$613	n/a
	R-4 - Replace missing bricks	Attic Chimney	Priority 2	2015	\$175	n/a
Sub Total					\$81,370	\$59,456
Contractor Overhead and Profit - 8%					\$6,510	\$4,757
Construction Cost Sub Total					\$87,880	\$64,213
Construction Contingency-15%					\$13,182	\$9,632
Total Construction Costs					\$101,062	\$73,845
Architecture and Engineering Fees-12%					\$9,764	\$7,135
TOTAL PROJECT COSTS					\$110,826	\$80,979

* Letters in internal structure repair are keyed to the Structure's North report



APPENDIX

- A) Historic Images at the Concord Free Public Library
- B) Photographic Documentation - Sara Chase (1980)
- C) Photographs - Peter Benes (1980s)



Historic photographs of the Wheeler-Harrington House. Courtesy William Munroe Special Collections, Concord Free Public Library.



Harrington House, 1937; photograph by George Shepard, from the Ruth Wheeler House File. Courtesy William Munroe Special Collections, Concord Free Public Library.

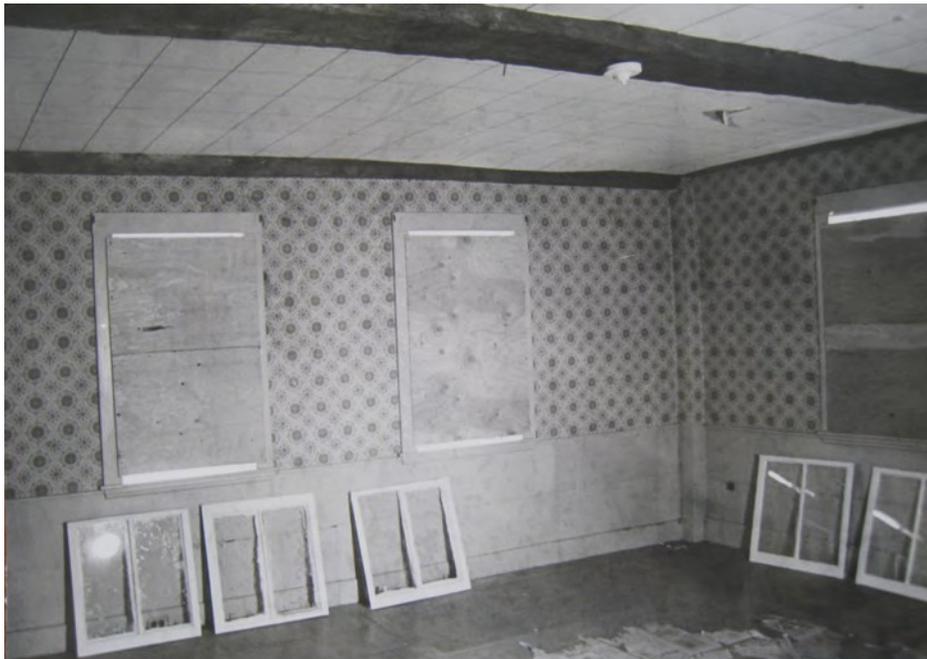


Elms at Harrington's, Concord; 1916 photograph by Herbert Wendell Gleason, from the Robbins-Mills Collection of Gleason Negatives. Courtesy William Munroe Special Collections, Concord Free Public Library.

Photographs filed with 1980 Existing Conditions & Preservation Recommendations Report by Sara B. Chase, Society for the Preservation of New England Antiquities. Photographs located at Concord Town Manager's office.



First floor, front, east room. 1980.



First floor, front east room. 1980.



First floor, front west room. 1980.



First floor, front west room. 1980.



First floor, kitchen. 1980.



First floor, back room. 1980.



Second floor, front east chamber. 1980.



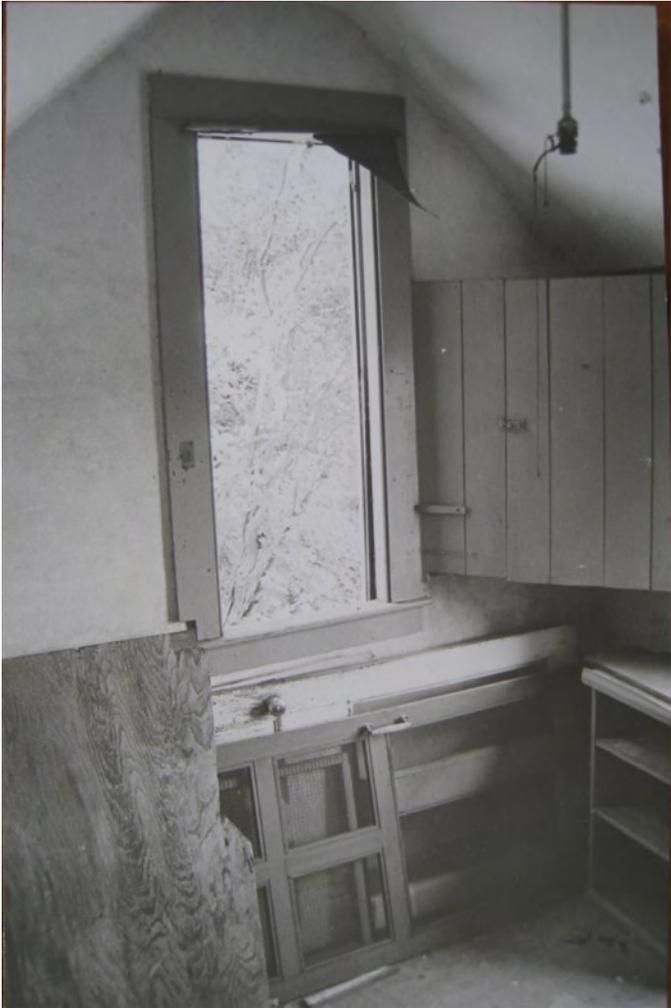
Second floor, front west chamber. 1980.



Second floor alcove.



Second floor, front east chamber.



[1860] addition. 1980.

Selected photographs taken by curator Peter Benes and presented in a talk at the Concord Museum on January 18, 1989.



View of Wheeler-Harrington park/conservation land.



Sunrise on the porch.



View from the rooftop of the Wheeler-Harrington House.



Detail of roof windbrace.



Adze hewn girt, parlor.



Framing detail - VII/VII.



Well top.



Sponge painting on stud.



Front sill replacement.

Environmental Assessment

**Wheeler-Harrington House and Park
West Concord, Massachusetts**

September 2014

Prepared for:



Town of Concord, Massachusetts

Prepared by:



TRC Environmental Corporation
650 Suffolk Street
Lowell, Massachusetts 01854

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ATTACHMENT A – FIGURES

- Figure 1 – USGS Map
- Figure 2 – Site Location Aerial
- Figure 3 – Environmental Resources Map
- Figure 4 – Flood Hazard Map
- Figure 5 – Recreation and Open Space Map
- Figure 6 – Watershed Map
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- Figure 8 – Soils Map
- Figure 9 – Harrington Park Master Plan – Open Space/Trail Map

ATTACHMENT B – PHOTO LOG

ATTACHMENT C – LIST OF LOWER AREA VEGETATION

ATTACHMENT D – LIST OF UPPER AREA VEGETATION

ATTACHMENT E – LIST OF WILDLIFE THAT COULD POTENTIALLY INHABIT THE SITE

1.0 INTRODUCTION

The purpose of this report is to describe existing conditions related to natural resources at the Wheeler-Harrington House and Park in West Concord, Massachusetts, and to identify opportunities and constraints with respect to managing the property for future public use. TRC conducted a site visit on July 21, 2014 to document the natural resources on the property, as described herein, to facilitate recommendations for future management of the property. The gardens and landscaping associated with the Wheeler-Harrington House and the agricultural areas on the property were not included as part of this assessment, as the focus of this report is on the water resources, natural vegetation, and wildlife.

1.1 Site Description

The Wheeler-Harrington House and Park consists of a 15.22-acre parcel (Map 11C; Block 2712) located at 249 Harrington Avenue in West Concord, and is identified as Town Conservation Land called Harrington Park owned by the Town of Concord and managed by the Natural Resources Commission, herein referred to as the “Site” (Concord WebGIS) (see Figures 1 and 2 in Attachment A). The Site is generally rectangular in shape, bordered on the south by Harrington Avenue and with an irregular northern boundary that extends along the south bank of the Assabet River. The Site is designated as Zone RB (Residence B) (Concord WebGIS).

For the purposes of this report, the Site can be divided into two distinct topographic areas; the “lower” and “upper” areas. The lower area generally coincides with the mapped floodplain and wetlands associated with the Assabet River as shown on Figures 3 and 4 in Attachment A, and is characterized by a wetland/upland mosaic on a floodplain terrace. The upper area consists of the slope leading up from the low elevation area to a terrace overlooking the Assabet River where the Wheeler-Harrington House is located along with the mowed and maintained areas of the property associated with the house and Harrington Park.

The Site ranges from approximately 150 feet above mean sea level (amsl) in the upper area, to approximately 122 feet amsl in the lower area along the Assabet River (Concord WebGIS). The Wheeler-Harrington House is located in the south-central portion of the Site, on the eastern edge of the terrace. A parking area for Harrington Park is located on the west-central portion of the Site. Active agricultural fields are located to the west of the parking area. Access to the single-family residence and parking area are along separate driveways leading from Harrington Avenue.

1.2 Landscape and Open Space Context

The Site is surrounded by a mix of forested, agricultural, recreational, and residential areas. To the south are numerous single-family residences beyond Harrington Avenue. To the east are single-family residences along Harrington Avenue and forested wetlands between the residences and the Assabet River. As previously discussed, the Assabet River forms the northern boundary of the Site, beyond which are forested areas, single-family residences,

community gardens, and Cousins Park. To the west is Marshall Farms, owned by the Town and operated by the Marshall Family.

As previously discussed, the Site is designated as Town Conservation Land owned by the Town of Concord (Commonwealth of Massachusetts, 1974). Document 60078525, Book 12639, Page 350, Dated 05/30/1974.

Several other Town Conservation Land parcels are located nearby and along the Assabet River. The following identifies the Town-owned parcels closest to the Site and their recreational opportunities, and Figure 5 identifies their location and adjacency/connectivity to the Site. Two canoe/kayak access points are also identified on Figure 5 upstream and downstream of the Site.

- Rogers Land and Assabet River Canoe Access Parcels – 7.4 acre parcel approximately 575 feet to the northwest of the Site. Hiking trail access to the Assabet River.
- Assabet River Property – 10.0-acre parcel approximately 650 feet to the east of the Site. No recreational opportunities identified.
- Cousins Park – 10.5 acre parcel on the opposite side of the Assabet River from the Site. Hiking trails, community gardens, playing fields.
- Tarbell Springs Road Property – 0.5-acre parcel approximately 300 feet southeast of the Site. No recreational opportunities identified.
- Old Rifle Range – 118.7-acre parcel approximately 750 feet south of the Site. Hiking trails throughout the parcel.

Two of the overarching goals of the 2014 Town of Concord Open Space and Recreation Plan (OSRP) apply to the Site with respect to environmental and recreational issues, as discussed below:

- 1) Protect Water Resources and Biodiversity: The 2014 OSRP identifies the Site as being a major Wildlife and Water Protection Corridor associated with the Assabet River. All five types of water features identified as of particular importance are present on the Site; watersheds, surface water, aquifer recharge areas, flood hazard areas, and wetlands, as listed below:
 - The Sudbury-Assabet-Concord (SuAsCo) Rivers watershed;
 - The Assabet River and two intermittent streams;
 - Medium yield aquifer;
 - 100-year floodplain and floodway associated with the Assabet River;
 - Forested, scrub-shrub, and emergent wetlands.

Water quality, availability/supply, and safety are identified as concerns for water resources in the 2014 OSRP. Maintaining the Site as a conservation area and minimizing

disturbance to the natural areas, especially wetlands which help to improve water quality and availability/supply, will allow the Site to contribute to this goal. The existing mosaic of forested, scrub-shrub, and emergent wetlands, forested and emergent uplands, and maintained grassland contribute greatly to available habitat for a variety of wildlife species, allowing for significant wildlife and vegetation biodiversity. Continuing to maintain these habitats, especially by ensuring non-native and/or invasive species do not begin to dominate and reduce biodiversity, will also allow the Site to contribute to this goal.

- 2) Improve Recreational Access and Accessibility: The 2014 OSRP states that residents want schools, parks, and neighborhoods to be connected to natural areas through a network of improved trails. Existing trails on the Site provide adequate recreational hiking opportunities and access to the Assabet River, and now connect to other nearby trails or open spaces. By obtaining the proposed easement to connect existing trails on the Site to the existing trails on the open space parcel known as Second Division Brook Conservation Land to the northwest (see Figure 5), an open space connection has been established that will allow for unrestricted access to over 2,000 feet of the Assabet River waterfront, and will eventually create a trail connection between The Assabet River on the Site to Second Division Brook Conservation Land.

2.0 WATER RESOURCES

The Site is located within the SuAsCo Rivers watershed, as shown on Figure 6 in Attachment A. Identified by Hydrologic Unit Codes (HUCs), the Site is located within the following watersheds:

- HUC 8: 01070005 (Concord)
- HUC 10: 0107000502 (Concord River)
- HUC 12: 010700050204 (Assabet River – Elizabeth Brook to mouth)

The Assabet River watershed is 177 square miles, with a population of over 170,000 people (OARS, Inc.). Starting in Westborough, the Assabet River falls 320 feet through the towns of Northborough, Marlborough, Berlin, Hudson, Stow, Maynard, Acton, and finally Concord where it merges with the Sudbury River at Egg Rock to form the Concord River (OARS, Inc.). The Assabet River flows from west to east along the northern boundary of the Site, and varies from approximately 60 to 100 feet in width. The portion of the Assabet River that flows along the northern Site boundary is designated a Wild and Scenic River, managed by the National Park Service, Northeast Regional Office (Rivers.gov).

As previously discussed, a wetland/upland mosaic is located throughout the low elevation area on the Site, which is hydrologically connected to the Assabet River. According to MassGIS, the wetlands consist of deciduous wooded swamp and shrub swamp (see Figure 7 in Attachment A); however, marsh areas were also observed during the site visit. Per the Cowardin classification system, these wetlands are palustrine forested (PFO), palustrine scrub-shrub (PSS), and palustrine emergent (PEM) wetlands (Cowardin et al., 1979). Wetlands depicted on

the MassGIS data layer generally coincide with the observed wetland boundaries on the Site; however, formal delineation of these resources would be needed to confirm the boundaries. Two streams assumed to be intermittent are also located within the wetlands on the eastern portion of the Site, which flow through wetlands to the Assabet River on the northeast corner of the Site. It should be noted the boundaries of water resources on the Site were not delineated, but appear to generally coincide with the MassGIS mapping, with the exception of the intermittent streams which are not mapped.

Federal Emergency Management Agency (FEMA) Zone AE Regulatory Floodway, Zone AE floodplain (1% annual chance of flooding), and Zone X floodplain (0.2% annual chance of flooding) are also located on the Site (MassGIS) (see Figure 4 in Attachment A). Approximately 8.4 acres (54% of the Site) is located within FEMA Flood Hazard Zone (Zone AE and Zone X), and 3.5 acres (22% of the Site) is located within FEMA Floodway associated with the Assabet River. A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (FEMA, 2014). Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations (FEMA, 2014).

3.0 VEGETATIVE COMMUNITIES AND WILDLIFE

There are no Massachusetts Natural Heritage and Endangered Species Program (NHESP) Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species mapped on or near the Site (MassGIS). Mapped Priority Habitat is present to the south beyond Harrington Avenue, approximately 550 feet south of the Site, on the Old Rifle Range Conservation Land (see Figure 7) (MassGIS). Mapped Priority and Estimated Habitats is also located approximately 1,460 feet to the northwest beyond Main Street. It is recommended that information be obtained from NHESP to determine what species are located within these Priority and Estimated Habitats to determine if management techniques on the Site could potentially enhance habitat for these species.

There are no potential or certified vernal pools mapped at or adjacent to the Project Site (see Figure 3) (MassGIS). The closest certified vernal pools to the Site are located approximately 1,450 feet to the southeast, 1,420 feet to the southwest, and 1,450 feet to the northwest of the Site (MassGIS). The closest mapped potential vernal pools to the Site are located approximately 1,000 feet to the southeast, 700 feet to the northeast, and 1,500 feet to the north of the Site (MassGIS). The certified and potential vernal pool to the south of the Site is located on the Old Rifle Range Conservation Land (see Figure 7). No vernal pools were observed during the site reconnaissance; however, a formal vernal pool survey was not conducted. The northern and eastern portion of the Site is identified as Core Habitat and Species of Conservation Concern on the NHESP BioMap 2, and the entire Site is identified as Open Space (NHESP).

3.1 Lower Area Communities

As previously discussed, vegetation communities in the lower area includes PFO, PSS, and PEM wetland communities. Herbaceous and forested uplands are also interspersed throughout the low elevation area, forming a wetland/upland mosaic. Dominant vegetation in the low elevation area includes red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), Northern red oak (*Quercus rubra*), silky dogwood (*Cornus amomum*), arrow-wood (*Viburnum dentatum*), glossy false buckthorn (*Frangula alnus*), wrinkle-leaf goldenrod (*Solidago rugosa*), tall goldenrod (*Solidago altissima*), skunk cabbage (*Symplocarpus foetidus*), jewelweed or spotted touch-me-not (*Impatiens capensis*), and small-spike false nettle (*Boehmeria cylindrical*). See Attachment B for photos of the lower area and Attachment C for a list of vegetation observed in the lower area. Common wildlife that could potentially inhabit the lower area includes white-tailed deer (*Odocoileus virginianus* - observed during site visit), red-winged blackbird (*Agelaius phoeniceus*), painted turtle (*Chrysemys picta*), spring peeper (*Pseudacris crucifer*), and green frog (*Rana clamitans*). See Attachment E for a full list of wildlife that could potentially inhabit the Site.

3.2 Upper Area Communities

Vegetation communities in the upper area include forested uplands, and mowed/maintained areas associated with the Wheeler-Harrington House and Park. Dominant vegetation in the forested uplands includes Northern red oak, Norway maple (*Acer platanoides*), white ash (*Fraxinus americana*), glossy false buckthorn, white snakeroot (*Ageratina altissima*), and lady fern (*Athyrium angustum*). Species identified in the mowed and maintained areas include unidentified grasses (due to mowing), bird vetch (*Vicia cracca*), bedstraw species (*Galium sp.*), dandelion (*Taraxacum officinale*), daisy fleabane (*Erigeron annuus*), and wood-sorrel species (*Oxalis sp.*). See Attachment B for photos of the upper area and Attachment D for a list of vegetation observed in the upper area. Common wildlife that could potentially inhabit the upper area includes species adapted to urban edge, mowed, and maintained habitat such as black-capped chickadee (*Poecile atricapillus*), common grackle (*Quiscalus quiscula*), mourning dove (*Zenaidura macroura*), tree swallow (*Tachycineta bicolor*), American toad (*Bufo americanus*), eastern chipmunk (*Tamias striatus*), eastern gray squirrel (*Sciurus carolinensis*), and raccoon (*Procyon lotor*). See Attachment E for a full list of wildlife that could potentially inhabit the Site.

3.3 Invasive/Non-Native Species

Non-native species status was identified via the United States Department of Agriculture Natural Resources Conservation Service Plants Database (USDA-NRCS[a]) and invasive species were identified via The Massachusetts Invasive Plants Advisory Group (MIPAG), which classifies invasive species as either invasive, likely invasive, or potentially invasive (see Attachments C and D).

As identified in Attachment C, the following non-native and invasive species were identified in the lower area: glossy false buckthorn, twinsisters (*Lonicera tatarica* - likely invasive), purple

loosestrife (*Lythrum salicaria*), Japanese knotweed (*Reynoutria japonica*), true forget-me-not (*Myosotis scorpioides* – likely invasive), garlic-mustard (*Alliaria petiolata*), and pale-yellow iris (*Iris pseudacorus*). Non-native and invasive species in the lower area were not dominant in any of the areas observed, and generally consisted of small patches in areas dominated by native species.

As identified in Attachment D, the following non-native and invasive species were identified in the upper area: Norway maple, glossy false buckthorn, rambler or multiflora rose (*Rosa multiflora*), Autumn olive (*Elaeagnus umbellata*), and Asian bittersweet (*Celastrus orbiculatus*). Norway maple and glossy false buckthorn were found primarily within the deciduous forest on the slope leading up from the lower area. Rambler rose, autumn olive, and Asian bittersweet were found primarily along the fringes of the forested areas where they abut the mowed and maintained areas.

4.0 GEOLOGY AND SOILS

Three soil types are identified on the Site: Windsor loamy sand, 3 to 8 percent slopes; Merrimac-Urban land complex, 0 to 8 percent slopes; and Saco mucky silt loam, 0 to 1 percent slopes (USDA-NRCS[b]) (see Figure 8 in Attachment A).

The Windsor loamy sand, 3 to 8 percent slopes soil unit generally coincides with the upper area on the Site, and is not considered a hydric soil. The parent material for this soil unit is loose sandy glaciofluvial deposits, and is excessively drained. The depth to a restrictive feature and the water table is greater than 80 inches. There is no frequency of flooding or ponding. This soil type is classified as somewhat limited for path and trail development, which is based on soil properties that affect trafficability and erodibility, due to its sandy and dusty properties. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. This soil type has a K factor value of 0.17. A wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. This soil type has a WEG of 2.

The Merrimac-Urban land complex, 0 to 8 percent slopes soil unit is located on the southern portion of the Site and generally parallels Harrington Avenue, and is not considered a hydric soil. The parent material for this soil unit is friable loamy eolian deposits over loose sandy glaciofluvial deposits derived from granite and gneiss, and is somewhat excessively drained. The depth to a restrictive feature and the water table is greater than 80 inches. There is no frequency of flooding or ponding. This soil type is classified as somewhat limited for path and trail development due to its sandy and dusty properties. The K factor value for this soil type is 0.24, and its WEG is 3.

The Saco mucky silt loam, 0 to 1 percent slopes soil unit generally coincides with the lower area on the Site, and is considered a hydric soil. The parent material for this soil unit is silty alluvium, and is very poorly drained. The depth to a restrictive feature is more than 80 inches and the depth to the water table is 0 to 6 inches. There is a frequency of flooding, and no frequency of ponding. This soil type is classified as very limited for path and trail development, primarily because of the shallow depth to the saturated zone and frequency of flooding. The K factor value for this soil type is 0.49, and its WEG is 8.

All three of the soil types on the Site are considered very limited with respect to establishing and maintaining lawns and landscaping. The Windsor loamy sand and Merrimac-Urban land complex soil units are very limited primarily due to low exchange capacity, and droughty and sandy conditions. The Saco mucky silt loam soil unit is very limited primarily due to frequency of flooding and shallow depth to the saturated zone.

All three of the soil types on the Site are also considered very limited with respect to shallow excavations to a maximum depth of 5 or 6 feet. The Windsor loamy sand and Merrimac-Urban land soil units are very limited primarily due to unstable excavation walls and depth to the saturated zone. The Saco mucky silt loam soil unit is very limited primarily due to depth to the saturated zone, organic matter content, and frequency of flooding.

5.0 RECREATIONAL USES

As previously discussed, a parking area exists west of the Wheeler-Harrington House and provides access to the trail that leads downslope to the lower area on the Site (see Figure 9 in Appendix A). However, there are no trail markers or maps at the Site to identify where the trail starts and where it leads. The existing trails in the lower area are routinely mowed and maintained by the Town of Concord Division of Natural Resources. One trail generally parallels the Assabet River but dense vegetation prevents views of and access to the river in most areas. The lower area also provides opportunity for canoe/kayak inputs and fishing in the Assabet River, as well as bird watching. However, as previously discussed, suitable access to the Assabet River is limited.

A trail connection to the Town-owned Second Division Brook Conservation Land along the south bank of the Assabet River identified in Section 1.2 is possible if the proposed easements are established between the non-Town owned parcels (see Figure 9).

6.0 REGULATORY ASSESSMENT

Wetlands on the property are considered freshwater Bordering Vegetated Wetlands (BVWs) pursuant to the Massachusetts Wetlands Protection Act (WPA) and its implementing regulations at 310 CMR 10.00, as well as the Town of Concord Wetlands Bylaw (Wetlands Bylaw) and implementing Regulations, subject to a 100-foot Buffer Zone from their delineated boundary. The Assabet River is also subject to a 100-foot Buffer Zone from its delineated Bank pursuant to the WPA and the Wetlands Bylaw, as well as a 200-foot Riverfront Area from its

mean annual high water (MAHW) line. The floodplain of the Assabet River is considered Bordering Land Subject to Flooding (BLSF) pursuant to the WPA and the Wetlands Bylaw, which does not have a regulatory Buffer Zone. The two intermittent streams are also regulated pursuant to the WPA and the Wetlands Bylaw, subject to a 100-foot Buffer Zone. As the intermittent streams are not mapped on the USGS topographic map (see Figure 1 in Attachment A) and have a watershed of less than 0.5 square miles, the intermittent streams are not subject to a 200-foot Riverfront Area.

As previously discussed, there are no NHESP Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species, or potential or certified vernal pools on or near the Site. The Site is also not within an Area of Critical Environmental Concern (ACEC) and there are no Outstanding Resource Waters (ORW) on or near the Site.

Activities which will remove, fill, dredge, or alter any Bank, BVW, land under waterbodies and waterways, BLSF, Riverfront Area, and Buffer Zones are subject to approval from the Massachusetts Department of Environmental Protection (MassDEP) and the Concord Natural Resources Commission. The WPA considers the following as “limited” projects, which may apply to proposed improvements at the Site. Limited projects are categories of activities specified in the regulations at 310 CMR 10.24(7) and 10.53(3) – (6), which can proceed at the discretion of the Natural Resources Commission upon submittal of a Notice of Intent (NOI) without fully meeting the resource area performance standards, subject to an alternatives analysis and conditions to protect the interests in the WPA.

- The construction and maintenance of catwalks, footbridges, wharves, docks, piers, boathouses, boat shelters, duck blinds, skeet and trap shooting decks and observation decks; provided, however, that such structures are constructed on pilings or posts so as to permit the reasonably unobstructed flowage of water and adequate light to maintain vegetation.
- The construction, reconstruction, operation or maintenance of water dependent uses; provided, however that:
 - Any portion of such work which alters a BVW shall remain subject to the provisions of 310 CMR 10.55;
 - Such work in any other resources area(s) found to be significant to flood control or prevention of storm damage shall meet the performance standards for that interest(s), and;
 - Adverse impacts from such work in any other resource area(s) shall be minimized regarding the other statutory interests for which that resource area(s) is found to be significant.

In addition, the following activities are exempt pursuant to the WPA and the Wetlands Bylaw within the 100-foot Buffer Zone (which includes a 25-foot No-Disturb Zone per the Wetlands Bylaw) or the 200-foot Riverfront Area provided the activity is not within any other resource area, there is no regrading, no trees greater than 6 inches diameter at breast height are

removed, there is no alteration to additional resource areas, and erosion and sedimentation controls are used as needed or as determined by the Concord Natural Resources Commission or agent of the Commission:

- Maintaining and repairing existing buildings and structures (excluding repaving) provided that:
 - The footprint remains the same;
 - There is no additional alteration of any resource area; and
 - There is no heavy equipment or stockpiling within 50 feet of resource areas.
- Constructing, maintaining, and repairing unpaved pedestrian walks for private use provided no use of fill material;
- Maintaining and repairing existing stonewalls;
- Conversion of lawns to decks, sheds, patios, and pools that are an accessory to residential structures, provided the activity, including any discharge pipes, is located more than 50 feet from the MAHW line or BVW (whichever is farther). The conversion of such uses, or other impervious surfaces accessory to existing single family houses to lawn or natural vegetation is also allowed;
- Planting native species of trees, shrubs, or groundcover (excluding turf lawns); and
- Vista pruning, provided the activity is located more than 50 feet from the MAWH line within a Riverfront Area or from BVW, whichever is farther.

The U.S. Army Corps of Engineers (Corps) also regulates certain activities that result in direct impacts to Waters of the U.S. under Section 404 of the Clean Water Act. The New England District of the Corps has issued a General Permit (GP) for activities in Waters of the U.S. that have minimal and adverse impacts. The Corps does not regulate any buffer zones to Waters of the U.S. Activities which directly impact Waters of the U.S. are classified as Category 1 or Category 2 activities. Category 1 activities do not require a permit, but do require a notification form to be sent to the Corps, while Category 2 activities require a permit. Should activities be proposed within Waters of the U.S., the extent and nature of the impact must be compared to the Category 1 and 2 thresholds to determine if a notification or a permit is required.

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) issued a Land Disposition Policy (February 19, 1998) to protect, preserve, and enhance all open space areas covered by Article 97 of the Article of Amendment to the Constitution of the Commonwealth of Massachusetts. TRC understands that the Wheeler-Harrington House and Park is classified as Article 97 land and is therefore subject to the restrictions of this law. Any proposed changes in use or land disposition would require review and approval by the State Legislature. An Article 97 land disposition is defined as any transfer or conveyance of ownership or other interests; any change in physical or legal control; and any change in use, in and to Article 97 land or interests in Article 97 land owned or held by the Commonwealth or its political subdivisions,

whether by deed, easement, lease, or any other instrument effectuating such transfer, conveyance, or change.

7.0 RECOMMENDATIONS

- A non-native and invasive species management plan could be developed that would prescribe at least annual monitoring and measures to remove or control species. Given the relatively minimal area of non-native and invasive species in the lower area, removal of certain small patches of species by hand may be viable while others may require mechanical and/or chemical treatment. Specific measures for individual species would be determined based on the monitoring efforts and coordination/approval with Concord Natural Resources Commission.
- The existing, and any potential future trails on the Site would benefit from the addition of an updated trail map at the parking area that includes all trails on the Site, and trail markers along the trails. Interpretive signage could be installed along the trails to educate hikers about the Assabet River, floodplains, wetlands, wildlife, and the historic nature of the Site.
- Trail connections to other Town-owned land, including to Rogers Land, should take into consideration the regulatory floodway and floodplain, and wetlands associated with the Assabet River. Trails should avoid traversing wetlands where possible, but if needed, elevated walkways should be considered to maintain wetland hydrology. Elevated walkways should be constructed to be flood-resistant, and would require approval from MassDEP and the Concord Natural Resources Commission.
- Maintain vegetation in select areas along the Assabet River to provide views of and provide suitable access to the Assabet River. Avoid disturbance to existing native vegetation to the extent practicable to minimize the potential for non-native and invasive species to establish.
- Information be obtained from NHESP to determine what species are located within the identified Priority and Estimated Habitats near the Site to determine if management techniques on the Site could potentially enhance habitat for these species.
- If not currently incorporated as a management practice, upland fields could be managed for nesting birds by restricting mowing until after the breeding season is completed.
- The Site provides several potential areas for a canoe/kayak input point to the Assabet River. Specific locations would first need to be identified.
- Coordinate with the Concord Natural Resources Commission and Corps as needed regarding all proposed improvements within jurisdictional water resources areas and Buffer Zones to determine if limited project status or exemptions may apply, and what permitting may be required, if any.

8.0 REFERENCES

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Town of Concord 2014 Open Space and Recreation Plan. http://concordma.gov/pages/ConcordMA_NaturalResources/OSRP/

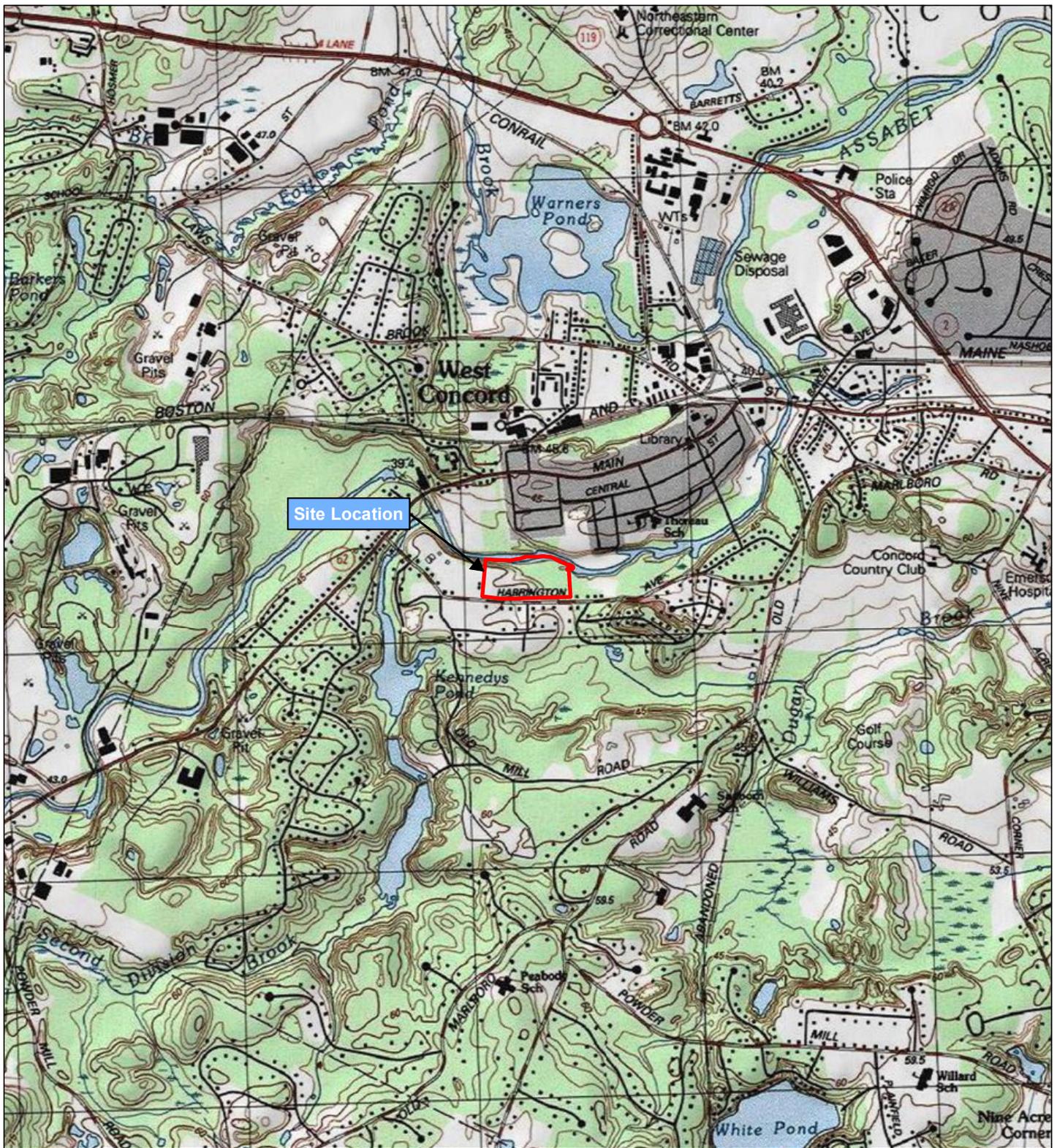
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ATTACHMENT A

Figures



 Approximate Site Boundary



Massachusetts



Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

USGS MAP
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

Source Data: MassGIS, 2014

Service Layer Credits: Copyright:© 2013
National Geographic Society, i-cubed



FIGURE 1

DATE: 9/4/2014



 Approximate Site Boundary

Source Data: MassGIS, 2014

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA,



0 100 200 Feet



Massachusetts



Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

SITE LOCATION AERIAL
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

FIGURE 2

DATE: 9/4/2014



- Approximate Site Boundary
- Stream
- Waterbody
- Wetland
- Submerged Wetland

- * Certified Vernal Pool
- * Potential Vernal Pool
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species

Source Data: MassGIS, 2014

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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**ENVIRONMENTAL
 RESOURCES MAP**
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

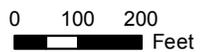
FIGURE 3 DATE: 9/4/2014



-  Approximate Site Boundary
-  FEMA Flood Hazard Zone 8.37 Acres on Site
-  FEMA Floodway 3.54 Acres on Site

Source Data: Federal Emergency Management Agency, Flood Insurance Rate Maps: FM25017C0358 and FM25017C0359

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,



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FLOOD HAZARD MAP
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

FIGURE 4 | DATE: 9/15/2014



- Approximate Site Boundary
- Conservation Restriction
- Municipal Open Space
- Land Trust Open Space
- Private Open Space
- Approximate Canoe Access Point

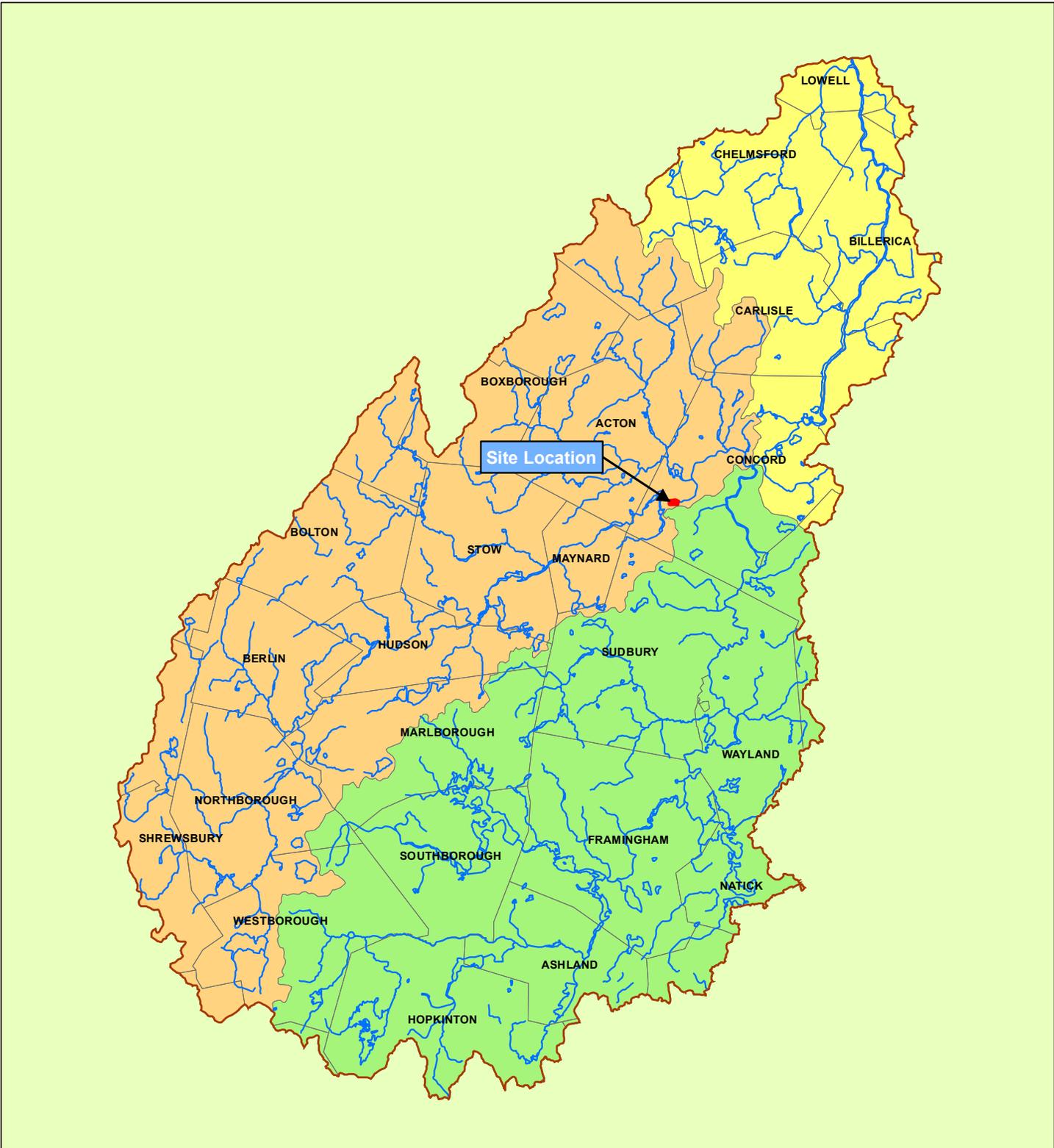
Source Data: Town of Concord
 Recreational and Open Space Lands Map;
 Service Layer Credits: Source: Esri, DigitalGlobe,
 GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus
 DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community



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**RECREATION AND
 OPEN SPACE MAP**
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

FIGURE 5 | DATE: 9/15/2014



- Approximate Site Location
- Town Boundary
- Hydrography
- Concord River Watershed

Sub-watershed

- Assabet
- Concord
- Sudbury

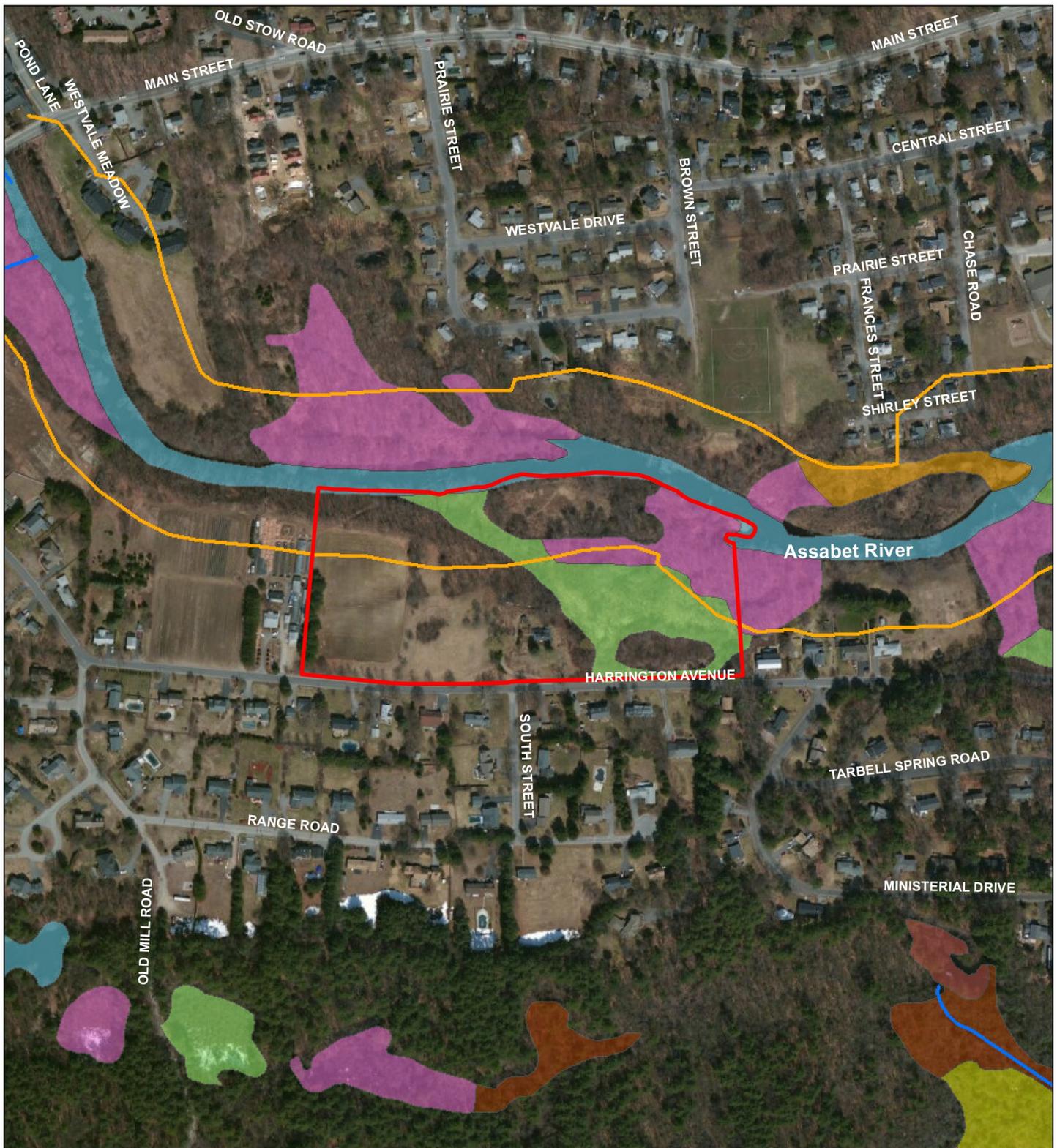
Source Data: OARS Suasco
Watershed Map, 2014;
MassGIS, 2014



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WATERSHED MAP
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

FIGURE 6 DATE: 9/4/2014



- Approximate Site Boundary
- Stream
- Approximate 200-foot Riverfront Area
- DEEP MARSH
- OPEN WATER
- SHALLOW MARSH MEADOW OR FEN
- SHRUB SWAMP
- WOODED SWAMP CONIFEROUS
- WOODED SWAMP DECIDUOUS
- WOODED SWAMP MIXED TREES

0 100 200
 Feet

N

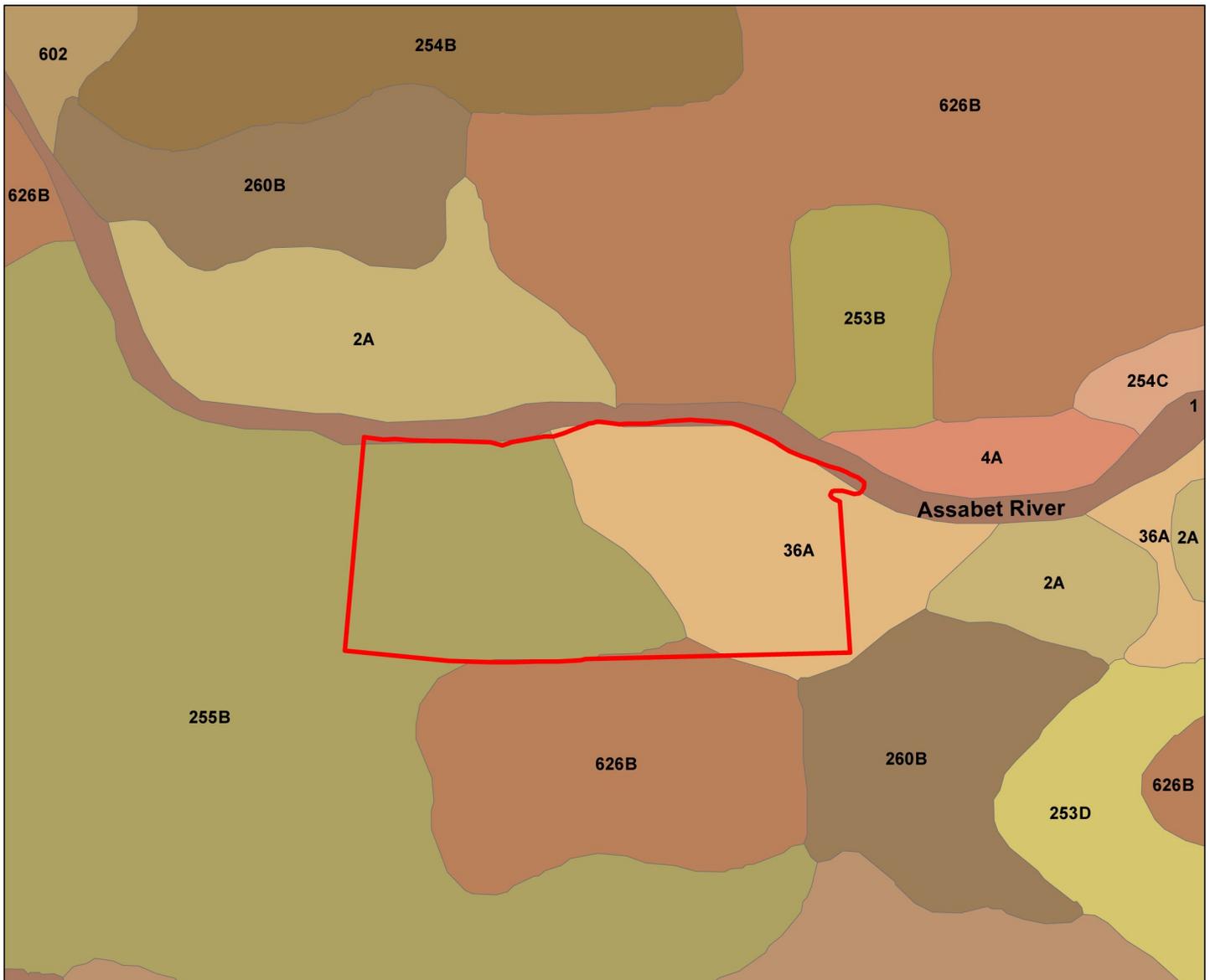
Source Data: MassGIS, 2014
 Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User



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**MADEP WETLAND MAP
 WHEELER HARRINGTON HOUSE
 249 HARRINGTON AVENUE
 CONCORD, MA**

FIGURE 7 DATE: 9/15/2014



Soil Name	
259B	Carver loamy coarse sand, 3 to 8 percent slopes
256B	Deerfield loamy sand, 3 to 8 percent slopes
253A	Hinckley loamy sand, 15 to 25 percent slopes
253B	Hinckley loamy sand, 3 to 8 percent slopes
253C	Hinckley loamy sand, 8 to 15 percent slopes
254B	Merrimac fine sandy loam, 3 to 8 percent slopes
245C	Merrimac fine sandy loam, 8 to 15 percent slopes
626B	Merrimac-Urban land complex, 0 to 8 percent slopes
2A	Pootatuck fine sandy loam, 0 to 3 percent slopes
4A	Rippowam fine sandy loam, 0 to 3 percent slopes
36A	Saco mucky silt loam, 0 to 1 percent slopes
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes
260B	Sudbury fine sandy loam, 3 to 8 percent slopes
51A	Swansea muck, 0 to 1 percent slopes
602	Urban land
32B	Wareham loamy fine sand, 0 to 5 percent slopes
1	Water
255B	Windsor loamy sand, 3 to 8 percent slopes

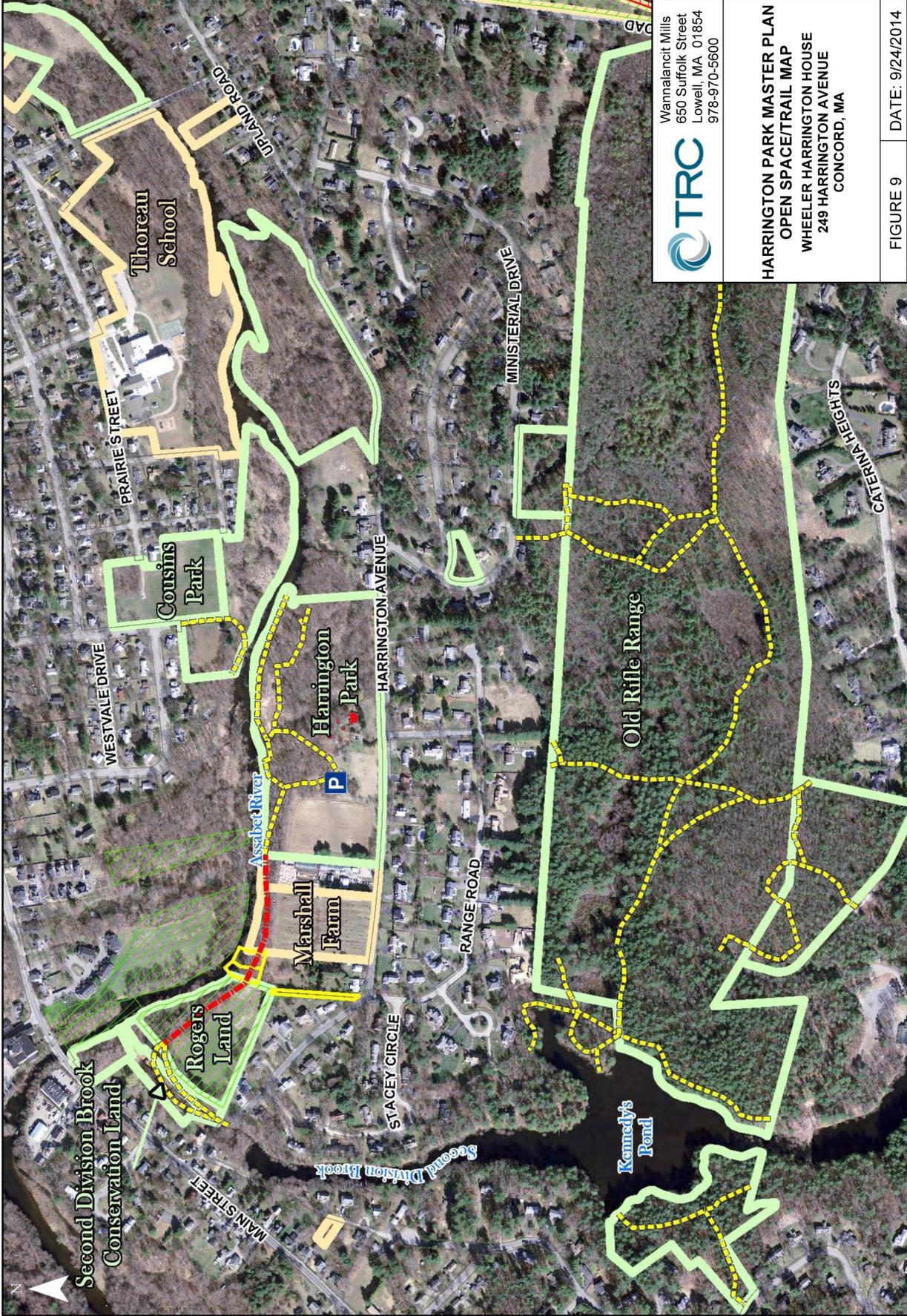
Source Data: United States Department of Agriculture Soil Survey Geographic (SSURGO) database, 2012



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SOILS MAP
WHEELER HARRINGTON HOUSE
249 HARRINGTON AVENUE
CONCORD, MA

FIGURE 8 | DATE: 9/4/2014



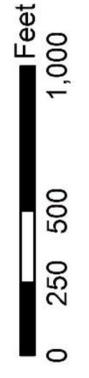
Wannalancit Mills
 650 Suffolk Street
 Lowell, MA 01854
 978-970-5600



HARRINGTON PARK MASTER PLAN
OPEN SPACE/TRAIL MAP
 WHEELER HARRINGTON HOUSE
 249 HARRINGTON AVENUE
 CONCORD, MA

FIGURE 9 DATE: 9/24/2014

Source: Town of Concord Natural Resources Commission, 2014



- Legend**
- Existing Trails
 - Potential Trail Connection
 - Harrington House and Structures
 - Access Easements
 - Town Conservation Lands
 - Town Parcels
 - Bruce Freeman Rail Trail
 - Conservation Restrictions

ATTACHMENT B

Photo Log



-  Approximate Site Boundary
-  Approximate Photo Location

0 100 200
Feet

N

MINISTERIAL DRIVE

Wheeler-Harrington House and Park Photo Log, July 21, 2014



Photo 1: View facing northeast from the southeast corner of the Wheeler-Harrington House, looking downslope toward palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) wetlands that occupy a majority of the lower area on the Site.



Photo 2: View facing northwest from Harrington Avenue at the southeast corner of the Site showing densely vegetated PEM and PFO wetlands.



Photo 3: View facing southeast at the northeast corner of the Site showing densely vegetated interspersed PEM, PSS, and PFO wetlands.



Photo 4: View facing south showing PEM wetlands from near the same location as Photo 3.



Photo 5: View facing east in the north-central portion of the Site, showing a representative PFO wetland.



Photo 6: View facing northeast of the Assabet River from the north-central Site boundary.



Photo 7: View facing east of a representative herbaceous upland area in the north-central portion of the Site, dominated primarily by goldenrod (*Solidago* sp.).



Photo 8: View facing north on the northwest Site boundary of a PEM and PFO wetland between the base of the slope associated with the upper area and the Assabet River.



Photo 9: View facing north looking downslope toward the location of Photo 8. The Assabet River is visible in the background.



Photo 10: View facing northwest of the forested slope on the central portion of the Site.



Photo 11: View facing east of the mowed and maintained area associated with Harrington Park on the southwest portion of the Site. The Wheeler-Harrington House is visible in the background.

ATTACHMENT C

List of Lower Area Vegetation

List of Lower Area Vegetation				
Common Name	Scientific Name	Wetland Indicator Status ¹	Native ²	Invasive ³
Trees				
Red maple	<i>Acer rubrum</i>	FAC	Yes	No
Northern Red Oak	<i>Quercus rubra</i>	FACU	Yes	No
Silver Maple	<i>Acer saccharinum</i>	FACW	Yes	No
Gray Birch	<i>Betula populifolia</i>	FAC	Yes	No
Slippery Elm	<i>Ulmus rubra</i>	FAC	Yes	No
Northern Catalpa	<i>Catalpa speciosa</i>	FACU	Yes	No
Shrubs				
Twinsisters (formerly Tatarian honeysuckle)	<i>Lonicera tatarica</i>	FACU	No	Likely
Silky Dogwood	<i>Cornus amomum</i>	FACW	Yes	No
Southern Arrow-Wood	<i>Viburnum dentatum</i>	FAC	Yes	No
Red Elder or Red Elderberry	<i>Sambucus racemosa</i>	FACU	Yes	No
Glossy False Buckthorn	<i>Frangula alnus</i>	FAC	No	Yes
American Hornbeam	<i>Carpinus caroliniana</i>	FAC	Yes	No
Herbaceous				
Jewelweed or Spotted Touch-Me-Not	<i>Impatiens capensis</i>	FACW	Yes	No
Skunk-Cabbage	<i>Symplocarpus foetidus</i>	OBL	Yes	No
Sensitive Fern	<i>Onoclea sensibilis</i>	FACW	Yes	No
Small-Spike False Nettle	<i>Boehmeria cylindrica</i>	OBL	Yes	No
Chufa or Yellow Nut-sedge	<i>Cyperus esculentus</i>	FACW	Yes	No
Northern Lady Fern	<i>Athyrium angustum</i>	FAC	Yes	No
Fringed Sedge	<i>Carex crinita</i>	OBL	Yes	No
Cat-tail	<i>Typha sp.</i>	OBL	Yes	No
Wrinkle-Leaf Goldenrod	<i>Solidago rugosa</i>	FAC	Yes	No
Cinnamon Fern	<i>Osmundastrum cinnamomeum</i>	FACW	Yes	No

List of Lower Area Vegetation				
Common Name	Scientific Name	Wetland Indicator Status ¹	Native ²	Invasive ³
Japanese-Knotweed	<i>Reynoutria japonica</i>	FACU	No	Yes
Duck-Potato or Broadleaf Arrowhead	<i>Sagittaria latifolia</i>	OBL	Yes	No
Tall Goldenrod or Canada goldenrod	<i>Solidago altissima</i>	FACU	Yes	No
True Forget-Me-Not	<i>Myosotis scorpioides</i>	OBL	No	Likely
Eastern Daisy Fleabane	<i>Erigeron annuus</i>	FACU	Yes	No
Garlic-Mustard	<i>Alliaria petiolata</i>	FACU	No	Yes
Deer-Tongue Rosette Grass	<i>Dichanthelium clandestinum</i>	FACW	Yes	No
Canadian Clearweed	<i>Pilea pumila</i>	FACW	Yes	No
Yellow Wood-Sorrel	<i>Oxalis stricta</i>	FACU	Yes	No
Poorman's-Pepperwort	<i>Lepidium virginicum</i>	FACU	Yes	No
American Pokeweed	<i>Phytolacca americana</i>	FACU	Yes	No
Purple Loosestrife	<i>Lythrum salicaria</i>	OBL	No	Yes
Sweet-Scented Joe-Pye-Weed	<i>Eutrochium purpureum</i>	FAC	Yes	No
Reed Canary Grass	<i>Phalaris arundinacea</i>	FACW	Yes	Yes
Shallow Sedge	<i>Carex lurida</i>	OBL	Yes	No
Dark-Green Bulrush	<i>Scirpus atrovirens</i>	OBL	Yes	No
Pale-Yellow Iris	<i>Iris pseudacorus</i>	OBL	No	Yes
Polygonum species	<i>Polygonum sp.</i>	NIS ⁴	NIS	NIS
Flat-top Goldentop	<i>Euthamia graminifolia</i>	FAC	Yes	No
Ryegrass species	<i>Lolium sp.</i>	NIS	NIS	NIS
Common or Oldfield Cinquefoil	<i>Potentilla simplex</i>	FACU	Yes	No
Greater Celandine	<i>Chelidonium majus</i>	UPL	No	No
Broad-leaf Enchanter's Nightshade	<i>Circaea canadensis</i>	FACU	Yes	No
Vines				
Eastern Poison Ivy	<i>Toxicodendron radicans</i>	FAC	Yes	No

List of Lower Area Vegetation				
Common Name	Scientific Name	Wetland Indicator Status ¹	Native ²	Invasive ³
Virginia-Creeper	<i>Parthenocissus quinquefolia</i>	FACU	Yes	No
Climbing Nightshade	<i>Solanum dulcamara</i>	FAC	No	No
Hedge False Bindweed	<i>Calystegia sepium</i>	FAC	Yes	No
Grapevine	<i>Vitis sp.</i>	NIS	NIS	NIS
Allegheny Blackberry	<i>Rubus allegheniensis</i>	FACU	Yes	No

1. U.S. Army Corps of Engineers National Wetland Plant List: <http://rsgjsias.crrel.usace.army.mil/NWPL/>
2. U.S Department of Agricultural Natural Resource Conservation Service Plants Database: <http://plants.usda.gov/core/wetlandSearch>
3. Massachusetts Invasive Plants Advisory Group: <http://www.massnrc.org/mipag/index.htm>
4. NIS = Not identified to species

ATTACHMENT D

List of Upper Area Vegetation

List of Upper Area Vegetation				
Common Name	Scientific Name	Wetland Indicator Status ¹	Native ²	Invasive ³
Trees				
Northern Red Oak	<i>Quercus rubra</i>	FACU	Yes	No
Black Cherry	<i>Prunus serotina</i>	FACU	Yes	No
Bitter-Nut Hickory	<i>Carya cordiformis</i>	FAC	Yes	No
Norway Maple	<i>Acer platanoides</i>	UPL	No	Yes
White Ash	<i>Fraxinus americana</i>	FACU	Yes	No
Red Mulberry	<i>Morus rubra</i>	FACU	Yes	No
Big-Tooth Aspen	<i>Populus grandidentata</i>	FACU	Yes	No
Spruce species	<i>Picea sp.</i>	NIS ⁴	NIS	NIS
Shrubs				
Glossy False Buckthorn	<i>Frangula alnus</i>	FAC	No	Yes
Eastern Wahoo	<i>Euonymus atropurpureus</i>	FACU	No	No
Rambler Rose	<i>Rosa multiflora</i>	FACU	No	Yes
Shadbush species	<i>Amelanchier sp.</i>	NIS	NIS	NIS
Autumn Olive	<i>Elaeagnus umbellata</i>	NL ⁵	No	Yes
Currant species	<i>Ribes sp.</i>	NIS	NIS	NIS
Herbaceous				
New York Fern	<i>Parathelypteris noveboracensis</i>	FAC	Yes	No
Interrupted Fern	<i>Osmunda claytoniana</i>	FAC	Yes	No
Rough Avens	<i>Geum laciniatum</i>	FACW	Yes	No
White Snakeroot	<i>Ageratina altissima</i>	FACU	Yes	No
Northern Lady Fern	<i>Athyrium angustum</i>	FAC	Yes	No
False Lily-of-the-Valley	<i>Mainthemum canadense</i>	FACU	Yes	No
Bird Vetch	<i>Vicia cracca</i>	NL	No	No
Bedstraw species	<i>Galium sp.</i>	NIS	NIS	NIS
Dandelion	<i>Taraxacum officinale</i>	FACU	Yes	No
Daisy Fleabane	<i>Erigeron annuus</i>	FACU	Yes	No

List of Upper Area Vegetation				
Common Name	Scientific Name	Wetland Indicator Status ¹	Native ²	Invasive ³
Wood-sorrel species	<i>Oxalis sp.</i>	NIS	NIS	NIS
Vines				
Asian Bittersweet (formerly Oriental)	<i>Celastrus orbiculatus</i>	UPL	No	Yes
Broad-leaf Enchanter's Nightshade	<i>Circaea canadensis</i>	FACU	Yes	No

1. U.S. Army Corps of Engineers National Wetland Plant List: <http://rsgisias.crrel.usace.army.mil/NWPL/>
2. U.S Department of Agricultural Natural Resource Conservation Service Plants Database: <http://plants.usda.gov/core/wetlandSearch>
3. Massachusetts Invasive Plants Advisory Group: <http://www.massnrc.org/mipag/index.htm>
4. NIS = Not identified to species
5. NL = Not listed

ATTACHMENT E

List of Wildlife That Could Potentially Inhabit or Visit the Site

List of Wildlife That Could Potentially Inhabit or Visit the Site	
Common Name	Scientific Name
Mammals ¹	
American Beaver	<i>Castor canadensis</i>
Eastern Chipmunk	<i>Tamias striatus</i>
Eastern Coyote	<i>Canis latrans</i>
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>
Fisher Cat	<i>Martes pennanti</i>
Mink	<i>Mustela vison</i>
Muskrat	<i>Ondatra zibethicus</i>
North American River Otter	<i>Lontra canadensis</i>
Raccoon	<i>Procyon lotor</i>
White-tailed Deer	<i>Odocoileus virginianus</i>
Reptiles and Amphibians ²	
American Toad	<i>Bufo americanus</i>
Fowler's Toad	<i>Bufo fowleri</i>
Spring Peeper	<i>Pseudacris crucifer</i>
American Bullfrog	<i>Rana catesbeiana</i>
Green Frog	<i>Rana clamitans</i>
Wood Frog	<i>Rana sylvatica</i>
Pickerel Frog	<i>Rana palustris</i>
Northern Leopard Frog	<i>Rana pipiens</i>
Gray Tree Frog	<i>Hyla versicolor</i>
Painted Turtle	<i>Chrysemys picta</i>
Eastern Snapping Turtle	<i>Chelydra serpentina</i>
Blue-spotted Salamander	<i>Ambystoma laterale</i>
Yellow-spotted Salamander	<i>Ambystoma maculatum</i>
Eastern Gartersnake	<i>Thamnophis sirtalis sirtalis</i>
Northern Watersnake	<i>Nerodia sipedon</i>
Eastern Milksnake	<i>Lampropeltis triangulum</i>
Avifauna ³	
American Black Duck	<i>Anas rubripes</i>
American Crow	<i>Corvus brachyrhynchos</i>
American Goldfinch	<i>Spinus tristis</i>
American Robin	<i>Turdus migratorius</i>
Baltimore Oriole	<i>Icterus galbula</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>

List of Wildlife That Could Potentially Inhabit or Visit the Site	
Common Name	Scientific Name
Black-capped Chickadee	<i>Poecile atricapillus</i>
Blue Jay	<i>Cyanocitta cristata</i>
Brown Creeper	<i>Certhia americana</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Canada Goose	<i>Branta canadensis</i>
Carolina Wren	<i>Thryothorus ludovicianus</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Chipping Sparrow	<i>Spizella passerina</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Common Grackle	<i>Quiscalus quiscula</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
European Starling	<i>Sturnus vulgaris</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Great Blue Heron	<i>Ardea herodias</i>
Green Heron	<i>Butorides virescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Herring Gull	<i>Larus argentatus</i>
House Sparrow	<i>Passer domesticus</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Osprey	<i>Pandion haliaetus</i>
Ovenbird	<i>Seiurus aurocapilla</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Ring-necked Duck	<i>Aythya collaris</i>
Rock Pigeon	<i>Columba livia</i>
Song Sparrow	<i>Melospiza melodia</i>

List of Wildlife That Could Potentially Inhabit or Visit the Site	
Common Name	Scientific Name
Tree Swallow	<i>Tachycineta bicolor</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
Turkey Vulture	<i>Cathartes aura</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Wood Duck	<i>Aix sponsa</i>
Wood Thrush	<i>Hylocichla mustelina</i>
Yellow Warbler	<i>Setophaga petechia</i>
Fish ⁴	
Banded Sunfish	<i>Enneacanthus obesus</i>
Black crappie	<i>Pomoxis nigromaculatus</i>
Bluegill	<i>Lepomis macrochirus</i>
Brown bullhead	<i>Ameiurus nebulosus</i>
Chain pickerel	<i>Esox niger</i>
Common carp	<i>Cyrinus carpio</i>
Creek chubsucker	<i>Erimyzon oblongus</i>
Fallfish	<i>Semotilus corporalis</i>
Golden shiner	<i>Notemigonus crysoleucas</i>
Largemouth bass	<i>Micropterus salmoides</i>
Pumpkinseed	<i>Lepomis gibbosus</i>
Rainbow trout	<i>Oncorhynchus mykiss</i>
Redbreast sunfish	<i>Lepomis auritus</i>
Redfin pickerel	<i>Esox americanus</i>
Spottail shiner	<i>Notropis hudsonius</i>
White sucker	<i>Catostomus commersoni</i>
Yellow bullhead	<i>Ameiurus natalis</i>
Yellow perch	<i>Perca flavescens</i>

1. http://www.concordma.gov/pages/concordma_finance/clrp/chapter_6.pdf
2. <http://www.npwrc.usgs.gov/resource/herps/amphibid/index.htm>
3. <http://www.greatmeadowsconcord.com/p/recent-bird-sightings.html>; <http://bna.birds.cornell.edu/bna/species>
4. <http://www.oars3rivers.org/river/wildlife/fish/surveys>

MANAGEMENT RECOMMENDATIONS

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1.1 Regulatory Review

1.1.1 Introduction and First Step

The laws, regulations and programs of the United States, Commonwealth of Massachusetts and Town of Concord that govern the protection of historic buildings and properties, wetland resources, and conservation lands are intertwined.

A thorough review of the regulatory controls on conservation lands in the Town of Concord is not within the purview of this study report. In order to fully comprehend the extent of and limits to regulatory controls applied to the Wheeler-Harrington House and Harrington Park, we recommend the Natural Resources Commission secure the services of a qualified Massachusetts Wetland Scientist with expertise in resource delineation and regulatory policy to determine all applicable jurisdictional limits along the margin of the Assabet River.

A thorough and detailed survey of existing conditions should immediately follow the wetland delineation. That survey should be prepared by a Massachusetts Registered Professional Land Surveyor and should be in accordance with applicable State and Town wetland protection regulations.

- a. Services of the Wetland Scientist would include:
 - i. Delineating wetland resource areas in accordance with the requirements and provisions of the Town of Concord Wetlands Protection Bylaw and the Massachusetts Wetlands Protection Act, as amended by the Rivers Protection Act;
 - ii. Advising to the extent of regulatory jurisdiction under Federal, State and Local rules and regulations.
- b. Services of the Land Surveyor would include:
 - i. Preparing an existing conditions survey, including property lines, topography, and all existing features of the 15.22-acre property. The survey would show the delineated wetland resource areas and extent of jurisdictional 25, 50, 100 and 200-foot buffer zones
 - ii. Additional existing features to be identified and located would include all existing structures, utilities, all trees over 6-inch caliper, limits of garden and shrub beds, current mown paths and access routes, and amenities located within the property.

Attention is directed to Part 6.0 Regulatory Assessment in the Environmental Assessment prepared by TRC Environmental Corporation. TRC briefly identifies Federal, State and Local regulatory controls over the Wheeler-Harrington House, the residential landscape and Harrington Park.

1.1.2 Federal Regulations and Recommendations

The Clean Water Act (CWA) regulates discharges of pollutants into the waters of the United States and regulates quality standards for surface waters. Under the CWA, the Environmental Protection Agency has issued the 2012 Construction General Permit for Massachusetts, which in part governs stormwater discharge from construction activities (such as clearing, grading,

excavation and stockpiling) that disturb one or more acres, or smaller sites that are part of a larger common plan or sale.

The National Pollutant Discharge Elimination System (NPDES) stormwater program regulates any construction project undertaken within the riverfront area of the Wheeler-Harrington Property. If, at any time in the future, the Town of Concord decides to construct trails, boat and canoe launches, boardwalks, or other amenities along the Assabet River, permitting under the Construction General Permit would be required. The notification process is abbreviated due to the property being listed on the National Register of Historic Places.

Recommendations: The Wetland Scientist would advise the Town on which kinds of activities would require notification under Federal requirements. Such activities might include constructing an elevated board walk as part of its trail system within the riverfront area or establishing a canoe or boat launch onto the Assabet River, or any other activity that might require excavation that might discharge soil or sediment into the Assabet River. Coordinate Federal notifications required under the General Permit with the Massachusetts Wetland Protection Act.

It is also important to note that the November 2012 Modification to the General Permit provides exemptions from a full notification and permit application when the subject property is listed on the National Register of Historic Places.

This is in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA).

Since the Wheeler-Harrington House is listed on the National Register, the Town is allowed to pre-notify the district engineer of the proposed construction activity. If the district engineer determines the construction activity has no potential to affect the historic property then the district engineer may determine that consultation under Section 106 of National Historic Preservation Act of 1966 (and amendments per 36 CFR Part 800) is not required.

Construction could not commence until the district engineer has notified the Town that the proposed activity has no potential to affect the property.

1.1.3 Commonwealth of Massachusetts Wetlands Protection Laws

Work within the flood plain of the Assabet River will be subject to Massachusetts General Law Chapter 131 §40 Wetland Protection Act, as amended by the Rivers Protection Act, and 310 CMR 10.00 Wetlands Protection Act Regulations.

Recommendations: Wetland and water resources within the Wheeler-Harrington Property may include, for example, the Assabet River and bank, land under water, intermittent streams, channels, vernal pools, the floodplain and isolated land subject to flooding, wooded swamps, wet meadows and other bordering vegetated wetlands.

The Natural Resources Commission can submit to the Town an Abbreviated Notice of Resource Area Delineation (ANRAD, WPA Form 4A) to confirm the extent of resource areas, buffer zones and jurisdictional controls over upland areas.

Agricultural activities are subject to the jurisdiction of the Massachusetts Wetland Protection Act when they occur within the resource areas (and their 100-foot and 200-foot buffer zones) defined in the Act.

Many normal farming activities, including activities related to vegetable and grain production, forestry and woodlot management and animal husbandry, may be exempt from regulation under the Wetlands Protection Act. In so far as new agricultural activities are not exempt from the Wetlands Protection Act, some areas of agriculture and some farming-related activities on the Harrington Park property may require review by the Natural Resources Commission. The Natural Resources Commission may order some conditions or restrictions on activities within resource areas and their buffer zones.

We recommend the Concord NRC issue an Order of Resource Area Delineation for the entire Harrington Park property. An ORAD can establish whether agricultural areas of the Harrington Park property are subject to the jurisdiction of the Wetlands Protection Act.

1.1.4 Protection under the National Register of Historic Places.

The Wheeler-Harrington property is listed in the National Register of Historic Places (NR), the official list of the Nation's historic places worthy of preservation. The National Register is part of a national program to support public and private efforts to identify, evaluate and protect historic resources. Inclusion on the NR is an honorary designation that allows the property to be eligible for historic tax credits and other funding opportunities.

The National Register falls under the mandate and control of the National Park Service. A series of guidelines for historic preservation have been developed and given the imprimatur of the United States Secretary of the Interior Standards for the Treatment of Historic Properties, which identifies standards for preservation, rehabilitation, restoration and reconstruction. (see below)

While Congress enables the National Register, the NR does not have policing or enforcement powers that can be applied to threats to historic properties. NR properties are afforded limited protection from adverse effects of federally assisted projects and, through automatic inclusion in the State Register of Historic Places, limited protection from state action. While NR listing is an important preservation-planning tool that is designed to encourage preservation, it does not guarantee that listed properties will be preserved. The NR provides limited protection from state and federal actions, as well as eligibility for certain matching state restoration grants when available.

1.1.5 Town of Concord Protections of the Wheeler-Harrington Property

The Town of Concord recognizes the historic significance of the Wheeler-Harrington Property. The Wheeler-Harrington House is specifically protected by the Demolition Delay BYLAW, which requires a six month delay period for demolition of historic structures in the Town.

While not protecting the House from outright demolition, the Bylaw would encourage the owner of the House (The Town of Concord) to seek out persons or groups of people who might be willing to purchase, preserve, rehabilitate or restore the building. Failing to find an Owner

willing to preserve the House, the Bylaw would require a reasonable time period for public notice of the demolition and offer the community an opportunity to discuss means of preserving the House.

The Town has established a revolving fund for the upkeep, repair, maintenance, improvements and restoration of the Wheeler-Harrington House and the grounds surrounding the House under the Harrington House Revolving Fund BYLAW.

The Town of Concord has shown its commitment to historic preservation elsewhere in Town by passing the Special Act establishing Historic District Zones and creating the Historic District Commission. The Historic District Commission has been granted specific powers to preserve and protect historic buildings and places with the designated Historic Districts.

But unlike the powers and duties given to the Historic Districts Commission, the Town of has not granted the Concord Historical Commission any specific power or authority to protect the Wheeler-Harrington Property.

The Concord Historical Commission was established in 1973 by an Act of Town Meeting to “identify and safeguard for posterity the unique physical attributes of the town, as exemplified by the various sites, buildings, and other edifices of historic, literary, architectural, or archaeological significance to Concord.”

The Wheeler-Harrington Property is not absolutely protected against alteration or demolition by a specific Act or Bylaw within the Town of Concord. Protection of the House and the Property could be enacted at the State level, as described in the following Section.

1.1.6 Commonwealth of Massachusetts Historic Preservation Laws

Massachusetts General Law Chapter 9 §26C established the State Register of Historic Places and created the Massachusetts Historical Commission.

Listing on the National Register of Historic Places is a multi-step process involving approval by the Massachusetts Historical Commission (MHC), the Commonwealth’s historic preservation agency. The MHC administers the National Register program in Massachusetts. Properties listed in the NR are automatically listed in the State Register of Historic Places. The principle use of the State Register is to serve as a reference guide to whether a state funded, permitted or licensed project will affect a historic property.

All properties listed on the National Register that are owned by Massachusetts cities and towns are eligible to compete for grants from the Massachusetts Preservation Project Fund, a matching fund program that supports preservation and maintenance of historic properties. If Concord were to receive a grant from the Massachusetts Preservation Project Fund (MPPF) for any aspect of rehabilitation or restoration of the House or Property then Wheeler-Harrington Property would be subject to Massachusetts Historical Commission review for any alteration moving forward.

Were the Wheeler-Harrington Property a privately owned parcel, there would be no constraint on what the owners could choose to do with the property when using private funds, unless

federal or state funds, permits or licenses are used. Local restriction may apply to work affecting a private property listed on the NR.

Unless the Town of Concord applies for and receives a grant from the MPPF, it is not obligated to seek Massachusetts Historical Commission approval for alterations to the House or Property. But other interested parties could challenge the Town's efforts to alter the House or Property by claiming the alterations would have an adverse effect on the House or the 15.22-acre landscape.

Should the Town move to change the use of the Wheeler-Harrington House to Town offices, for example, concerned community groups might petition the Massachusetts Historical Commission (MHC) to intervene. If the MHC determines a project would have an adverse effect to a significant historic property, the MHC has the power to consult with project proponents, other government agencies and interested parties to identify prudent and feasible measures that would avoid, minimize or mitigate adverse effects to the historic property.

MGL Chapter 9 §27 stipulates the Massachusetts Historical Commission may establish standards for the care and management of certified National Register properties. No certified historic landmark may be altered so that the alteration seriously impairs its historical values without permission of the MHC. The MHC may withhold permission for up to one year during which time the Commission would consult with interested parties to ascertain what actions, if any, ought to be taken to preserve the historic asset. The Massachusetts Superior Court has ultimate jurisdictional control to enforce the provisions of Chapter 9 §27. Upon petition by any party in interest to the Wheeler-Harrington Property, the Superior Court can enforce the provision of Chapter 9 §27 and can administer Section 27 to eliminate, minimize or mitigate adverse effects to the subject property.

1.1.7 Article 97 and Conservation Protections in the Town of Concord

During the Town Meeting of 1973, the Town of Concord voted to acquire the 15.22 acres of Harrington Park, including the Wheeler-Harrington House. The House and the land were deeded to the citizens of Concord, acting through the Concord Natural Resources Commission.

The Deed for Harrington Park and the Wheeler-Harrington House includes the following information:

- a. Southern Middlesex County
- b. Grantors: David C. LeBallister, Ralph H. LeBallister
- c. Grantees: Town of Concord
- d. Document #: 60078525
- e. Book/Page: 12639/350
- f. File Date: 05/30/1974
- g. Consideration: \$125,000.00

The Deed of ownership for the 15.22-acre property comprising Harrington Park and the Wheeler-Harrington House describes in detail the bounds of the property (1,277.75 feet on Harrington Avenue, for example). The Deed does not explicitly state that the acquired land was purchased for either conservation or recreational use.

Even though the deed does not designate the acquired land as conservation land, Harrington Park is shown as recreational and open space land on the map titled Town of Concord Recreational and Open Space Lands, prepared by the Town of Concord Division of Natural Resources.

(http://www.concordma.gov/pages/ConcordMA_NaturalResources/ConservationLand/landguidemap.pdf).

Harrington Park appears on the Massachusetts GIS website as land owned by the Town of Concord as Open Space with level of protection IN PERPETUITY, although there is no definition of what 'in perpetuity' means.

http://maps.massgis.state.ma.us/map_ol/oliver.php

Likewise, Harrington Park appears on the Concord MA GIS website with the designation of Town Conservation Land.

(<http://www.mapsonline.net/concordma/index.html>)

The Natural Resources Commission stipulates the Wheeler-Harrington Property is recreational and conservation land. As such it is subject to Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts.

Article 97 declares the people of the Commonwealth have a right to conserve, develop and utilize agricultural, mineral, forest, water, air and other natural resources for public purpose. The Article stipulates that lands and easements taken for such purposes cannot be used for other purposes or otherwise disposed of except by laws enacted by a two-thirds vote by the General Court, which is the Commonwealth's legislature (both the Massachusetts House of Representatives and the Massachusetts Senate).

1.2 Long-Term Governance of the Property

1.2.1 Preface

Currently, the Deputy Town Manager through the Town Manager's Office oversees the management of the Wheeler-Harrington House. The Concord Historical Commission actively supports the Deputy Town Manager. The Concord Natural Resources Commission oversees the Harrington Park landscape with support from various other Town departments.

The resident tenant caretakers of the property, Peter and Jane Benes, currently perform the day-to-day management of the House and the residential landscape.

The role that Peter and Jane Benes have played as tenants and caretakers for the Town has proven mutually beneficial to the Town and the Benes family. The Beneses have made the Wheeler-Harrington House into a home for their family, have repaired and improved the House and managed the residential landscape. They occasionally play host to visitors and the community, gladly sharing the historic qualities of the House. Their occupancy has insured the house against trespass, vandalism and crime.

Their tenancy and day-to-day residency significantly protects the Wheeler-Harrington House from unwanted attention. The established residential landscape – all of their own planting – forms a strategic line defining private from public. Their constant presence on the land is watchful attention to any natural or man made change that might occur. The role the Beneses play as tenant caretakers is the principle model of day-to-day management.

Other models for the long-term governance of the House and Property could be developed. The following alternatives include the current caretaker tenant model and several others that have been vetted by the Historical Commission and the Natural Resources Commission.

1.2.2 The Residential Caretaker Tenant Model

This model carries the Benes tenancy role forward. The day-to-day management of the Wheeler-Harrington House and residential landscape would continue to be through the resident caretaker tenant. Harrington Park would continue to be managed through the Natural Resources Commission.

The Caretaker Tenant model has both advantages and disadvantages worth noting:

- a. Advantages:
 - i. The Town retains ownership of the House and Property.
 - ii. The tenants would have license to modify the landscape and address minor architectural issues.
 - iii. The financial arrangement between tenant and owner can be adjusted to the Town's advantage, allowing favorable rental terms in exchange for services defined by agreement.
 - iv. As discussed above, residency is active protection superior to alarms and police attention.
- b. Disadvantages:
 - i. Like any rental agreement, selection of a tenant can be an arduous task and there is never a full guarantee of appropriate behavior.
 - ii. Access to the House and its contents is subject to scheduling with the tenants, which reduces the freedom of access that other models of management might afford.

The Benes' role of tenant caretakers is one model of how the property could be managed in the future. Other models have been suggested.

1.2.3 The Farming Tenant Caretaker Model

As a subset of the preceding Tenant Caretaker Model, the Town might consider selecting a farmer tenant with interest in a long-term agricultural tenancy.

As land values in eastern Massachusetts have increased in recent decades, farmers have been squeezed out of land ownership. Many men and women from farming backgrounds may find a farming and residential tenancy to their interest. This model would return the House and upland landscape back to its historic use – a farming homestead.

The upland portion of Harrington Park from the residential driveway westward could be combined with the active agricultural operation on the adjacent, Town-owned lot to create a working farm.

To the list of Advantages and Disadvantages for the Residential Tenant Caretaker Model identified above, add the following:

- a. Advantages (continued from above)
 - v. A Town-Tenant lease for farming and residency could include community supported agriculture (CSA),
 - vi. Opportunities for education. Model could be used for community participation in farming activities, including observing farm animals typical of the historic era
- b. Disadvantages (continued from above)
 - ii. The acreage involved may not provide sufficient income to a farmer and farm family. Supplemental payments, whether direct money transfers or simple rent and upkeep subsidies to the farmer-tenant-caretaker may be required for this model to work.
 - iii. Being chosen for his/her agricultural expertise, it is likely the tenant would have very little knowledge or appreciation of the historic nature of the House, nor the time/ability to execute any substantive repairs.

1.2.4 Town Occupancy

An agency or department of Concord Town government could move into the house and use the space as a Town office.

This has both advantages and disadvantages.

- a. Advantages:
 - i. The Town already owns the building and grounds so there would be no costs to purchase new office space if the Wheeler-Harrington House were converted to town office space.
 - ii. The property is not centrally located. Some might consider a satellite Town office in West Concord as an advantage.
 - iii. Town occupancy during the day would insure a steady coming and going during daylight hours.
- b. Disadvantages
 - i. The Massachusetts Historical Commission may restrict this option, as it would significantly alter the historic fabric of the House.
 - ii. The costs to convert the House's architecture into a universally accessible office building would be high. (Please review the findings of the Historic Structure Assessment regarding universal access.)
 - iii. Conversion would alter the historic structure of the building.
 - iv. Conversion would alter the historic landscape and require substantial alteration of driveway, parking area and the existing residential gardens around the house.

- v. The House is not universally accessible from Harrington Avenue and constructing an accessible route might require relocating the historic driveway.
- vi. Conversion would alter the historic use of the entire property, from a residential House and landscape into a governmental facility.
- vii. The property is not centrally located and some might consider a satellite Town office to be a burden to staff, the user public and the neighbors.
- viii. The House would not be occupied at night, leaving the facility vulnerable to trespass, vandalism or theft. Even if a security system were installed, the response time to Harrington Avenue might not be as fast as would be needed.

1.2.5 Deed or Management Transfer to a Non-Profit

The Town of Concord might consider a deed or management transfer of the Wheeler-Harrington House and Harrington Park to a non-profit, historic preservation organization such as Historic New England or The Trustees of Reservations. Both organizations receive financial support from membership dues, annual contributions, property admission fees, special events, grants, and endowments. Both organizations have an established history of care and management of historic properties.

Historic New England, previously known as the Society for the Preservation of New England Antiquities (SPNEA), is a charitable, non-profit, historic preservation organization. Owning properties in 5 of the New England states, it self identifies as a museum of cultural history that collects and preserves buildings, landscapes and collections of historic artifacts for public access and appreciation of historic significance.

Historic New England has accepted donations of historic properties for much of its history. The Spencer-Pierce-Little Farm is an example of how Historic New England received the deed to a working farm and historic home, preserving that property in an effective and generous manner.

The Trustees of Reservations owns and manages a broad range of properties across the Commonwealth of Massachusetts. Several of their owned holdings are listed on the National Register of Historic Places. TTOR owns and operates The Old Manse on Monument Street in Concord. It owns and manages Powisset Farm in Dover, Massachusetts, which is an active farmstead of pastures, planted fields, vegetable gardens, farm animals, woodlands and wetlands on a 108-acre property.

TTOR also manages properties owned by local communities in Massachusetts. It manages per contract the Westport Town Farm in Westport and the Norton Point Beach in Edgartown.

Should the Town of Concord, by financial necessity or lack of community interest and support, find itself needing to dispose of the Wheeler-Harrington House and property, gifting these precious historic assets to a non-profit like Historic New England or The Trustees of Reservations might be an effective avenue of preservation and long-term public access to the property.

- a. Advantages:

- i. The Wheeler-Harrington House and Property would no longer be the financial responsibility of the Town. The Town will no longer have to spend scarce money on the upkeep and management of the House and 15.22 acres of landscape.
 - ii. The time and energy of Town employees to oversee and manage the house and property will be reserved for other worthy activities.
 - iii. Conservation and preservation restriction could be put into place to control alterations and changes to the House and landscape.
 - iv. With proper deed restrictions and caveats, public access might continue.
- b. Disadvantages:
- i. The Town no longer owns the House and Property and loses control over use and management of these historic assets.
 - ii. Access to the House and its contents will be subject to scheduling by the Non-profit, which reduces the freedom of access that other models of management might afford.
 - iii. Depending on its own management choices, the House might not be occupied at night, leaving the facility vulnerable to trespass, vandalism or theft.
 - iv. Non-profits are selective in which properties they will accept, choosing those properties that come with an established endowment to offset the costs of management and upkeep.

1.2.6 Reversion to Private Ownership with Preservation Restrictions in Place

If the Town concludes that its ownership of the Wheeler-Harrington Property is a financial burden then it has the option of selling the property to a private owner.

- b. Advantages:
- i. The same advantages of the Deed Transfer to a Non-Profit would apply to this alternative.
 - ii. The sale of the House and land would generate a great deal of money that could be utilized by the Town in other worthy endeavors.
- b. Disadvantages:
- i. It will take a vote of the General Court of the Commonwealth to dispose of Article 97 Property. (See discussion on Article 97)
 - ii. Public access to private property would necessarily be curtailed. Few property owners willingly allow public access to their lands and houses. Were the Town to try to put such access easements into place on the land, it could reduce the sales price for the property.
 - iii. Monitoring the Property for compliance with the conservation and preservation restrictions would be difficult. Reversion to private property means exactly that – the property become private. Access to the land and the House would be restricted. Over time, as active involvement in the affairs of the Wheeler-Harrington Property fades, there will be less and less oversight of the restrictions. When changes to the Property become noticeable to the Town, it might well be too late to repair or restore the damage.

- iv. Once the Wheeler-Harrington Property leaves Town ownership, it will never return. The earnest, concerned and heartfelt efforts of the Concord Community to purchase the Property in the 1970s for public benefit would be turned aside, and in a very real sense, dishonored by selling.

1.2.7 Evaluation:

Five models for the long-term governance of the House and Property have been developed, including the Residential Caretaker Tenant Model, the Farming Tenant Caretaker Model, Town Occupancy, Deed or Management Transfer to a Non-Profit and Reversion to Private Ownership with Preservation Restrictions in Place.

Three of these models have significant disadvantages, summarized as follows:

The Town Occupancy model would require significant alterations to the historic structure of the House for compliance to universal access laws at the State and Federal level. Town Occupancy would be a contrary proposition – in the process of saving the House the House would be historically compromised. The House would be vacant overnight, weekends and holidays.

Under the model of Deed or Management Transfer to a Non-Profit, the Town of Concord would lose absolute control of the Property. The Town would need to raise money for a stipend to accompany the deed transfer. The Town might find difficulty in raising money in order to dispose of historic property.

Reversion to Private Ownership is a 40-year retreat by the Town to an ownership model that would not have the Community's best interests at its heart. The short-term profit to the Town would surely be welcome but would be a one-time bump in revenue. The Property would cease being part of Concord's common wealth. There can be no guarantee that the private disposition of the Wheeler-Harrington Property would be the only retreat in the Town's commitment to historic preservation through Town ownership.

The Farming Tenant Caretaker Model: Of the two Tenant Caretaker models, the Farming model presents the greater set of challenges to the Town. The challenges presented by the Farming model include:

Historic Preservation:

1. If a Farming Tenancy were selected then considerable thought would need to be applied to balance the historic re-creation of an 18th or 19th century farmstead with contemporary farming practices.
2. Determining the most appropriate period of significance and applying Preservation, Restoration and Reconstruction standards to a historic re-creation of the property would be challenging.
3. Finding the correct balance between historic accuracy in a farmstead and contemporary profitability of a working farm would be challenging.

Practical Agricultural Issues:

1. If the farming tenancy model is selected then the Town must determine whether combining the adjacent farm parcels with the Wheeler-Harrington Property could create a tract of land large enough to serve as a working farm. Contacting the Massachusetts Department of Agricultural Resources may give the Town of Concord a better idea if the combined farmland on Harrington Avenue is enough to create a viable farm.
2. The Town would need to consult with the Concord Agriculture Committee, which consists of five residents appointed by the Board of Selectmen and is charged with advising the Selectmen concerning how the Town can support farming in Concord.
3. The Town would need to consider what kind of agricultural enterprise it would prefer? Different farming operations might include:
 - a. Farming as a teaching opportunity: Farming for profit might require a narrow range of farm production performed at great efficiency. Alternately, a farm might include a broad range of agriculture, including orchards, vegetable gardens, grain and grass production, meat/dairy/egg operations. A broad range of agriculture might be more self-sustaining for a farm family as it would have been 200 years ago but possibly less profitable for a contemporary farm family.
 - b. Community Supported Agriculture (CSA): The farmer could serve as an agent supporting the agricultural aspirations of Concord citizens. If a CSA is something the Town deems important then it should confer with the Massachusetts Master Gardener Association: <http://massmastergardeners.org/>. It is important to note that there are a number of private farms currently offering CSA operations in Concord and neighboring farms. Any Town-supported agricultural operation might be viewed as unfair public competition with local private enterprise.
 - c. Animal husbandry: The farmer might raise animals similar to those that would have been found on the Wheeler-Harrington Homestead at some specific time in history. Having an active farm of dairy cows, horses, pigs, sheep, chickens and fowl could serve the Concord community as an educational opportunity. A broad knowledge of raising farm animals would be required in all candidates.
 - d. Organic vs. conventional farming: Organic farming is an approach to agriculture that eschews the use of synthetic petrochemical fertilizers, herbicides and pesticides, plant growth regulators, hormones, antibiotic use in livestock or genetically modified organisms.
4. Finding the right tenant caretaker. Consider the kind of tenant that would best serve the interests of the Concord Community.
 - a. Age, farming experience, references, background. Does the farmer bring a family along?
 - b. Would the tenant farmer need to have a handyman's carpenter skill sets – the essential ability to repair and maintain a historic house while running an agriculture enterprise?
 - c. Would a background in historic preservation be a requisite quality for the handyman farmer? Is such a combination even feasible?

Farming Subsidies:

1. An essential question would need to be addressed: would the Town consider supplementing the farm income in pursuit of historic accuracy. If the acreage proves insufficient to provide for a modestly prosperous farming lifestyle, the Town could be faced with choosing between farming subsidies and abandoning the approach.

1.2.8 Recommendations:

The Residential Tenant Caretaker model appears to provide the greatest advantages and the most readily surmounted disadvantages of the five models. The Town retains ownership of the Property. The existing Harrington House Revolving Fund Bylaw is an established funding device dedicated to the upkeep of the landscape and the House. The Wheeler-Harrington Property is most easily preserved under the Residential model.

This report strongly recommends continuing to utilize the Caretaker Tenancy model of governance of the Wheeler-Harrington Property.

1.3 The Secretary of the Interior's Standards for the Treatment of Historic Properties

All repair and maintenance work on the Wheeler-Harrington Property should follow the United States Secretary of the Interior's Standards for the treatment of historic properties. These Standards promote consistent preservation practices and provide guidance for rehabilitation and adaptive reuse of historic properties, including architectural and landscape rehabilitation. While the Town is not obligated by law to adhere to the concepts contained in the Standards, we strongly recommend the Town comply with their guidelines.

The Standards establish four basic treatment approaches for historic properties: Preservation, Rehabilitation, Restoration and Reconstruction. The Town of Concord should utilize aspects of each of these four approaches over the coming decade as it repairs and manages the Wheeler-Harrington Property.

Of the four treatment approaches, we recommend the Town of Concord most frequently aim to apply the Preservation standards to repairs of the historic Wheeler-Harrington House structure. Applying the Preservation standards will allow the Town to retain, to the greatest extent possible, the historic fabric of the building. Where contemporary alterations are required, the Town should apply the Rehabilitation standards, which strive to retain the historic character of the building while adapting the structure to new uses.

For example, the Historic Structure Assessment recommends removal of the acrylic sheets at the front door sidelites of the House. New wood frames will be made for new protective glazing. The whole assembly should be installed with clips for easy removal. This recommendation combines both Preservation and Rehabilitation approaches.

With respect to the Wheeler-Harrington Property and any consideration of construction a new barn or other agricultural outbuildings, we recommend that the Town consult the Secretary of

the Interior's publications on treatment of historic landscapes and, in general, apply a carefully crafted combination of the Secretary's Restoration and Reconstruction standards.

Explicit historic records of the configuration of the farmstead have not been uncovered by this current study. While we are confident the Wheeler-Harrington Property was a working farm for much of its history, we have not located records of the types of barns and outbuildings existing on the Property at various points in time. While a careful review of the landscape of the property might reveal possible locations for barns and outbuildings, this level of investigation was not carried out as part of the scope of this report.

Absent a definitive historic record of land use for the property, the Town will need to determine a period of significance for new agricultural architecture and fashion a master plan for Preservation, Restoration and Reconstruction treatment that best approximates the presumed period of significance.

Applying the *Reconstruction* standards to design and construction of new farm buildings using contemporary materials could re-create a semblance of the vanished, non-surviving farm landscape, primarily for interpretive purposes.

1.4 PRIORITY MANAGEMENT RECOMMENDATIONS

1.4.1 Overview and Summary

Four consultant groups prepared assessments of existing conditions of Harrington Park and the Wheeler-Harrington House.

CRJA-IBI Group prepared the Cultural Landscape Report (CLR). The CLR summarizes the landscape history of the Property. It describes the existing landscape conditions of the residential setting of the Wheeler-Harrington House, its upland fields, copses, slopes and woodlands, as well as the wetland landscape along the Assabet River. Landscape management recommendations are made throughout the CLR.

Spencer & Vogt Group and their sub-consultant Structures North have developed a detailed Historic Structure Assessment of the Wheeler-Harrington House, providing a visual survey of architectural and structural components of the House. Their existing conditions assessment is a methodical, visual review of the entire structure, including the exterior elevations, roof and chimneys, all facades, and the interior conditions from basement to attic. Architectural and structural treatment recommendations are provided in detail throughout the Historic Structure Assessment.

TRC Environmental Corporation describes the existing conditions related to the natural resources of the entire property, including water resources, vegetative communities and wildlife, and geology and soils. TRC describes current recreational uses and provides a regulatory assessment of the property. Management recommendations are made at the end of their report.

These 3 assessments – landscape, structure, and environmental – overlap one another in several areas. For example, the Historic Structure Assessment of the House includes recommendations related to landscape treatment at the base of the building. The Cultural Landscape Report and the Environmental Assessment describe and discuss invasive plant species on the property. With minor exception, the assessments by these different disciplines are consistent and complementary.

Together, the three reports - the CLR, Historic Structure Assessment and the Environmental Assessment - describe the physical conditions of Harrington Park and the Wheeler-Harrington House that existed between April and September of 2014. As a whole, these reports develop a series of focused management and treatment recommendations that will stabilize and enhance the property and help to insure the building and grounds remain cultural assets for future generations.

1.4.2 Historic Structure Assessment

The Historic Structure Assessment addresses the physical conditions of the Wheeler-Harrington House and prioritizes action items to preserve and maintain the cultural heritage of the House.

Spencer & Vogt Group, Architectural Preservation, and Structures North of Salem prepared the Historic Structure Assessment. Their recommendations have been prioritized from Priority 1; Repair immediately, to Priority 5; Continue regular maintenance.

In the Summary of Probable Costs, SVG identifies probable costs for individual repair items. These costs can serve as a guide for construction costs. But as the Town moves forward with construction work, it should bear in mind that these prices were accurate in September 2014. As the construction industry in eastern Massachusetts has started to pull out of the recession of 2008 - 2011, costs of construction have been rising at a significant pace. The recent recession caused many medium- to small-sized construction companies to go out of business. Large companies contracted. As we return to a more robust construction period, demand for materials, labor and equipment has been outstripping supply. Unit costs for materials, labor and equipment are increasing on a quarterly basis. As the Town develops financial packages to fund construction, anticipate escalation and comfortable contingencies to cover actual bid pricing.

The Historic Structure Assessment is methodically presented. It focuses first on the exterior façade, roof and building components of the Wheeler-Harrington House. It moves on to recommend surficial treatment of select interior areas. And finally it makes a series of important structural recommendations. The architectural recommendations involve discussions of the roof system, the chimneys, roof run-off and conditions of the four façades. Structural inspection and recommendations follow floor by floor from basement to roof.

The assessment of exterior conditions and recommendations for repair and restoration break out along the following broad topics:

1. Poor initial construction or poorly constructed repairs over the course of centuries, which did not provide adequate protection against weather or environmental pressures and must be replaced

2. Historic building materials that have worn out over the intervening years and must be repaired or replaced.
3. Where inauthentic materials have been used for restoration, recommendations have been made to remove and replace.
4. Finally, the report identifies architectural issues where restoration requires concurrent alterations to the landscape around the historic building.

The Historic Structure Assessment was written in anticipation of commencing repair items immediately upon acceptance of the Assessment. As indicated below, there will need to be some interim steps taken before the Town of Concord can move forward with immediate repairs.

1.4.3 Landscape and Environmental Assessments – Immediate Action Items

CRJA-IBI Group and TRC Environmental Corporation have assessed the physical settings of the residential gardens of the Wheeler-Harrington House, the floodplain along the Assabet River and the upland slopes and fields of Harrington Park. Some of their recommendations support those of the architect and structural engineer and are intended to protect the building structure.

But the natural landscape is dynamic and changeable. Some change is cyclic, such as the seasonal change that brings spring floods and winter ice that cut the riverbank. Other cycles are measured in decades and more, such as the fifty and one hundred-year storms. Then there are the unexpected events such as occasional autumn hurricanes that can shatter the forest by destroying the tallest trees.

There are successional changes, such as when unmanaged meadow gives way to woody plant volunteers and in a person's life span grass turns to young forest.

Some of the landscape and environmental recommendations are intended to preserve the cultural landscape heritage of the property by stabilizing the site against environmental forces common to New England. Some recommendations address eradication of invasive exotic plants. But just as there was nothing to stop the chestnut blight of the 1800s or Dutch elm disease in the middle 1900s, there will be blights in the future.

While there are time-critical, priority issues of architectural and structural restoration that should be addressed as soon as possible, these issues are secondary to concerns for health and safety of people in the public way and the potential for catastrophic loss of the historic House. These landscape-related issues supersede the architectural recommendations. They include:

- Immediately remove the hazard tree that overhangs Harrington Avenue at the southeast corner of the front lawn of the property.
- Immediately remove the volunteer shrub species that grow around the black cherry tree immediately west of the driveway throat.

The old silver maple at the southeast corner of the lawn has a large limb that is overhanging Harrington Avenue. The tree trunk shows signs of decay and structural weakness. Simply removing the overhanging limb does not lessen the risk of the tree coming down in a storm and falling into the roadway.

The shrubbery west of the driveway reduces the sight lines of drivers pulling out onto Harrington Avenue from the Wheeler-Harrington House.

Protecting the Wheeler Harrington House from catastrophic damage is likewise a superseding priority. Were the worst case condition come to pass then all of the Priority 1 and Priority 2 issues would be for naught.

- Immediately remove two large Colorado blue spruce trees that stand over the House on the south lawn.

Please refer to specific recommendations from CRJA-IBI Group in the Cultural Landscape Report, Spencer & Vogt Group with Structures North in the Historic Structure Assessment, and TRC Environmental Corporation in the Environmental Assessment.

1.4.4 Structural Revisions to Town Management of the Wheeler-Harrington Property

The Town has benefited from the preservationist knowledge and skills of Peter and Jane Benes. As caretaker tenants, they exemplify the desired blend of experience, interest, care and attention to detail that future caretaker tenants should possess.

The skill sets and initiative of the Beneses have been so advantageous to the Town that Town officials may have felt content to leave decisions regarding repairs of the property to the sole discretion of the Beneses. Future caretaker tenants may not have the same level of initiative and dedication as the Beneses.

To better manage the repairs to the historic House and the overall management of the Wheeler-Harrington Property in the future, we recommend the Town develop a specific staffing approach within Town government to implement the recommendations of the Historic Structure Assessment, the Cultural Landscape Report and the Environmental Assessment.

The Town cannot anticipate continuing to rely upon future caretaker tenants to independently make important decisions regarding priorities, methods and materials of repair to the historic House. The Town must take an assertive ownership role in managing the entire Wheeler-Harrington Property. Decisions regarding means and methods of historic preservation should be made in a prescribed manner following specific protocols, with the responsibilities of all participants clearly defined. For example:

1. Preservation Administrator: a salaried Town official responsible for financial, restoration and landscape management of the Wheeler-Harrington Property. In collaboration with the Historical Commission and the Natural Resources Commission, the Preservation Architect develops strategic plans for the restoration of the historic structure and the landscape management of the entire Property. Serves as the liaison between consultants, repair craftspeople and the caretaker tenants.
2. Caretaker Tenant: a contract tenant responsible for the day-to-day management and upkeep of the House and the Property. The tenant lives in the House and provides the vital nighttime presence that insures security against vandalism and trespass. Identifies when building appliances and utilities need attention, such as plumbing,

- heating, water service, septic, and electrical systems. Will be present at specified times of the day to receive workmen, deliveries and consultants.
3. Consultants:
 - a. Preservation Administrator: an on-call professional under contract to the Town to provide direction and oversee implementation of the Historic Structure Assessment. Works in conjunction with the Landscape Architect. Identifies contractors and tradespeople capable of providing required restoration services. Periodically visits the Property during restoration work, observes construction and makes recommendations. Services provided under a yearly retainer or under a task-specific stipend. Contract structure to be determined by the Town. Select a local architectural consultant knowledgeable in historic preservation and restoration to serve as the Town's liaison to the next tenant caretaker. Many of the recommendations carried in the Historic Structure Assessment will require an educated and knowledgeable overseer of future repairs.
 - b. Wetlands Scientist: Start the wetland permitting process by hiring a wetland scientist to flag the resource areas as defined under State and local laws, rules and regulations. Prepare an Abbreviated Notice of Resource Area Delineation (ANRAD) and determine the kind of activities that can occur on the property.
 - c. Professional Surveyors to perform a full topographic survey of the entire 15.22 acres of the Wheeler-Harrington Property, including the wetland resource areas.
 - d. Site Designer: a Landscape Architect hired to serve in similar capacity as the Preservation Architect to implement the recommendations of the Cultural Landscape Report and the Environmental Assessment. A Landscape Architect would be hired to prepare a strategic master plan of landscape development.
 4. Restoration tradespeople: contractors with proven skills in preservation construction, restoration and repair work on historic buildings.

Defining these roles, securing the services of consultants and establishing specific staff positions within Town government will take time. Anticipate it will take between 6 and 12 months to implement a new structure in Town government. If Town bylaws, rules or regulations need to be revised then add 12 months to this timetable.

While these new positions are defined, money allocated and consultants selected, the existing Town administrators, staff and departments can address the critical structure and life-safety issues describe in the Cultural Landscape Report. Removing trees, shrubs and understory to protect public health and safety or to prevent catastrophic damage to the Wheeler-Harrington House should occur immediately. Consider these to be emergency measures.

1.4.5 Master Planning

The Town of Concord purchased the Wheeler-Harrington Property in the early 1970s specifically to save the property from private development. In hindsight, other than keeping the

property from being developed, there does not seem to have been any long-range design or management plans developed for the Wheeler-Harrington House and Harrington Park.

Long-range planning for the future of the Wheeler-Harrington Property is best achieved by developing a comprehensive master plan, overseen by the Historic Commission and the Natural Resources Commission and executed by a team of design consultants with proven expertise in landscape master planning.

The following sequence of Master Planning assumes the Town will retain ownership of the Wheeler-Harrington Property and will continue to utilize the Tenant Caretaker model for occupancy and day-to-day management of the House and land.

Preliminary Steps:

1. The Natural Resources Commission, the Concord Historical Commission and other concerned Concord stakeholders must determine which of the governance models offers the Town the greatest benefits and advantages.
2. In so far as the open field landscape west of the Wheeler-Harrington House is consigned to the agricultural operations of the neighboring farmstead, the Town must establish long-range management plans for those adjacent Town-owned agricultural parcels to the west.
3. Secure funding and select a consultant team to prepare a Master Plan document as outlined below.

Interim Steps:

1. Revise the structure for the Town Management of the Property. Select consulting preservationist architect to provide direction and oversee implementation of the Historic Structure Assessment (see Section 1.5.3). Commence repairs to House and residential landscape as described in the management recommendations in this Report.
2. Wetlands scientist flags wetland resource areas and develops analysis of opportunities and constraints for the Property based on wetland resources. Hire surveyor to perform survey of existing conditions. Secure an Order of Resource Area Delineation (ORAD).
3. Determine the controlling environmental and preservationist laws, rules and regulations at Federal, State and Local levels affecting future development and management of the property. Secure Order of Conditions.
4. Identify most advantageous Period of Significance.
5. Prepare a Master Plan Programming Document, which synthesizes:
 - a. Long-range management plans for agricultural lands on Harrington Avenue
 - b. Selected Tenant Caretaker model
 - c. Revised structure of town governance serving Wheeler-Harrington Property
 - d. ORAD, Order of Conditions, approvals from Concord Historical Commission
 - e. The Cultural Landscape Report
 - f. Historic Structure Assessment
 - g. Environmental Assessment

- h. Management Recommendations, including all Action Items on the specified time lines.
6. The MP Programming Document would identify the goals and constraints for restoration and reconstruction for the residential landscape, the upland agricultural fields and the riverfront meadow.
7. Identify community stakeholders. Present the MP Programming Document to community stakeholders in a public hearing. Solicit public comment.
8. Integrate comments into the MP Programming Document.

Master Planning for the Wheeler-Harrington Property:

Generally, a Master Plan is an evolving, long-term planning document. It establishes the framework and key elements of a site reflecting a clear vision created and adopted in an open, public process. It should synthesize community goals and aspirations for the Property and gives those goals an organization and form. It defines a realistic plan for implementation, including subsequent approvals by Town departments and commissions.

A strong master plan for the Wheeler-Harrington Property should have four key components.

First, the Master Plan should describe the large-scale organization of the site and the design principles, environmental constraints and ecological techniques that will shape the overall growth of the Property over time.

The Master Plan should distill comments and inputs from consultants, town officials, stakeholders and the at-large public into a list of preferred landscape and architectural elements for the Property. The Master Plan should define the relationships between elements by locating them within the site and proposing a specific system of drives and paths to link entrances and various destinations.

Second, the Master Plan should identify funding sources and strategies needed to restore and reconstruct the Property. It should recommend a management plan to maintain the Property in the long-term. The Master Planning team must engage local stakeholders committed to seeing the project through. Stakeholders must be involved in shaping, and ultimately, executing, the management plan.

Third, the Master Plan would describe a development schedule: which elements will be built first, which later; which decisions should be made early, which should be allowed to evolve in response to future opportunities and the desires of the public users of the Property. At the Wheeler-Harrington Property, strategic phasing is particularly important because the overall Property will be restored over a number of years, possibly with reconstructed and renovated sections opened to the public in a phased manner.

Fourth, the Master Plan should establish guidelines for the many designers who will draw up specific plans for the Property. A good set of guidelines will ensure that the built projects – a new trail system, signage, new barns and outbuildings, control of invasive species - are more than just the sum of its parts. Design guidelines will strengthen the

overall organization and form of the Property, without inhibiting the flexibility of programming or the creativity of designers working on individual buildings, public spaces, ecological habitats, or restoration of the residential landscape. The Master Plan should also include graphic images of different parts of the Property to illustrate the character of landscapes and key features and the relationship between architectural elements and the landscape elements.

The Master Planning process for the Wheeler-Harrington House should take about 24 months with several public meetings scheduled for the public input to direct Town decision makers.

Key elements of the Master Plan should be reviewed for potential effects on the surrounding neighborhood and the local environment in a public process. If the public at large perceives any adverse impacts by the restoration and reconstruction projects envisioned in the Master Plan then possible means of mitigating the impacts should be identified and incorporated into the Master Plan.

These effects may relate to traffic, air quality, noise pollution, waterways or other issues. In this phase of public comment and Commission review, the Town should evaluate whether the public interest is best served by the Master Plan. Public meetings should be held during these reviews so people can voice concerns about particular proposals and shape the final Master Plan.

When the proposed Master Plan is completed, the Town will need to submit the Plan to the Natural Resources Commission for permitting approval under the Wetlands Protection Act and to the Concord Historical Commission for consideration and signoff.

Environmental and preservation review could be expected to take up to 6 months, depending on how involved the Concord Historical Commission and the Natural Resources Commission are involved in the Master Planning process.

Based on the Master Plan and specific approvals by the regulatory agencies at local and state level, contracts for design and construction can proceed. Implementation of the Master Plan through design and construction contracts could be completed within two years.

1.5 Conclusions

Day-to-Day Management of House and Landscape: Based on the issues described in these Management Recommendations, the Town must move forward with due speed to select the next tenant caretaker.

The Town's Role: In the past, the Town has granted its tenant caretakers a great deal of license in determining the priorities, techniques, means and methods of repairs and alterations to the historic House. With the Wheeler-Harrington House now being listed on the National Register, historic preservation of the House must be a central priority to the Town. We strongly recommend the Town take a more activist role in overseeing the historic preservation of the

House, determining priorities, hiring craftsmen and allocating assets and resources to achieve the near-term and long-term recommendations contained in these pages.

Long-Range Planning: Engage a consultant team to develop a Master Plan for the preservation, rehabilitation, restoration and reconstruction of the Wheeler-Harrington Property.

1.6 Moving Forward

The following list of Action Items summarizes the recommendations of the Cultural Landscape Report, the Historic Structure Assessment and the Environmental Assessment.

PRIORITIZED ACTION ITEMS - WHEELER HARRINGTON PROPERTY				
PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
	EMERGENCY			
Immediately	Emergency	Road, Drive & Parking Lots	SE corner of front lawn at Harrington Ave	Remove hazard tree overhanging roadway
Immediately	Emergency	Road, Drive & Parking Lots	West of driveway throat	Remove shrubbery that obstructs views for exiting vehicles
Immediately	Emergency	Residential Landscape	South Landscape	Remove & discard Colorado blue spruce
	ADMINISTRATION			
1st Year	Administration	Wheeler-Harrington Property	Town Government	Develop new staff structure in Town government to manage property
1st Year	Administration	Wheeler-Harrington House	Consultant Contract	Hire preservationist architect for on-call restoration advise & oversight
1st Year	Administration	Wheeler-Harrington Property	Consultant Contract	Hire wetlands consultant, delineate resource areas, Notice of Intent
1st Year	Administration	Wheeler-Harrington Property	Consultant Contract	Hire surveyor to develop full survey of entire 15.22 acres

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
2nd Year	Administration	Wheeler-Harrington House	Town Government	ORAD, Order of Conditions
2nd Year	Administration	Wheeler-Harrington House	Town Government	Determine whether town must notify Mass Historical Commission on repairs
2nd Year	Administration	Wheeler-Harrington House	Consultant Contract	Hire landscape architect to develop strategic masterplan for future development
2nd Year	Administration	Wheeler-Harrington House	Town Government	Determine best caretaker model
3rd Year	Administration	Wheeler-Harrington House	Town Government	Determine qualifications for next general caretaker tenant. Interview and select tenant.
	LANDSCAPE & ENVIRONMENTAL			
2nd Year	Landscape	Harrington Park		Clear & grub undestory for visibility
2nd Year	Landscape	Residential Landscape		Remove hedgerow between parking area and west gardens
2nd Year	Landscape	Road, Drive & Parking Lots	Harrington Park parking area	Make parking lot visible
2nd Year	Landscape	Residential	West Garden Landscape	Design and manage stormwater
2nd Year	Landscape	Residential	South Façade and Landscape	Design and manage stormwater
2nd Year	Landscape	Residential Landscape	North Yard and Outbuildings	Design and manage stormwater

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
2nd Year	Landscape	Road, Drive & Parking Lots		Design and manage stormwater
3rd Year	Landscape	Wheeler Harrington Property		Evaluate invasive species and develop eradication protocols
3rd Year	Landscape	Harrington Park Upland		Better define driveway entrance
3rd Year	Landscape	Residential Landscape	North Yard and Outbuildings	Inspect septic system. Confirm regulatory compliance.
4th & 5th Year	Landscape	Wheeler Harrington Property		Investigate NHESP. Determine endangered species in West Concord
4th & 5th Year	Landscape	Wheeler Harrington Property		Eradicate invasive species
4th & 5th Year	Landscape	Harrington Park Upland		Enhance views from ridgeline down into riverfront
4th & 5th Year	Landscape	Harrington Park Upland		Prune & maintain apple orchard
4th & 5th Year	Landscape	Harrington Park Upland		Evaluate ridge trail system
4th & 5th Year	Landscape	Harrington Park Upland		Develop ridge trail. Integrate with Town path

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
4th & 5th Year	Landscape	Harrington Park Riverfront		Evaluate riverfront for trail system
4th & 5th Year	Landscape	Harrington Park Riverfront		Develop trail system
4th & 5th Year	Landscape	Residential Landscape	South Façade and Landscape	Remove & discard lilac hedge
4th & 5th Year	Landscape	Road, Drive & Parking Lots		Open up views of house - thin evergreen snow screen at driveway
6 - 10th year	Landscape	W-H Property		Enhance upland and wetland landscape to benefit endangered species
6 - 10th year	Landscape	W-H Property		Manage upland fields for bird nesting
6 - 10th year	Landscape	W-H Property		Develop way finding & interpretive signage
6 - 10th year	Landscape	Harrington Park Upland		Develop way finding and interpretive signage
6 - 10th year	Landscape	Harrington Park Riverfront		Develop way finding and interpretive signage
6 - 10th year	Landscape	Residential Landscape	South Façade and Landscape	Install new stone wall
6 - 10th year	Landscape	Residential Landscape	East Façade and Landscape	Monitor slope for stability
6 - 10th year	Landscape	Residential Landscape	North Yard and Outbuildings	Eliminate outbuildings, construct historic barns

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
	BUILDING EXTERIOR			
2nd Year	Building Exterior	Roofing & Flashing	Main entry hood	Soldered flat seam copper
2nd Year	Building Exterior	Rain Water Disposal	Main Entry Hood	Remove drip water trough
2nd Year	Building Exterior	Doors	Replace Acrylic Over Side Lites of Entry w/ Glass in Wood Frame	Protective Glazing
2nd Year	Building Exterior	Exterior Trim and Siding	East Gable End Main Block	Rake trim repair
2nd Year	Building Exterior	Exterior Trim and Siding	West Elevation of Kitchen Shed	Siding and Trim Repair
3rd Year	Building Exterior	Roofing & Flashing	Kitchen Shed Roof	Vent Stack Flashing
3rd Year	Building Exterior	Roofing & Flashing	Old Sink Room Roof to Old Kitchen Wall	Roof to wall flashing
3rd Year	Building Exterior	Roofing & Flashing	Kitchen Shed Roof to Old Kitchen Wall	Roof to wall flashing
3rd Year	Building Exterior	Roofing & Flashing	Old Kitchen Roof to Main Block Wall	Roof to wall flashing
3rd Year	Building Exterior	Roofing &	Replace CMU chimney	Chimney flashing
3rd Year	Building Exterior	Rain Water Disposal	Behind Gutter Along Kitchen Shed Roof	Remove and replace fascia board

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
3rd Year	Building Exterior	Rain Water Disposal	Corner where Old Sink Room meets Old Kitchen Gable	Create sump, catch basin and drainpipe to daylight
3rd Year	Building Exterior	Masonry	Repoint Old Sink Room	Repoint brick chimney
3rd Year	Building Exterior	Masonry	North Window in East Wall of Basement	Window mortar wash
3rd Year	Building Exterior	Masonry	Rubble Stone Sink Room Foundation	Foundation repointing
3rd Year	Building Exterior	Masonry	Rubble Stone Main Block South Elevation	Foundation repointing
3rd Year	Building Exterior	Exterior Trim and Siding	East Elevation Main Block Second Story	Investigate and Repair Clapboard Bulging
4 & 5th Year	Building Exterior	Roofing & Flashing	Kitchen Shed	Asphalt Shingle Roofs
4 & 5th Year	Building Exterior	Exterior Trim and Siding	All Elevations	Repair wood trim and clapboards and paint
6 - 10th year	Building Exterior	Roofing & Flashing	Remaining Roofs	Asphalt Shingle Roofs
6 - 10th year	Building Exterior	Roofing & Flashing	Entry Porches	Asphalt Shingle Roofs
6 - 10th year	Building Exterior	Windows	Paint and Reglaze	Storm Windows
6 - 10th year	Building Exterior	Windows	Paint and Reglaze	Windows

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
	BUILDING INTERIOR			
2nd Year	Building Interior	Basement	Water Service Entry	Rebuild bulged wall portion
2nd Year	Building Interior	Basement	West Bay Between Beam and Chimney	B4 - Replace Rotted Joist
2nd Year	Building Interior	Basement	Eastern Bay	B5 - Dutchman for crushed beam end and supplemental posts to adjacent beam
2nd Year	Building Interior	Attic	Attic Chimney	R-5 - Replace rotted header
3rd Year	Building Interior	Basement	West Bay of Basement	B2 - Repointing Rubble Foundation
3rd Year	Building Interior	Basement	Old Sill Between Main Block and Old Kitchen	B9 - Analysis and Reinforcement of Beam
3rd Year	Building Interior	Basement	West Wall of Main Roof	B13 - Examination and Dutchman Repair Sill
3rd Year	Building Interior	First Floor	Wall and Ceiling of Old Sink Room	Plaster repair and replacement
3rd Year	Building Interior	First Floor	Threshold of Old Sink Room from Old Kitchen	Close gap in flooring
3rd Year	Building Interior	First Floor	Utility Room in Kitchen Shed	Install through wall vent for dryer
3rd Year	Building Interior	First Floor	East Room Main Block	Repair Fireplace Brick, Clean Flue, Confirm Proper Operation of Damper
3rd Year	Building Interior	Attic	Attic Chimney	R-1, R-2 & R-3 - Reset loose brick, replace damaged and repoint in surrounding
3rd Year	Building Interior	Attic	Attic Chimney	R-4 - Replace missing bricks

PRIORITY	STATUS OR LOCATION	AREA, TYPE	LOCATION	ACTION ITEM
4 & 5th Year	Building Interior	Basement	East and West Basement Bays	B3 - Borate Treat Wood and Reinforce Deficient Framing
4 & 5th Year	Building Interior	Basement	Chimney base near stairs	B6 - Repoint Chimney Base
4 & 5th Year	Building Interior	Basement	Southeast corner	B7 & B8 - Repoint Cracked Mortar Joints
4 & 5th Year	Building Interior	Basement	Masonry Wall in Northeast Addition	B10 - Repoint Cracked Mortar
4 & 5th Year	Building Interior	Basement	Northwest Corner of Northeast Addition & East Wall of Main Block	B12 - Dutchman Repair Sill
4 & 5th Year	Building Interior	First Floor	Utility Room in Kitchen Shed	Replace utility room ceiling
4 & 5th Year	Building Interior	Second Floor	West Chamber	Paint Ceiling
4 & 5th Year	Building Interior	Second Floor	North Wall of East Chamber	Repair Cracked Plaster and Skim Coat

