INTERIM REPORT

From: Saint Mark's Street Park Working Group
To: Southborough Select Board
December 15, 2022

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SECTION ONE – SUMMARY and RECOMMENDATIONS:

SUMMARY

Between February through December 2022, the Working Group (WG) met 18 times in public meetings, and also held one public forum to discuss 3 park designs created by VHB as well as possible new designs. WG also discussed the theme, name and design of the space.

Although many aspects of the park are not definite at this point, the WG felt that presenting possible designs that have flexibility in design and cost, was useful information for decision making.

The archeological dig commissioned by St. Mark's School resolved the issue of potential unmarked burials, but opened up the possibility of other historically significant findings in this area that might be appropriate for marking.

Current uncertainty about ownership of the park land continues to be a subject of WG discussion, but is beyond the charge of the WG to resolve.

RECOMMENDATIONS

The Working Group recommends that any plan include the following:

- Planting native plants and shrubs;
- Planting trees, including large heritage trees;
- Planting lawn or native lawn alternative where appropriate;
- Leaving room for benches and a path through the parcel;
- Making space for historical markers;
- Making the space accessible to all members of the public;
- Focusing on a theme and potential name around Southborough's "Heritage"

The Working Group believes that further public comment and design should be solicited, such as in a Public Forum, and that a process be established for determining the success of the park. Keeping in mind that the park is in a central location in Southborough, both symbolically and physically, any design for the park should be truly visionary and inspirational through public input on the design of the park.

Furthermore, that four designs, as a result of VHB landscape engineering and from public comment, are inspirations for future, finalized designs. Below are the opinions of the Working Group on specific items and plans for consideration, again keeping in mind that the recommendations included are on an Interim basis, and are preliminary and in no way final.

The votes in these tables reflect general support for concepts, not necessarily complete endorsements of every detail. Each of these designs contain serious drawbacks and require further modifications.

Concept Plans	(Support - Oppose - Abstain)
Plan Submitted by Patti Fiore	7-0-0
VHB Concept Plan 3	4-2-1
VHB Concept Plan 1	1-6-0
VHB Concept Plan 2	1-6-0

Other Design Elements	(Support - Oppose - Abstain)
Extend Sidewalk to St. Mark's Circle	7-0-0
Patio	5-1-1
Room for Future Library Expansion	5-1-1

Ground Lighting	5-2-0
Electricity / WiFi	5-2-0
Shade Sails	3-4-0
Water Bubbler	3-3-1
Barrier / Fence on Route 85	2-5-0
Pond / Fountain	1-6-0

RECOMMENDATIONS CONCERNING WORKING GROUP

The Working Group requests written direction regarding possible funding sources for any development of the park.

The Group will meet again in January, 2023, to refine a possible design for the park.

SECTION TWO – VHB PARK DESIGNS

The WG met on Zoom with two representatives from VHB, Senior Project Manager Greg Russell and Landscape Architect Michael Kluchman on Aug. 4 to discuss our thoughts on the park, and again on Aug. 25 to review three designs presented by Michael Kluchman.

The WG had largely positive responses to the park designs, incorporating elements we supported, such as, but not limited to, heritage trees, simplified visual space, pollinator gardens, library use areas. public wi-fi, historic trails connectivity, and accessibility with universal design.

Before the meetings with Mr. Russell and Mr. Kluchman, the WG prepared a document: "Results of Working Group Design Features Prioritization," dated July 28, 2022. This listed our votes on various elements we thought would be appropriate for the park. This document was given to VHB to be used in preparing park designs.

The three park designs from VHB are attached at Appendix A. "Results of Working Group Design Features Prioritization" is attached at Appendix B.

Flexibility: Michael Kluchman stated that the elements in these designs could be rearranged, and sized differently.

Costs: Costs of building the designs can be adjusted depending on materials used.

SECTION THREE – ARCHEOLOGICAL DIG

In July 2022, St. Mark's School hired archeologist Dr. Greg Walwer of Archeological Consulting Services (ACS) to conduct a dig on the triangle, and to obtain the needed permits from the Massachusetts Historical Commission (MHC), and to file a report of the findings. The dig occurred around and after Labor Day Weekend (September 2-5), and the report, dated October, 2022, was prepared for St. Mark's School and submitted to MHC.

According to the report, no Native burials were observable on the site. However, there were several two late-nineteenth century foundations that were noted on the site. The ACS Report and a response to the report from MHC are included at Appendix C.

SECTION FOUR – PUBLIC FORUM INPUT

The public forum was held on Saturday Nov. 12 from 10 a.m. to noon, at the Public Safety Complex, to discuss the design, themes and name of the park. The meeting was heavily advertised in town media. The meeting was attended by 15 residents and the 7 members of the WG. The VHB designs were on posters and also printed sheets. The fourth design was an empty engineering drawing of the site. After 3-minute presentations by each WG member, there was a question and answer period; the facilitator was Roger Challen. After the Q and A, residents broke into 4 groups at tables and discussed the designs they would like to see in the site.

The public forum successfully engaged residents to participate in the design and naming of this site. The four tables produced the following written comments, which are noted with how many tables mentioned each item:

- "What can be added later / Focus on bare bones landscaping" (Mentioned Twice)
    - Limit Disruption to Property / Limit Hardscape
- Native Plantings / Pollinator Gardens (Mentioned Four Times)
    - Natural Lawn Alternatives / Minimize Lawn
    - "Scatter" of Lawn for Children to Sit
    - Aware of Bees
- Ground Lighting (Mentioned Three Times)
- Water Bubbler / Water Bottle Filler (Mentioned Twice)
    - Dog Fountain
- Gathering Space (Mentioned Three Times)
- Historical Marker (Mentioned Four Times)
    - Placards Facing Historic Buildings
    - Monument to William Washington
    - Southborough Tricentennial
    - Memorial in Old Burial Ground
    - History Walk Similar to Freedom Trail
- Shade Analysis (Mentioned Twice)
    - Shade Sails
- Plant Large Heritage Trees (Mentioned Twice)
    - Avoid Fruit Trees / Bird Nests above Seating Areas
- Benches (Mentioned Three Times)
    - Trex Benches
    - Iron / Granite Benches
    - Away from Road (Mentioned Twice)

- No Pond / Fountain / Water Works
- Electricity / WiFi
- No WiFi
- Barrier / Fence on Route 85 to Stop Children
- Extend Sidewalk to St. Mark's Circle
- Portion for Future Library Expansion
- Amphitheater-like Design
- EV Charger in Library Parking Lot
- Maze Shrubs
- Plaza in Southwest Corner
- "Movable Library" (sic)
- Music Circle
- Chess / Checkers tables
- Cornhole Installation
- Public Art
- Interactive Feature
- Photo Location
- "Smaller Capacity" (sic)
- Visible from Road
- Parking Space

Scanned originals of the sheets produced at the Public Forum are attached at Appendix D.

Several group participants sketched designs using some elements of the VHB designs. Participants Patricia Burns-Fiore and Sally Watters completed a design sketch after the meeting and forwarded it to the WG. With their permission it is included at Appendix E.

PARK NAME: Names suggested in the public forum focused on Southborough's history (William Washington Park, Tricentennial Park, Memorial Park). It was mentioned that it was possible to do a town-wide search and vote for a name, by asking residents and including students in the schools. General opinion was that calling the site "St. Mark's Street Park" is not an optimal naming of the space.

THEMES: The location of the park is appropriate for **Historical Remembrance**, including: Native peoples, enslaved peoples, early settlement by Europeans, and the line of sight of the three things needed for village incorporation: a church, militia ground, graveyard, from this plot.

SECTION FIVE – TIMELINE and CHARGES OF WORKING GROUP

ORIGINAL CHARGE:

The St. Mark's Street Park Working Group was created on Dec. 13, 2021, by the Select Board with the following charge:

The Select Board would like to assemble a working group of citizens and interested parties to generate a recommendation to the Select Board regarding what would fill the circular space in the center of the park that will be construction between the library and reconstructed intersection of St. Mark's Street and Route 85. The Select Board is particularly interested in placing a monument or marker in this space that would recognize and honor Native American history in Southborough. The Select Board also would like the working group to consider formulating a new name for this space.

The working group will consist of 7 at-large members who are Southborough residents. Members will be appointed by the Select Board at a duly posted public meeting following the advertisement for interest in serving on the working group. The working group shall elect its own Chair, Vice Chair, and Secretary.

The Select Board encourages the working group to invite a representative of the St. Mark's School and a representative of the Department of Public Works to participate as non-voting members.

The working group shall operate in accordance with the state conflict of interest laws. Members shall serve without financial compensation. All records of the working group shall be filed with the Select Board, and all agendas, minutes, and records of appointments shall be filed with the Town Clerk. These documents shall be open to public inspection in accordance with applicable Open Meeting Law and public records statutes.

The working group shall hold at least three (3) meetings in a public forum, either in person or by remote participation (i.e., Zoom, etc.), at which public comment is solicited and encouraged. The Town shall publicize the dates and times of working group meetings, and encourage public participation. The working group shall aim to deliver a recommendation to the Select Board by April 15, 2022.

MEMBERS:

The original charge sought to include stakeholders from various town boards and commissions who would represent a spectrum of town interests:

Original Working Group Members, town residents appointed by Select Board:

- Andrew Dennington – Select Board
- Grant Farrington – Historical Commission
- Margarite Landry – Library Trustees Chair
- Owen "James" Nichols-Worley – Resident; Student St. Mark's School
- William Sines – Public Accessibility Committee
- Daniel Blanchard, Teacher at Fay School (Start – June 2022)

Members Added After Revised Charge

- Frederica Gillespie – Open Space Preservation Committee Chair (Appointed June 30, 2022)
- Kevin Miller – Historical Commission Chair (Appointed June 30, 2022)

Meetings Held

Feb. 16, 2022
March 10, 2022
March 17, 2022
March 31, 2022
April 28, 2022
May 19, 2022
May 26, 2022
June 30, 2022
July 14, 2022
July 28, 2022
Aug. 4, 2022
Aug. 25, 2022
Sept. 15, 2022
Sept. 22, 2022
Oct. 27, 2022
Nov. 12, 2022 – Public Forum
Dec. 2, 2022
Dec. 8. 2022
Dec. 13. 2022

WORKING GROUP DISCUSSION OF ELEMENTS OF PARK

At the beginning, the Working Group was given the 2021 design provided by VHB for the Shared Streets Project grant, and the WG was tasked to design a memorial for the center space. The Plan is attached at Appendix F.

It soon became clear that the VHB design was not usable as it stood, due to removal of several elements. The Select Board had removed the playground from the design, and the WG determined that the proposed location of the history walk was not accessible.

In addition, several members of the WG had issues with the amount of hardscape in the design, which seemed appropriate for a city design but not for Southborough. The WG also had questions about the water mitigation engineering already performed.

The WG was functioning in a situation with a number of important and unresolved questions. This made for both occasional frustration, but also an opportunity to see expanded uses, meaning, and designs for the site.

The list of the primary unresolved elements was as follows:

A. Concerns **about Native remains**, and other historical vulnerabilities of the site.
B. Questions about **ownership of land,** and use of town monies for improvements to land that did not belong outright to the town.
C. Concerns about **cost of project** not being specified.
D. Concerns about use of **funds from Shared Streets** grant, and taxpayer objections that had been voiced in public meetings such as Town Meeting.
E. Concerns that the original charge was limiting the needs of the development of a park, and working group **discussions were addressing important issues that the original charge did not address**.

In addition, the WG had been researching and visiting memorial parks throughout New England and New York, and it was thought that there were many possibilities for excellent use of this space that would be productive to consider.

Accordingly, on June 9, Andrew Dennington went back to the Select Board and presented a Revised Charge which was accepted. New Members Gillespie and Miller were appointed to the working group in June, 2022.

REVISED CHARGE:

The Select Board would like to assemble a working group of citizens and interested parties to generate a written recommendation to the Select Board regarding the design and themes for the proposed park that will be constructed between the library and the re-constructed intersection of St. Mark's Street and Route 85. The Select Board is particularly interested in placing a monument or marker in this space that would recognize and honor Native American history in Southborough. The Select Board also would like the working group to consider formulating a new name for this space.

The working group will consist of nine (9) members who are Southborough residents. One (1) member shall be a representative from the Southborough Historical Commission, one (1) member shall be a representative from the Southborough Open Space Preservation Commission, and seven (7) members shall be at-large members. Members will be appointed by the Select Board at a duly posted public meeting following the advertisement for interest in serving on the working group. The working group shall elect its own Chair, Vice Chair, and Secretary. All terms shall expire on June 30, 2023.

The Select Board encourages the working group to invite a representative of the St. Mark's School and a representative of the Department of Public Works to participate as non-voting members.

The working group shall operate in accordance with the state conflict of interest laws. Members shall serve without financial compensation. All records of the working group shall be filed with the Select Board, and all agendas, minutes, and records of appointments shall be filed with the Town Clerk. These documents shall be open to

public inspection in accordance with applicable Open Meeting Law and public record statutes.

The working group should hold at least three (3) meetings in a public forum, either in person or by remote participation (i.e. Zoom, etc.), at which public comment is solicited and encouraged. The Town shall publicize the dates and times of working group meetings, and encourage public participation.

Appendix A

St Mark's Street Park Concept Plan 1

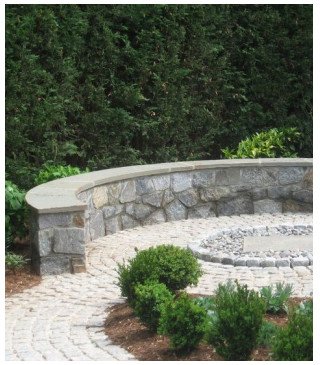
Precedent Images









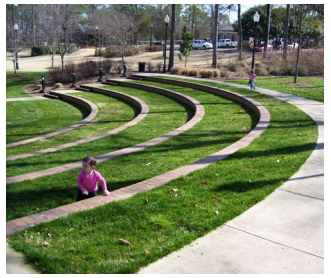

St Mark's Street Park Concept Plan 2

Precedent Images













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St Mark's Street Park Concept Plan 3

Precedent Images











Appendix B

Results of Working Group Design Feature Prioritization

St Mark's Street Park Working Group

July 28th, 2022

Park Idea Prioritization

Idea	Number of Members who Prioritized (out of 7)
ADA compliant and permeable path connecting park to other area/s of downtown	7
Historical Marker: Honoring unmarked graves / historically marginalized peoples who have not been recognized prior	7
1 or more bench/sitting area	6
All native trees/vegetation (except the lawn area), including pollinator garden	6
Open space (perhaps lawn) for gathering; may be used for library	6
Heritage tree – large single tree in center (?) of park	6
Partial history walk/connection to larger history walk throughout downtown	5
Noise Mitigation	3

Park Idea Prioritization Cont.

Idea	Number of Members who Prioritized (out of 7)
Lighting/safety	2
Gazebo/Stage for presentations or performances	2
Opening in the Old Burial Ground wall to connect to the park	1
General Notes/Comments outside of specific design elements	
Design must be dependent upon results of archaeological dig	3
“Peaceful contemplation area”	3
Evaluate site conditions (soil, hydrology, wind, slope etc.) prior to planning	2
Road construction	1
Drainage for library (completed)	1

Opposition to Ideas

Idea	Number of Members Opposed (out of 5)
Amphitheatre	4
Active recreation space (sports etc.)	4
Platform/Stage for presentations or performances	4
Extensive paths or hardscape	3
Figurative monument (sculpture)	2
Extensive shade and/or trees	2
Noise mitigation measures	2

Appendix C

PHASE I INTENSIVE (LOCATIONAL) ARCHAEOLOGICAL SURVEY

ST. MARK'S SCHOOL, HISTORY WALK PARK AND WALKWAY

SOUTHBOROUGH, MASSACHUSETTS

Prepared for

St. Mark's School

By

Gregory F. Walwer, Ph.D
and
Dorothy N. Walwer, M.A.

ACS

◆ ***Archaeological Consulting Services*** ◆

October 2022

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Abstract

An intensive (locational) archaeological survey was conducted for a proposed history walk park and walkway at a property measuring 1.7 acres in Southborough. The property contains the Old Burial Ground (SBR.801), within the Southborough Town Center (SBR.AG), and is part of the Southborough Center Historic District (SBR.AI) that is listed with the National Register of Historic Places. The burial ground has a formal establishment date and stone wall enclosure dating to 1727, although historic references indicate that a number of Nipmuc burials could have been located near the northeast corner of the cemetery. Systematic testing was conducted in 5-meter intervals for 50cm-square shovel tests along a new proposed walkway to the park on the east side of the cemetery, and along a wooded strip of land bordering the northern boundary of the cemetery, in order to establish stratigraphy for the site, with a total of 15 shovel tests excavated. In addition, machine-assisted stripping of topsoil was conducted in wide trenches along both boundaries of the cemetery and throughout the proposed park to the south of an existing parking lot and at the northern end of the lot in an area measuring approximately one-half acre. The survey revealed no burial contexts within the subsoil or substratum exposed beneath the topsoil or fill areas across the site. Two late 19th to early 20th century structural areas were identified, including one to the east of the cemetery and likely centrally located beneath a pollination garden to the south of the proposed walkway, where a deeply modified topsoil and possible fence post mold feature were recorded; and just north of the cemetery where a foundation with concrete slab and brick chimney remains are present in addition to an isolated dumped cluster of debris. Both areas contained an abundance of coal, but otherwise low density of structural and household artifacts. Of 258 artifacts collected from 15 shovel tests and the dumped cluster, nearly half were coal representing a common fuel source for the time, with other materials including red brick, cut and wire nails, window glass, ironstone china and other late historic ceramics, and several personal items including a heavily oxidized button back, clay pigeon fragments, and tin can fragment. The two structural areas appear on historic maps as early as 1870, and relate to St. Mark's School, with the eastern structure possibly having housed the first steward of the school.

Management Summary

ACS conducted an intensive (locational) archaeological survey at a triangular property bound by St. Mark's Street at the northwest, Marlboro Road (Route 85) on the east, and by the Old Burial Ground to the south in Southborough, Massachusetts. St. Mark's School proposes to create a history walk park and walkway at the property which measures 1.7 acres. The property contains the Old Burial Ground (SBR.801), within the Southborough Town Center (SBR.AG), and is part of the Southborough Center Historic District (SBR.AI) that is listed with the National Register of Historic Places. The project is subject to review based on the historic status of the property by the Massachusetts Historical Commission, as provided in M.G.L. Chapter 9, sections 26-27C (950 CMR 70 and 950 CMR 71). The burial ground has a formal establishment date and stone wall enclosure dating to 1727, although historic references indicate that a number of Nipmuc burials could have been located near the northeast corner of the cemetery. Systematic testing was conducted in 5-meter intervals for 50cm-square shovel tests along a new proposed walkway to the park on the east side of the cemetery, and along a wooded strip of land bordering the northern boundary of the cemetery, in order to establish stratigraphy for the site, with a total of 15 shovel tests excavated. In addition, machine-assisted stripping of topsoil was conducted in wide trenches along both boundaries of the cemetery and throughout the proposed park to the south of an existing parking lot and at the northern end of the lot in an area measuring approximately one-half acre. The survey revealed no burial contexts within the subsoil or substratum exposed beneath the topsoil or fill areas across the site. Two late 19th to early 20th century structural areas were identified, including one to the east of the cemetery and likely centrally located beneath a pollination garden to the south of the proposed walkway, where a deeply modified topsoil and possible fence post mold feature were recorded; and just north of the cemetery where a foundation with concrete slab and brick chimney remains are present in addition to an isolated dumped cluster of debris. Both areas contained an abundance of coal, but otherwise low density of structural and household artifacts. Of 258 artifacts collected from 15 shovel tests and the dumped cluster, nearly half were coal representing a common fuel source for the time, with other materials including red brick, cut and wire nails, window glass, ironstone china and other late historic ceramics, and several personal items including a heavily oxidized button back, clay pigeon fragments, and tin can fragment. The two structural areas appear on historic maps as early as 1870, and relate to St. Mark's School, with the eastern structure possibly having housed the first steward of the school. ACS recommends no further archaeological conservation efforts for the specific project, although if future projects call for direct impact to the areas immediately adjacent to the eastern or northern cemetery walls, further archaeological construction monitoring or excavations may be warranted as determined by consultation with the Massachusetts Historical Commission (MHC).

I. GENERAL INFORMATION

This report provides the results of an intensive (locational) archaeological survey for a planned History Walk Park and associated walkway at St. Mark's School in Southborough, Worcester County, Massachusetts **(Figure 1)**. The project area is roughly one-half acre in size, located in central Southborough to the south and east of St. Marks Street and west of Marlboro Road (Route 85). The property is also bordered by the formal boundaries of a historic cemetery to the south **(Figure 2).** Site plans for the project indicate that St. Marks Street will be rerouted south of its current location where it intersects Marlboro Road, to more tightly encompass the proposed park, with the small area north developed into a larger parking area. The History Walk Park will include paved and grass lawn sections, curbing, and walkway connected to a town walkway to the south of the park by less than 100 meters in length **(Figure 3).**

In 2021, the Massachusetts Historical Commission (MHC) conducted a preliminary review of the project and site walk, noting:

"...The MHC notes that the project appears to include relocation of St. Mark's Street, construction of a parking lot and a proposed recreational park within the triangular property north of the Old Burial Ground and Southborough Library within the Southborough Town Center. The MHC notes that the project is being conducted by the Town of Southborough Department of Public Works and is currently in construction. The MHC wishes to prove the SHC technical assistance in archaeology and historic preservation to assist the SHC in consultation with other Town boards and departments and offers the following comments. The Old Burial Ground (MHC #SBR.801) within the Southborough Town Center (SBR.AG) is recorded in the MHC's Inventory of Historic and Archaeological Resources of the Commonwealth.

The MHC Inventory form for the Old Burial Ground includes general historical anecdotal information suggesting that other unmarked burials pre-dating the 1730s bounding of the Old Burial Ground may be present within and/or adjacent to the existing marked burial ground boundaries. No ancient or early historical period archaeological artifacts, features, or soil deposits were observed by MHC staff during the site visit within a limited observable portion of the active project impact area. Nevertheless, undisturbed portions of the project impact area may be archaeologically sensitive, and could contain archaeological resources associated with ancient Native American and historical period occupation of the Town Center.

Unmarked human burials may also be present. Unmarked burials are protected by several Massachusetts laws. In cases where there is likelihood, as with the present project, to intercept human remains, including unmarked graves, during construction MHC advises a proactive approach; to prevent avoidable and inadvertent impacts and to address the consequent complications of a discovery after construction has commenced. If human remains, including bones and/or features are identified during project construction, then construction should be halted, the location(s) protected, and the Massachusetts Unmarked Burial law protocols (see attached Know How #4) should be promptly implemented.

The subsurface boundaries of the Old Burial Ground have not been defined through professional archaeological survey and may extend beyond the existing masonry walls. The MHC recommends that an intensive (locational) archaeological survey, including a program of systematic soil stripping monitored by a professional archaeologist (950 CMR 70), be conducted within the maximum required project impact area, to identify and evaluate archaeological sensitive project impact areas, including areas expected to contain unmarked burials and/or buried burial ground features.

The survey would be conducted by a professional archaeological consultant with experience in the identification and evaluation of historical period burials under a State Archaeologist's Permit (950 CMR 70). The results of the survey would provide definitive information to assist in consultation to avoid or mitigate adverse effects to significant archaeological resources and burials and/or buried cemetery features associated with the Old Burial Ground and/or other currently unmarked burials.

A written cemetery avoidance and protection plan could also be developed and implemented if necessary as construction proceeds, to avoid and protect the Old Burial Ground archaeological site boundaries. Any plan must be developed consistent with the Massachusetts Unmarked Burial Law (M.G.L.C. 7, s. 38A, C. 38, s. 6, C.9, ss. 26A & 27C and C. 114, s. 17, all as amended) to avoid adverse effects to the burial ground during project construction.

These comments are offered to assist in compliance with M.G.L. Chapter 9, Sections 26-27C (950 CMR 70-71), M.G.L. Chapter 114, Section 17, M.G.L. Chapter 272, Section 73, and the Massachusetts Unmarked Burial Law (Massachusetts General Laws, Chapter 38, Section 6; Chapter 8, Section 26A and 27C; and, Chapter 7, Section 38A; all as amended)..."

Prior disturbances of the project area include some tree clearing within the history walk park area, and the former construction of a parking lot to the north where new parking will be developed **(Figures 4 and 5),** although any deeply buried burial features would likely remain intact. As a result, ACS conducted preliminary shovel tests in 5m intervals along the proposed walkway just east of the current cemetery boundaries, and another array of 5m interval tests along the northern boundary of the cemetery to document stratigraphic conditions of the project area. In order to more thoroughly evaluate the potential presence of burial remains, ACS subsequently monitored the stripping of topsoil across approximately one-half acre that includes the History Walk Park portion of the project area and along the proposed portion of the path that would meet the town path to the south, in an area bound by the current cemetery wall and associated tree line to the south that will remain undisturbed, St. Marks Street to the west, Marlboro Road to the east, and the proposed new route of St. Marks Street to the north - not including the current proposed and new parking area that is disturbed and lies furthest from the historic cemetery.

An archaeological survey permit was secured from the Massachusetts Historical Commission (MHC) according to Massachusetts General Laws Chapter 9 Sections 26-27C (950 CMR 70). The survey was performed in compliance with guidelines issued by MHC for conducting cultural resource management surveys in Massachusetts, under State Archaeological Permit number 4201.

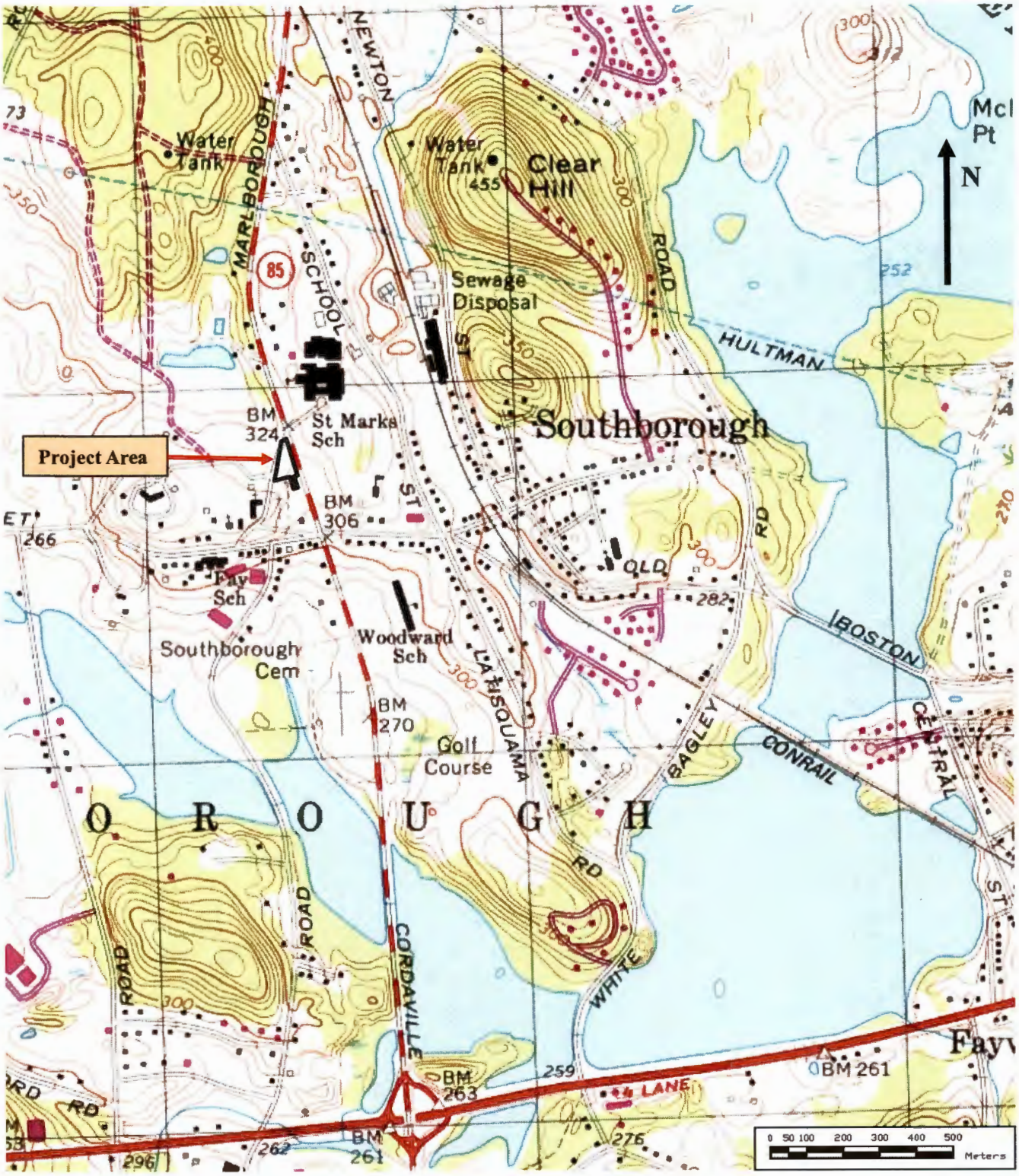

Figure 1. Location of the project area on a USGS Topo Map, Marlborough Quadrangle.

Figure 2. Aerial View of the Project Area.

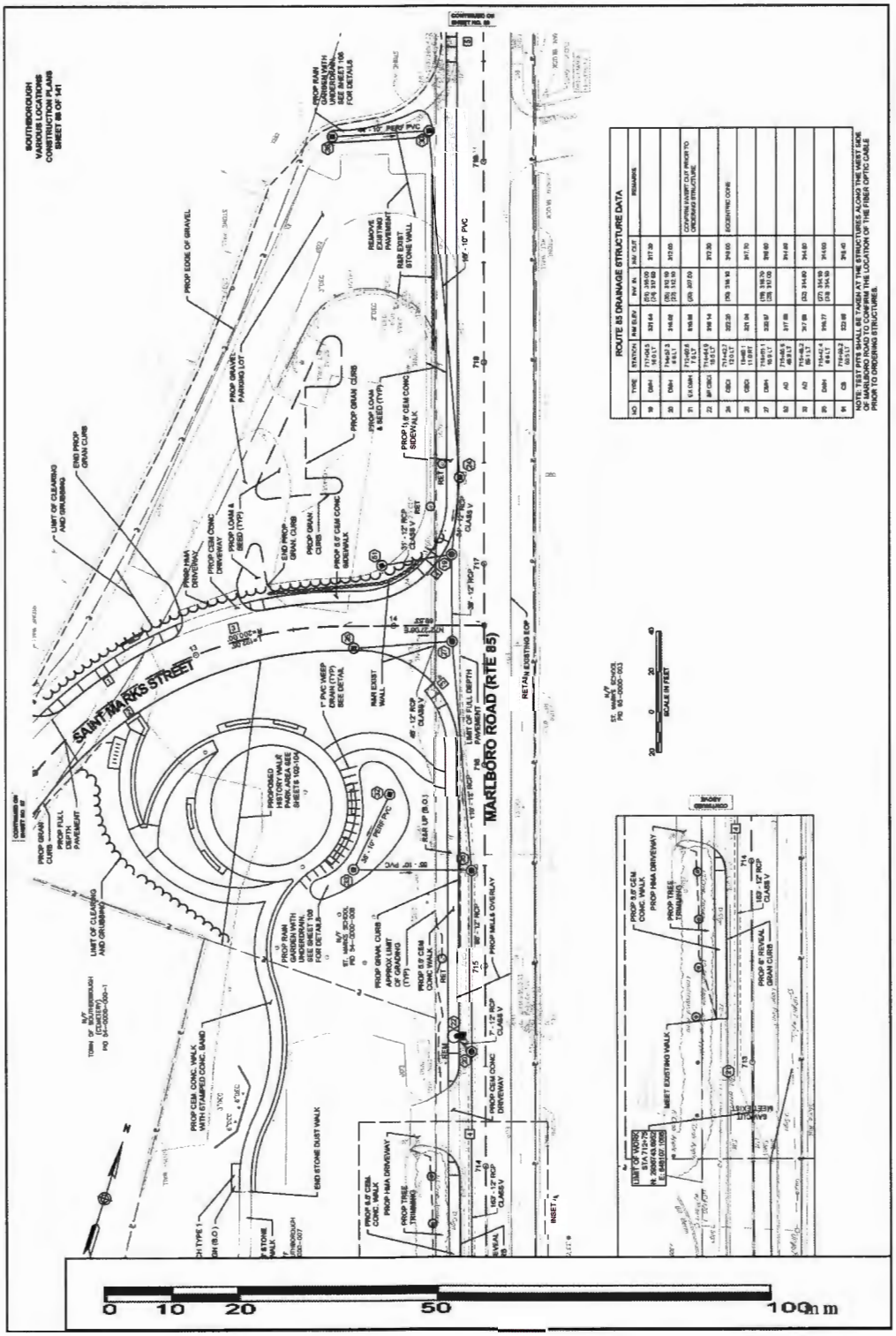

Figure 3. Site Plan. Scale 1 mm = 1 m (1:1,000).

Figure 4. Project Area – West View. Photograph showing cleared vegetation, cemetery, and wooded tree line behind snow fence on left.

Figure 5. Project Area – East View. From 2017 before clearing, northern stone wall of cemetery at right.

II. ENVIRONMENTAL CONTEXT

The Town of Southborough is located in Worcester County, in the Northeast Coastal Plain ecoregion of Massachusetts. It has an undulating surface topography with several hills (Wolf Pen, Breakneck, Pine, Oak, Clean, and Mount Victory), four brooks (Angle, Deerfoot, Pancake, and Stony) and one river (Sudbury). The elevation ranges from 260 feet in the south to 470 feet in the northern portion of the town. The town lies within the Sudbury River drainage, which forms the southern border of the town, separating it from Hopkinton. The town is bounded by Marlborough to the north, Westborough and Northborough to the west, and Framingham to the east. Stony Brook has its source in the western part of Southborough and meanders east through the central portion, eventually falling into the Sudbury River in Framingham. This brook became the Wachusett aqueduct in 1898. Angle Brook is a tributary of the Sudbury River, but was flooded when the Sudbury Reservoir was created between 1894 and 1898. The soils are generally deep, gravelly loams that are somewhat rocky, especially in the southern part. The western part of the town was reported to have numerous springs with large quantities of iron (Newton 1879:286).

The project area lies just north of the geographic center and within the political center of the town, which is a flat landscape between several small hills with a gradient rising south to north. Including the historic cemetery, the overall property is a 1.7 acre roughly triangular piece of land bounded on the west by St. Mark's Street, on the east by Marlboro Road and on the south by Main Street at an elevation of approximately 310 to 320 feet above mean sea level. The dominant soil types for the project area, according to the USDA Natural Resources Conservation Service web soil survey, include a Paxton fine sandy loam (305B 3-8% slopes) in the northern and western portions and Canton fine sandy loam (420B 3-8% slopes) in the southeastern. Both soil types are well-drained and very deep to bedrock, being located on ground moraines, hills, drumlins and ridges. Canton soils have a typical profile consisting of 13 cm of a very dark grayish brown (10YR3/2) fine sandy loam A horizon followed by 38 cm of yellow brown (10YR5/4 to 5/6) fine sandy loam B1 horizon. The B1 horizon overlies approximately 15 cm of yellow brown (10YR5/4) gravelly fine sandy loam B2 horizon, which in turn overlies a grayish brown (2.5Y5/2) gravelly sandy loam C1 horizon to a depth of at least 170 cm. The typical profile of Paxton soils consists of 20 cm of a dark brown (10YR3/3) fine sandy loam A horizon, followed by 18 cm of dark yellow brown (10YR4/4) fine sandy loam B1 horizon. The B1 horizon overlies approximately 28 cm of olive brown (2.5Y/4) fine sandy loam B2 horizon, which in turn overlies an olive (5Y5/3) gravelly fine sandy loam C1 horizon to a depth of at least 165 cm.

The property is just over one and one-half kilometer west of the Sudbury Reservoir, three-quarters of a kilometer north of the Wachusett aqueduct, and one-half kilometer south of an unnamed pond. The first two are part of the larger Sudbury River drainage basin. The area just south of the project area is known to have been used as a historic burial ground, and the project area could have been potentially attractive to Pre-Contact Native people for use and settlement. The northern portion of the cemetery was also reportedly the location of a Native Nipmuc burial ground prior to its colonial use.

III. PREHISTORIC CONTEXT

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

The prehistory of southern New England is divided into seven periods, each identified by characteristic projectile points, pottery, and other artifacts. These periods are the Paleo Indian (13,000-9,500 BP), Early Archaic (9,500-8,000 BP), Middle Archaic (8,000-6,000 BP), Late Archaic (6,000-3,000 BP), Early Woodland (3,000-2,000 BP), Middle Woodland (2,000-1,000 BP), and Late Woodland (1,000-350 BP) periods. These cultural periods also are distinguishable on the basis of changing patterns of site location, activities, and size.

Paleo-Indian Period 13,000-9,500 BP

Sites of the Paleo-Indian and Early Archaic periods are most frequently located across and around drained lake beds that formed at the end of the Pleistocene (Ice Age). These sites are generally small, and often represent single episodes or short events involving hunting and gathering, or natural resource processing. Few sites, other than isolated find spots, have been reported from the greater Boston area (MHC 1982: 16). While no Paleoindian sites have been recorded in Southborough, some isolated find spots are reported for the general region. These sites are located within the Assabet and Sudbury drainages in Concord (19-MD-94), Wayland (Heard Pond), and Northboro (find spot, MHC site files).

Early Archaic 9,500-8,000 BP

The Early Archaic represents a period where many of Massachusetts' larger drainages hosted complex, multi-site settlement systems, with a variety of sites in different environmental settings (Ritchie 2009: 34). The Early Archaic period is almost as sparsely represented as the Paleoindian period. Early Archaic Bifurcate Base points have been recovered from sites located within the Assabet and Sudbury drainages. Some of these sites include: along the Assabet - the Bornbard Site; and along the Sudbury - Heard Pond, Davis Farm, and Hocomonco Pond in Westboro, and at Morse Farm. During this period, there appears to be a variation in site selection as reflected by the locations of find spots, utilizing not only the wetland/riverine ecozones, but also places outside the riverine zone in upland areas (Morse Farm). This may suggest a settlement and resource-procurement system focusing on seasonally abundant resources (MHC 1980).

Middle Archaic 8,000-6,000 BP

Sites of the Middle and Late Archaic periods tend to appear at the edges of upland wetlands, ponds, and streams, and on the banks of rivers, with a particular focus on river meadows and adjacent wooded wetlands. The upland interior sites tend to be small and represent episodes of special activities, with larger, repeatedly used sites appearing next to large wetlands and at fords or rapids in rivers. The

Middle Archaic saw the first quarrying of raw materials from the Blue Hills and Lynn Volcanic outcrops (MHC 1982: 16). Middle Archaic sites are slightly more abundant than those of the previous periods discussed. Neville and Stark points attributed to the Middle Archaic have been recovered from sites within the Cedar Swamp Archaeological District, within the Sudbury drainage, at Hocomonco Pond, and Charlestown Meadows within the Assabet drainage. These drainages appear to be the major focus of activity during this period. Sites are located within a variety of riverine and upland settings, ranging from small, single-component sites in the uplands to large multi-component sites in the riverine zones. Local raw materials were procured from the Westboro Formation found in the upland outcrops of the Sudbury/Assabet drainage.

Late Archaic 6,000-3000 BP

Unlike the preceding periods, the Late Archaic period is well represented in the greater Boston area and East Central Massachusetts. Small Stemmed tradition sites are better represented in general, although less common than in southeastern Massachusetts, but they do occur in a wide variety of environmental settings (MHC 1982: 17). The Susquehanna Tradition of the Late Archaic period is well represented on the coast and on the banks of the Charles River, and the Orient Tradition is known from sites on the Mystic and Charles river drainages (MHC 1982: 18). Settlement during this period appears to have been focused on particular territories. The Late Archaic contains the greatest frequency of sites, with the widest distribution of sites found in different environmental zones thus far discussed. A number of Late Archaic sites have been identified within the Sudbury and Assabet drainages. An important cluster of sites has been identified within the upland pond (Hocomonco Pond) and wetland (Cedar Swamp and Cold Brook) ecozones. Other sites have been identified in upland areas (Flagg Swamp Rock Shelter) and riverine areas (Robin Hill, Davis Pond).

Early Woodland 3000-2000 BP

Early Woodland period sites rarely appear in the interior Boston area drainages, possibly representing a movement to the coast by populations at this time (Ritchie 2009: 37). The sparse evidence that has been uncovered to date points to the continued use of base camps and upland sites. Regionally, the Early Woodland is well represented within the Cedar Swamp District in Westborough. The large multi-component sites were characterized by large communal facilities (Hoffman 1992). There was a strong tendency toward the use of local quartz, quartzite, and Milford granite.

Middle Woodland 2000-1000 BP

Middle Woodland period components tend to occur only in multi-component sites. The exploitation of quarry locations within the Blue Hills and Lynn Volcanic series continues. The Middle Woodland period is marked by a decrease in the number of exotic finished goods indicative of long-distance trade, and by changes in mortuary practices (e.g. increase in secondary interments, less use of ocher, fewer grave goods, more variation in preparation of the dead). While the roots of ceramic and lithic variability are found in the preceding periods, the Middle Woodland period is characterized by more rapid variation in artifact sequencing through time and with more regional variation. Ceramics vary more in decoration and form, for instance. Lithic projectile points are less important in the tool kit, and bone and antler tools are preserved at some sites where matrix conditions are appropriate (Shaw 1996:84-87). By the end of the period, there is evidence of maize horticulture (Thorbahn 1982). Evidence of intensive long-distance interaction can be seen in the increase in jasper recovered at Cedar Swamp in Westborough and the recovery of Westboro quartzite from sites located within the Boston

Basin. A Middle-to-Late Woodland site found in Ashland in close proximity to the project area was the Blueberry Hill Site (19-MD-639), which has been identified as small temporary campsite from which four black rhyolite flakes, two white quartz flakes, and two hornfels flakes were recovered.

Late Woodland Period 1000-350 BP

Late Woodland period sites tend to occur in virtually every habitat, although Late Woodland settlements appear to show more constriction to territorial spaces on specific river drainages and with an increased use of local lithics (Ritchie 2009: 38). The Late Woodland generally shows an increase in the density of sites and the use of coastal locations (MHC 1982: 20). During this period, the Neponset (at the south edge of Massachusetts Bay) and the Mystic (at the north end) drainages appear to have been important regional focus areas, with summer occupation occurring at the eastern / coastal reaches and winter occupation occurring at the western ends (MHC 1982 29). The Charles River appears to have served as an important boundary between the two areas (MHC 1982: 29). The Late Woodland is also represented within the Cedar Swamp District. Several other Late Woodland sites in the region have been identified within the Assabet and Sudbury drainages (Flagg Swamp Rock Shelter, Heard Pond, and War Hill No. 2).

A. Known Prehistoric Sites

There are no prehistoric sites recorded in the files of the MHC within two kilometers of the proposed project area.

B. Prehistoric Archaeological Potential

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

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

Pre-contact Archaeological potential can be stratified as follows:

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

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

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

The project area is in a nearly level to gently sloping setting on deep, well drained soils, which would have been conductive to prehistoric Native American use and settlement, although about one-half kilometer from the nearest minor water source, and well over a kilometer to the nearest substantial water source. The distance to substantial bodies of water would have greatly limited the intensive use of the project area, although these types of settings were conducive to short term occupations and task-specific resource extraction. Based on the pre-contact archaeological potential model described above, but also reports of potential Nipmuc burial activity, the project area is designated as having a low to moderate sensitivity for potential prehistoric cultural resources.

The small to medium sized sites of the area are expected to relate to resource procurement activity and the harvesting of faunal resources such as deer, fish, and small mammals, or the collection of floral resources such as medicinal plants, or other raw materials. Any occupation evidence is expected to take the form of hearths and activity areas related to all phases of lithic reduction, as well as possibly food processing and other domestic activities. If Native American burials are present, soil stripping should reveal grave shaft features in subsoil contexts.
Larger sites of the broader area may yield evidence of multiple hearths, features related to house construction such as post molds, and storage and refuse pits. A wide range of activities may be expected to be evidenced at sites such as these. Artifacts expected at such sites may include pottery, steatite, a wide range of lithic tools, and evidence of lithic reduction. Faunal and floral remains may be recovered. Fewer large sites, however, are expected to be encountered in the project area or similar settings at considerable distances to larger bodies of water. If a larger site was present, it is expected that it would cover a greater area and be more visible archaeologically than the smaller sites.

IV. Historic Context

A. Historic Background of the Southborough Area

Research was conducted at the Southborough Public Library, the Southborough Historical Society, the MHC, and an extensive online search was made. Southborough was not incorporated until 1727, before which it was a part of Marlborough called Stoney Brook.

While very little evidence of prehistoric occupation has been found in the town, even less is known regarding what the Native population was doing during the **Contact Period (1500-1620)**. It is believed that the land was within the territory of the Nipmuc, and that travel though the area was along the route of what later became Main Street and Oregon-Woodland-Gilmore streets (MHC 1983:2). There are no known Contact period sites, but they are predicted to have been located on the knolls and hills adjacent to the former drainage of Stony Brook which bisected the town (and exists today as the Aqueduct) and along the Sudbury River to the south. A Nipmuc Native burial ground is believed to have been located at the north and east end of the burial ground where a heavy thicket that had sheltered the burial ground was cut down when the first stonewall was built in 1727-28 (Forbes / Schuler 2000:4).

The **First Settlement Period (1620-1675)** saw the Native trails being used as roads by Europeans who began to use what would become the area north of Stony Brook / Southborough as grazing lands (MHC 1983:2). No colonial occupation occurred at this time.

European settlement began in Southborough during the **Colonial Period (1676-1776)**, especially after 1727 when 40 men signed a petition to incorporate it as a town (MHC 1983:3). Three years later, 17 men formed as a group to gather a church, and while there was an initial dispute as to where to locate the meetinghouse, it was eventually settled to place it at roughly the geographic center of the town. The first meetinghouse measured 50 x 40 feet with 20-foot posts, being located a few feet south of the Pilgrim Evangelical Society house (Newton 1879:289). Nathan Stone was the town's first minister and served in that position until 1781 (Whitney 1793:131; Newton 1879:290). The first town meeting was held on August 28, 1727 at the house of Timothy Brigham, which is now the location of the St. Mark's school house (Newton 1879: 289). The burial ground, training green, schoolhouse (1730), town pound, and workhouse were eventually all located on adjacent parcels, making this the municipal center of the town as well (MHC 1983:3). This land was given to the town by the Town of Marlborough before incorporation specifically for this purpose (Newton 1879:290). The principal economy in the town was farming at dispersed homesteads, with the pasturage of sheep, goats, and cattle on the two largest meadows in the town also being important. Orchard products were also grown, principally apples, as well as grains. By the end of the period, the town had a population of 735 individuals and boasted eight mills (including two sawmills and two grist mills), eight shops, two tanneries, and two potash works (MHC 1983:3).

The **Federal Period (1775-1830)** saw Main Street as the principal east to west road, and by 1810, witnessed the completion of the Boston/Worcester turnpike completed as far as the meetinghouse center (MHC 1983:3). The population increased to 1,080 by the end of the period, with the greatest period of growth being between 1810 to 1820. With the increased population came the establishment of a Baptist church in 1827, a Pilgrim Evangelical Society (1830), a lyceum (for debates and lectures) in 1824, and a second population concentration at the turnpike intersection at Fayville, where two stores and a tavern complemented the same at the town center (MHC 1983: 4). Settlement also became more concentrated along Main Street as the area continued to develop as the institutional center of the town. The town was described as full of good and wealthy farmers in 1793, with 120 dwellings, 150 families, and 840 inhabitants (Whitney 1793:131). A total of 219 men from Southborough served in the American Revolution, with 17 dying (Newton 1879:294).

The economy continued to be mainly based on agriculture, but industries that have come to characterize this period in Massachusetts - shoe, boot, and bonnet manufacture - began as cottage industries, along with palm-leaf hat manufacture (MHC 1983:4). Over 200 of the inhabitants of the town were involved with these industries, with the majority (n=150) manufacturing shoes and boots, and producing over $150,000.00 worth of Brogans to be exported to the west and southern slave states (MHC 1983:4). Other industries included small clothier's works on one of the town's brooks, a carriage maker, small shoe peg manufacture, a tanner, a currier, two saw mills, a grist mill, and a triphammer works on the Sudbury River (Whitney 1793:133). A new meetinghouse was also built in 1806.

Southborough saw a period of economic boom during the **Early Industrial Period (1830-1870)** with the addition of two new north to south connectors from the center to the industrial villages of Southville and Coradville on the Sudbury River to the south of the town center. The industrial development was largely influenced by the market in Boston, which became easily, and daily, accessible with the establishment of the Boston and Worcester Railroad at the start of the period in 1835, with branches running to the north later in the period (MHC 1983: 5). The arrival of the railroad and its resulting encouragement of industrial development led to an increase in the population by people seeking new and numerous jobs associated with burgeoning industry. As a result, the population of the town doubled from 1,080 to 2,135 during this period, with the greatest increase in the 1850s, and 16% being foreign born by 1865 (MHC 1983:5). The increased population led to new religious and social groups such as the Pilgrim Evangelical church in 1832, a second lyceum in 1842, a public library in 1852, and the Episcopal Church in 1863.

Industrial development, which was described later in the century as causing the town to "take on a new life" resulted in the creation of industrial villages at Southville and Cordaville after 1854 and Fayville after 1860, with concomitant residential development along Parkerville and Southville roads consisting of worker housing and stores (MHC 1983:5; Newton 1879:287). Southville was established as a boot and shoe manufacture center by the John Knott Company and Newton and Karatt, the later of which had a retail footwear store in Boston (MHC 1983:6). It also had a cotton and wool factory that made kersey, mostly to be sold for southern slave clothing. Cordaville was established in 1847 for the manufacture of cotton and woolen goods in 1847. It was incorporated as the Cordaville Manufacturing Company in 1849 (MHC 1983:6). Fayville was named after the Fay family, who established a store that expanded into a larger business. Dexter Fay started out as a butcher who built a 14-foot square store, expanding it as trade increased, until it became a famous place for trade with yearly sales of over $125,000.00 (Newton 1879:188). Sullivan Fay was an early board member on the Agricultural Branch Railroad, serving as a secretary and treasurer, which may have helped get the railroad to pass through Fayville in 1855 (MHC 1983:6). In 1872, Curtis Newton purchased the estate of Dexter Fay and erected a shoe factory. One of the first brush manufacturers of New England, Whiting Patent Brushes, was established in Fayville in 1841 (MHC 1983: 6). This company later moved to Boston in 1864. A brickyard was located on the outskirts of the village in 1860 by Mr. Kidder. After his death, brick manufacturing continued under Bull and Holman, and was succeeded by the Framingham Brick Company which manufactured 1.5 million bricks per year (Newton 1879:288).

By the 1860s, over 150 people were involved in shoe and boot manufacture in the town (with production values of over $200.000.00), although agriculture was still important, especially apple orchards and dairying. The town also produced butter, veal, and beef (Newton 1879:286). By 1865, the town had over 200,000 apple trees, and 149,590 gallons of milk were being shipped to Boston on the railroad (MHC 1983:6). Deerfoot Farms was established by Joseph Burnett in 1847, becoming one of the largest farms in Massachusetts and famous for its scientific farming interests and cattle improvements on their Jersey dairy herds (imported in 1854) (MHC 1983:6).

The town center saw significant institutional development during this period, with the first town house being built in 1840 and a remodeled meetinghouse in 1856. Two preparatory schools were also erected in the town center as well. Joseph Burnett founded the St. Mark's Episcopal Preparatory School in 1865, and he also funded the Gothic Revival style St. Mark's Episcopal Church the previous year

(MHC 1983:7). The Fay school, founded by Eliza Fay and Harriett Burnett, was founded in 1866, claiming the distinction of being the oldest private school in the country (MHC 1983:7). A monument to the those who died during the Revolutionary War was dedicated in 1867. A second community cluster also began developing around the railroad depot to the east of the center.

Population declined slightly in the **Late Industrial Period (1870-1915)**, peaking at 2,223 in 1895, with almost 20% being foreign born Irish, Canadians, Italians, and Nova Scotians (MHC 1983:7). The influx of Catholics to the town led to the creation of religious institutions to serve them, such as St. Matthew's Catholic Church, located between Cordaville and Southville in 1879, and St. Anne's Catholic Church between Fayville and the town center (1883).

The town infrastructure was improved by the turn of the century, with two streetcar lines being constructed in the northern part of the town linking Southborough and Marlborough's centers. A new roadbed, consisting of a raised roadbed with cut stone overpass supports, was also constructed for the Boston to Worcester railway line where it entered the town from Westborough (MHC 1983:7). These roadway changes helped to expand the central village and establish a high-income corridor east of the institutional center, with the creation of the Southborough Golf Course and Marlborough Park Race Track in the 1890s (MHC 1983:8).

The growth of the town center was mirrored by a growth in the agricultural and manufacturing sectors of the town, preceding a sharp decline in manufacturing by the new century. By the 1890s, 100 people were employed in shoe and boot manufacture, but by 1900 the boot and shoe factory and textile mill in Southville was closed (MHC 1983:8). Fayville boasted a large shoe factory at the start of the period, employing 300 people in 1888, and being one of the only areas of town where boot and shoe manufacture continued into the next century. A brickworks under the name of Framingham Brick Company manufactured 1.5 million bricks per year until it closed just before 1900 (MHC 1983:8). The Cordaville woolen Company was incorporated in 1876 and employed over 100 people, producing wool blankets (MHC 1983:8). In the year 1885, there were 27 manufacturing firms recorded in the town, with the majority being boot and shoe works, but 17 different industries were present, employing 385 people (MHC 1983:8). By 1905, only three industries remained - three boot and shoe companies, a plaster works, and a wool mill (MHC 1983:8). Dairying did not suffer the same fate as the manufacturing industry, with Deerfoot Farms being the leading establishment in the town and the second in the county in the production of milk products, at 653,049 gallons per year, or 1,200 gallons daily (MHC 1983:8; Newton 1879:286). Deerfoot Farms also produced "Excelsior" butter using the most scientific principles, and from pure Jersey cows (Newton 1879:186). Other cash crops in the town were cabbage, onions, apples, and pears. The town was described as containing 179 "superior farms" measuring from 10 to 200 acres in size (Newton 1879:286).

The **Early Modern Period (1915-1940)** saw the streetcar routes abandoned and local roads improved as auto highways by the 1930s. As manufacturing continued to shrink, the population of the town increased to 2,231 by 1940. This was likely the result of the towns increased position as a residential area for larger nearby cities (MHC 1983:9). By the 1920s, the town ceased being a location of shoe and boot manufacture, and the wool mill in Cordaville was closed by 1928 (MHC 1983:9). Agricultural activities dominated the economy of the town, led by Deerfoot Farms which employed 125 people in 1930 (MHC 1983:10).

B. Project Area Background History

The Southborough Old Burial Ground is part of the institutional focus at the center of the town on the north side of Main Street that included the 1870 Town House, the 1806 second meeting house (Pilgrim Church), the relocated Flagg School, the 1912 Fay Library, the Town Common, the 1867 Soldiers Monument, and other war memorials. The burial ground occupies a parcel of land that is essentially a triangle, with grave markers in north to south rows facing west towards the meeting house. The burial ground is ringed with a flat-topped dry-laid fieldstone wall approximately one meter high, with some cut granite at the south end. As the town report is full of many references to line items for the rebuilding of the wall, the appearance today is largely a result of late nineteenth century efforts (Forbes / Schuler 2000: 3). There is no formal landscaping within the bounds of the burial ground, but several mature fir trees are present in the northern section, with larches, spruces, arborvitae, and deciduous trees scattered across the lot.

It is believed that a Nipmuc Native burial ground was located at the north and east end of the burial ground, being referenced in the town records when the wall was built there in 1727-28 and the heavy thicket located there identified as sheltering the Nipmuc graves was removed (Forbes/ Schuler 2000: 4). There may have also been a few early colonial interments prior to the official establishment as a burial ground, with one early one being Margaret Newton in July of 1728 (Forbes / Schuler 2000: 4). The earliest standing gravestones are located at the southwest corner of the present burial ground, with the remainder of the south end of the burial ground being open, presumably with many unmarked graves. The town set the bounds between the burial ground and the training field in 1741, and the burial ground was enlarged by two times in 1750 by the incorporation of a former two-rod way along the east side. A later addition was made of a 125-foot-wide strip on the west side (Forbes / Schuler 2000: 5). The town voted in the 1840s to build a new, landscaped cemetery just south of the cluster of buildings at town center. In 1843, the Old Burial Ground was closed after Southborough's Rural Cemetery opened in 1842 (Forbes / Schuler 2000: 5).

Other constructions were also located either within or close by the burial ground **(Figures 6 – 10).** These include the first and second town pounds in the southern part of the lot. The first pound was surrounded by a wooden fence while the second, which was later relocated to the northwest of the meeting house, was dry-laid stone. Other structures include a pre-1735 noon house used on the Sabbath; the first schoolhouse (1734-35); a small brick powder house (1735); a succession of horse sheds; and an early nineteenth century hearse house (Forbes / Schuler 2000:5). Maps do not show any structures within the project area until 1870, appearing to relate to St. Mark's School **(see Figure 9).**

C. Known Historic Archaeological Sites

Only two historic archaeological sites are located within two kilometers of the project area (Table 1). Both are middle to late nineteenth century dry-laid stone constructions identified during a 1995 reconnaissance survey on the east side of the Sudbury Reservoir.

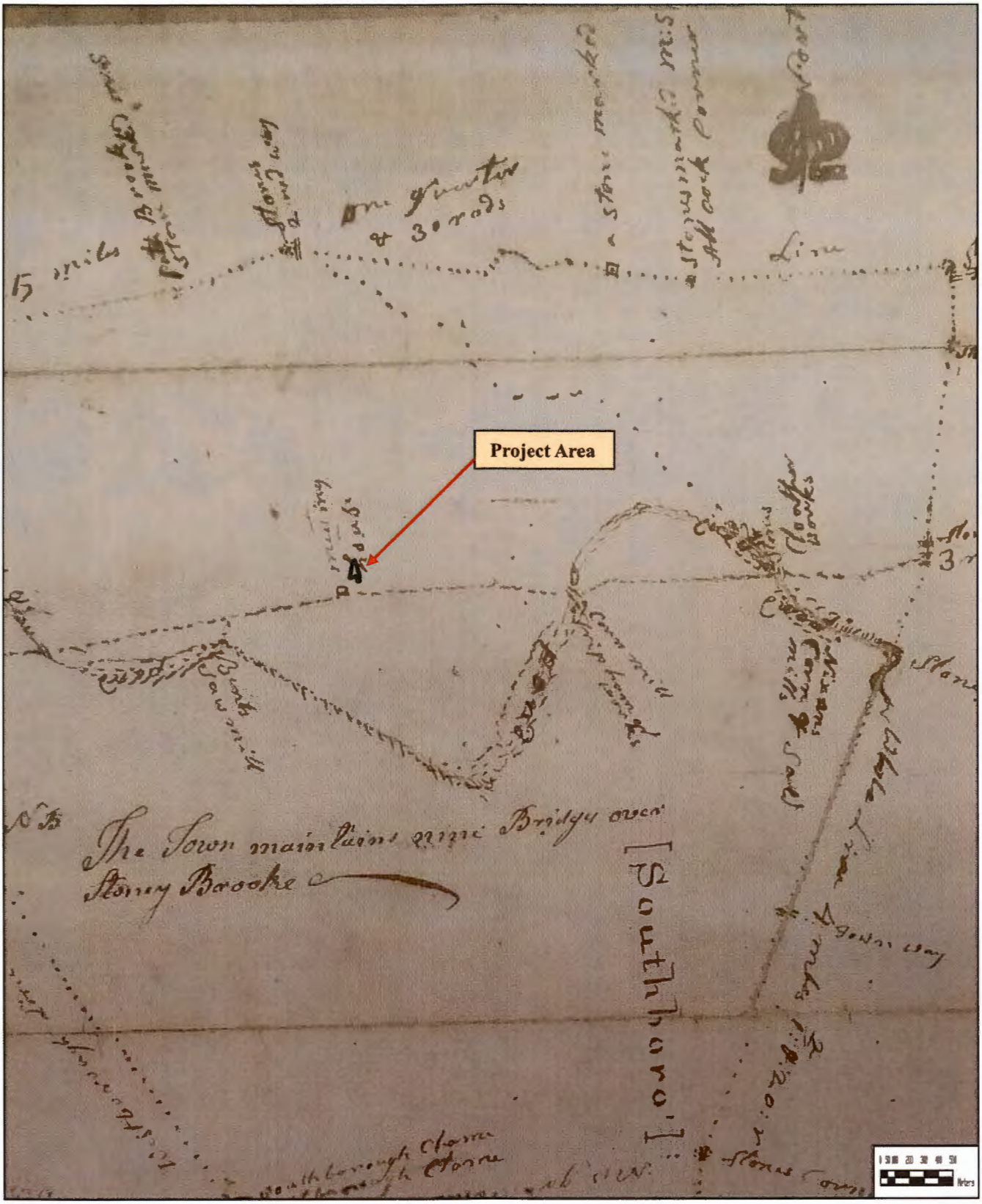

Figure 6. Project location on map section from Anonymous 1795.

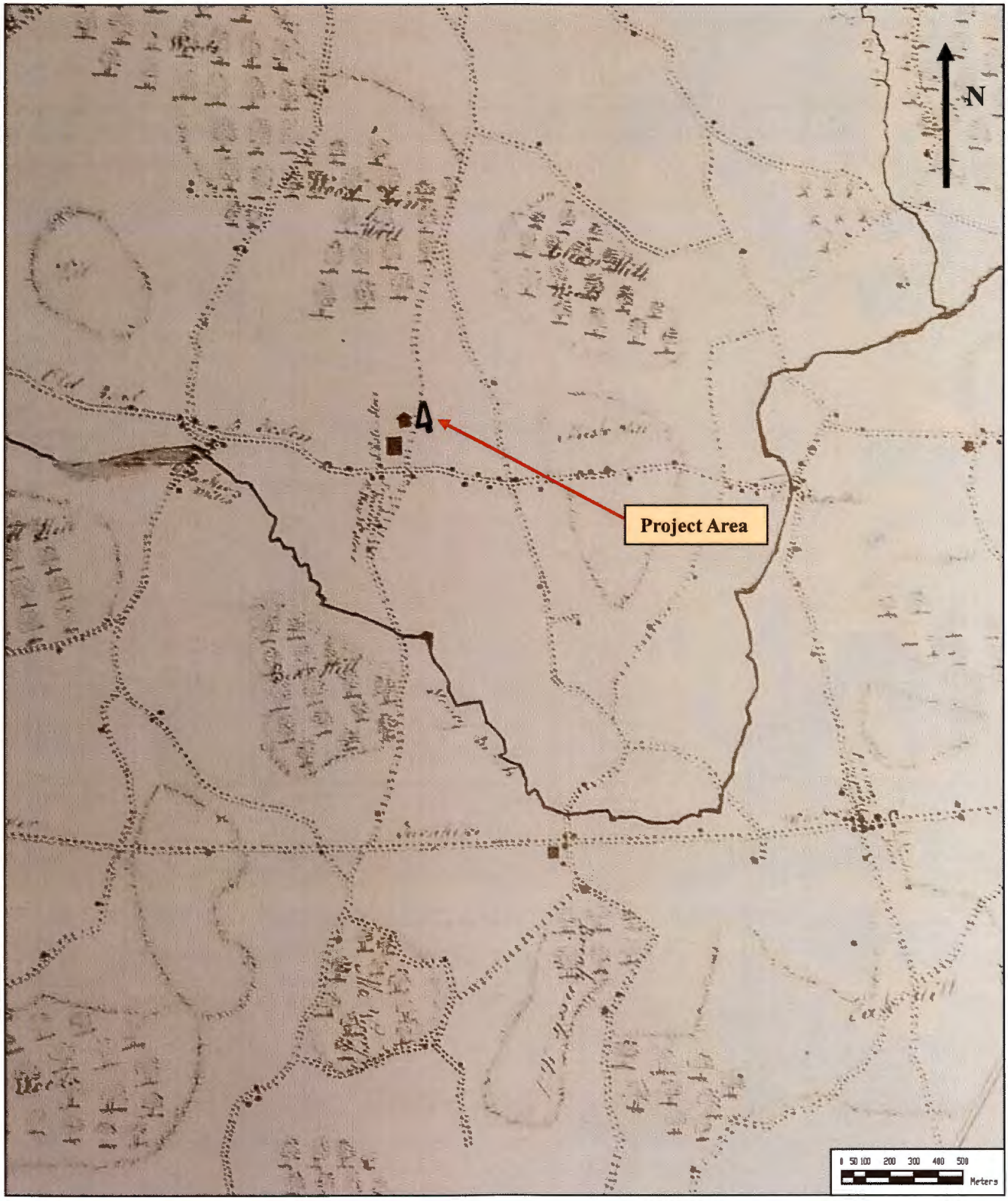

Figure 7: Project location on map section from Newton 1831.

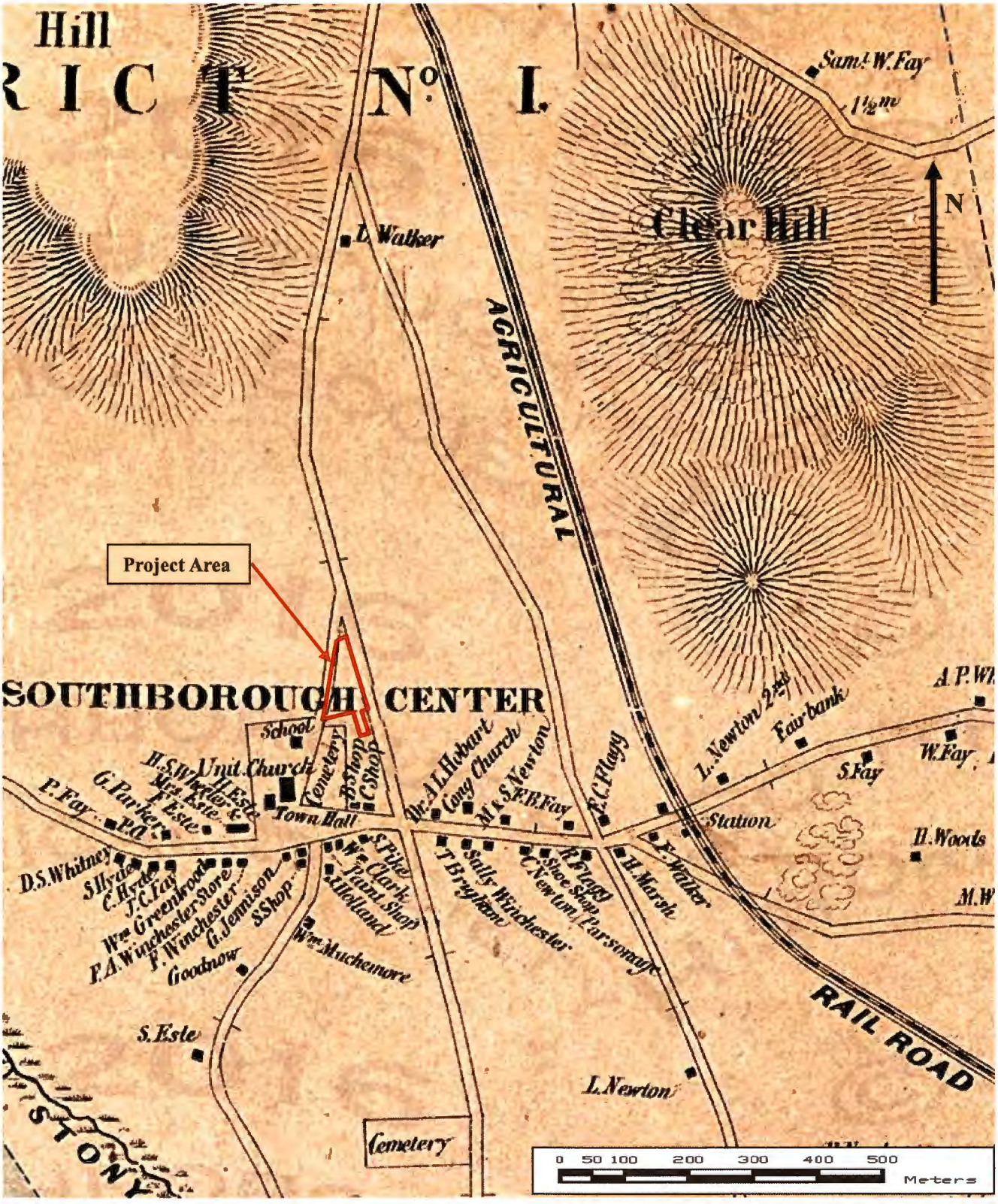

Figure 8. Project location on map section from Walling 1856.

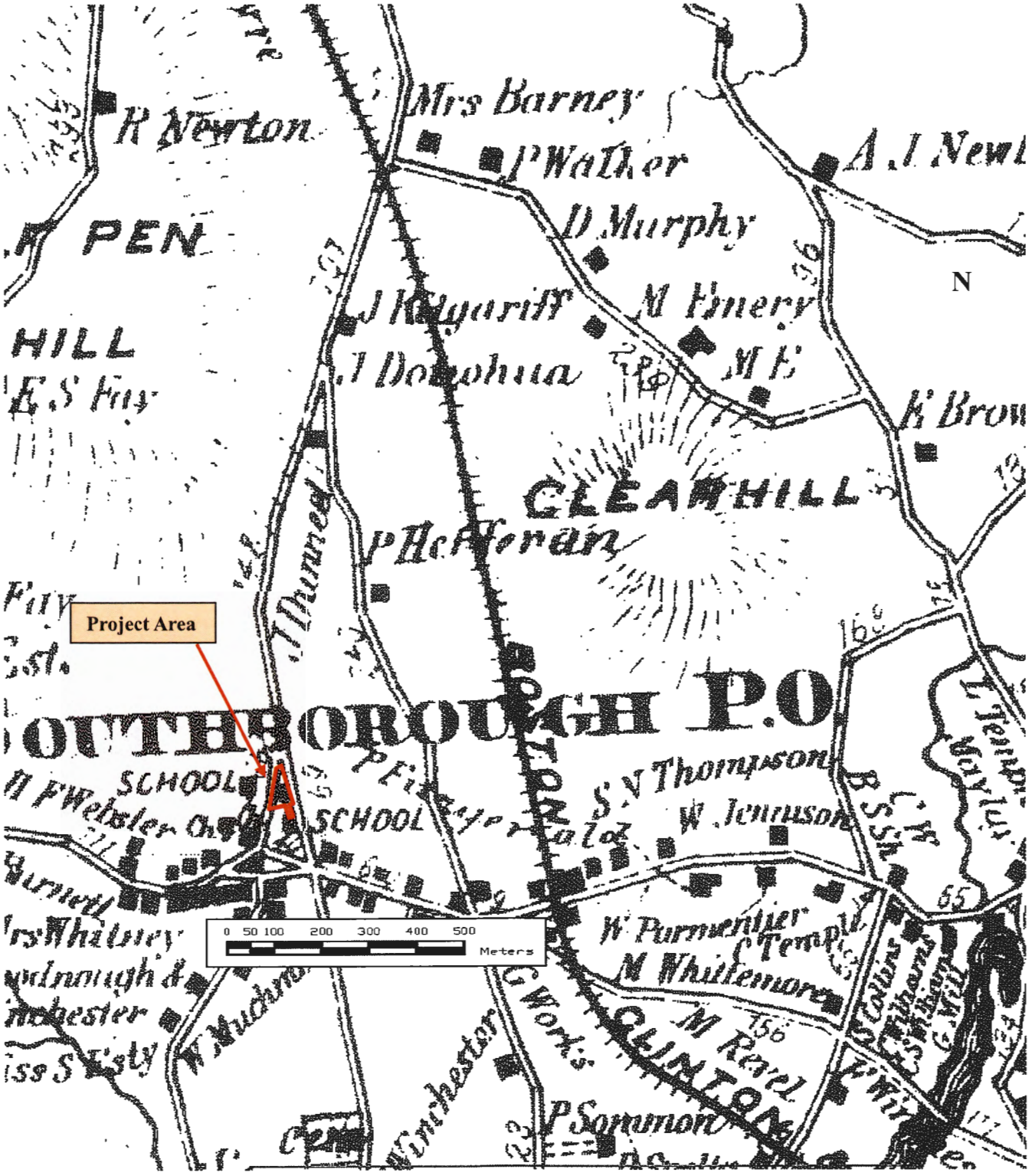

Figure 9. Project location on map section from Beers 1870.

Figure 10. Project location on map section from 1898. Filed with the Southborough Library.

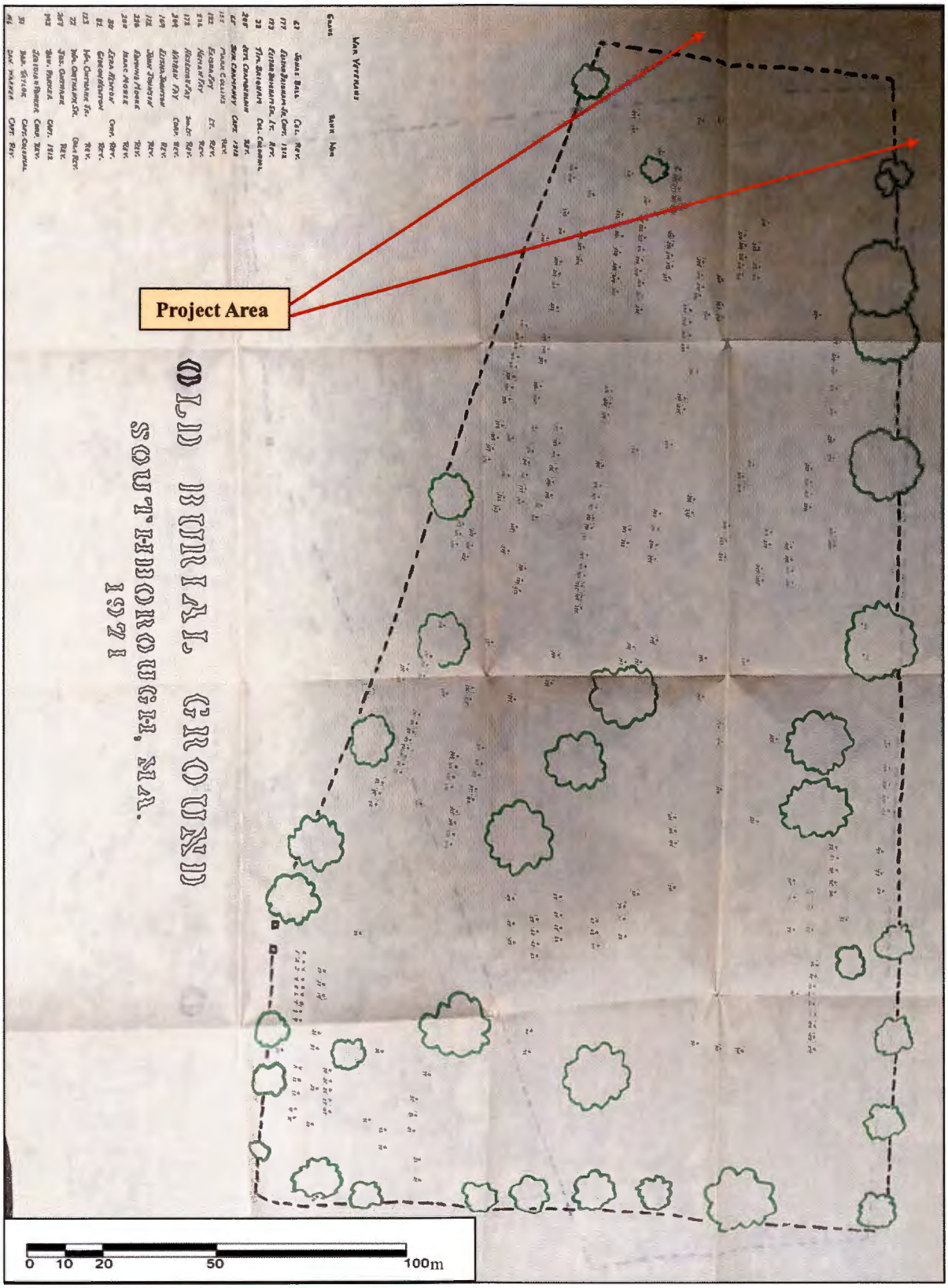

Figure 11. Project location on map section from Anonymous 1971.

Table 1. Known Historic Archaeological Sites within 2 km of the Project Area

Site Number	Period	Type	Location
SBR.HA.05	1851-1898	Dry-laid stone enclosure	East side Sudbury Reservoir
SBR.HA.06	1851-1898	Dry-laid stone foundation	East side Sudbury Reservoir

The reconnaissance survey was conducted for a proposed Massachusetts Water Resource Authority (MWRA) water treatment plant on the Sudbury Reservoir in 1995 (25-1441) (Strauss 1995). These remains are recorded in the MHC archaeological site files as SBR.HA.05 and SBR.HA.06, dated to 1851-1898 based on cartographic evidence. These sites are located on the eastern side of the Sudbury Reservoir approximately one and three-quarters kilometers east of the project area.

Eighty-seven recorded historical structures are located within two kilometers of the project area. The majority of these buildings are residential, dating from the early eighteenth to mid-twentieth centuries. Also included are two churches, a town hall, a library, two public schools, the Fay School building, and a former firehouse. The burial ground itself (SBR.801) lies within the Southborough Town Center (SBR.AG) and was approved for inclusion on the National Register of Historic Places in 2021 as part of the Southborough Center Historic District (SBR.AI). Ten other historic areas are located within two kilometers of the project area. The presence of so many recorded structures, areas, burial grounds, and a National Register District, highlight the intensive use and buildup of the area around the Old Burial Ground since the incorporation of the town in 1727.

D. Historic Archaeological Potential

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

Historic Archaeological potential can be stratified as follows:

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

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

The project area is predicted to have a very high probability for containing historic archaeological remains. Unmarked human burials dating as early as the Contact period could be within the project area, given historic informant information that Nipmuc burials were located in the vicinity of the northeast section of the cemetery where early 18th century Euroamericans estimated burial ground boundaries with the construction of a stone wall that may or may not have reflected the exhaustive inclusion of then unmarked Native American burials. In addition, there could have been historic

burials of marginalized individuals outside the bounds of the formally recognized and enclosed burial ground. Further, the general location of the project area is within the heart of the core of Southborough and its early historic development focus, that included a variety of civic and religious structures and activities. Thus archaeological remains could include burial features and related funerary objects, as well as structural artifacts and material culture related to early civic and religious life in Southborough as structures were rebuilt and moved through time. Features could include associated privies, trash middens, and traces of landscaped planting holes and fence lines.

V. Methods

A. Statement of Purpose and Justification

Archaeological Consulting Services (ACS) was contracted by St. Mark's School of Southborough, Massachusetts, to conduct an intensive (locational) archaeological survey of the project area for proposed improvements, including a historic walk park and walkway connecting to a public walkway adjacent to a historic burial ground. The Massachusetts Historical Commission (MHC) indicated both prehistoric and historic sensitivity based on proximity to the historic cemetery that also reportedly was built at the site of a Nipmuc burial ground.

The project area has a low to moderate potential for ancient Native American archaeological resources given its nearly level to gently sloping setting with well drained soils, although the project area is relatively distant to the nearest major water source. The property has a much higher sensitivity for potential historic archaeological resources, including those of the Contact period, given reports of Nipmuc burials at the adjacent cemetery where there could also be unmarked Euroamerican graves outside the formally recognized boundaries of the cemetery. Additionally, sites related to the early history of the town could be present. In order to evaluate the potential presence of prehistoric or historic sites, including burials, ACS used a combination of shovel testing and soil stripping.

B. Research Design

1. Theory

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

This model relies on site characteristics identified by Dincauze and Meyer, who in 1977 compiled data on site locations in Essex and Middlesex Counties, and found that 47% and 76%, respectively, of the identified sites occupy land with less than an 8% slope on excessively well-drained soils; whereas 10 to

20% lie on well drained soils on 8 to 15% slopes. In 1983, Kenyon and McDowell studied the distribution of sites along the Merrimack River drainage basin, and found 30% of sites on alluvial deposits, 40% on river terraces, and 20% on fluvioglacial deltas, outwash, and lakebeds (Kenyon and McDowell 1983). Almost 90% of the sites were situated within 1000 m of the river, with 60% situated within 200 m, and 75% of these at no more than 20 m in elevation above the river. This latter study concluded that during both the Archaic and Woodland eras, sites were situated close to the river on alluvial or terrace settings.

The coarse model that is used in this study to establish prehistoric sensitivity for the project area indicates a low to moderate sensitivity ranking, given nearly level to gently sloping land and well drained soil contexts. However, the nearest major water sources are at a relatively great distance to the project area, with only an unnamed minor wetlands located about one-half kilometer to the north. Given the reports of unmarked Nipmuc burials at the cemetery, the Contact period sensitivity, and by extension late prehistoric period sensitivity, is elevated.

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

The historic sensitivity of the property is more directly established through historic records and maps. The sensitivity of the project area relates to its proximity to the burial ground, as well as its central location with respect to the town center and buildings related to its early civic and religious life. Besides the reports of Nipmuc burials being located at the northeast section of the burial ground and closest to the project area where the stone wall delineating the formal boundaries of the cemetery were built early in the 18th century, the common historic practice of marginalized individuals being buried just outside the formal cemetery walls results in a heightened possibility for unmarked historic burials being present. Any associated remains could include skeletal remains, grave shafts, funerary objects, or other materials related to early town activities.

2. Field Methods

A testing strategy utilizing systematic 5-meter shovel testing was conducted along the walkway to be built to the east of the cemetery, and along the southern boundary of the impact area just north of the cemetery and adjacent tree line **(Figure 12).** Most of the area north of the cemetery has already been cleared of trees and other vegetation, and therefore will have had some disturbance to subsurface conditions, although any grave features should be deep enough to have survived clearing. The shovel tests were utilized in part to test for grave features, but most substantially to record stratigraphic integrity for the area closest to the cemetery and also the possible presence of other prehistoric and historic site types.

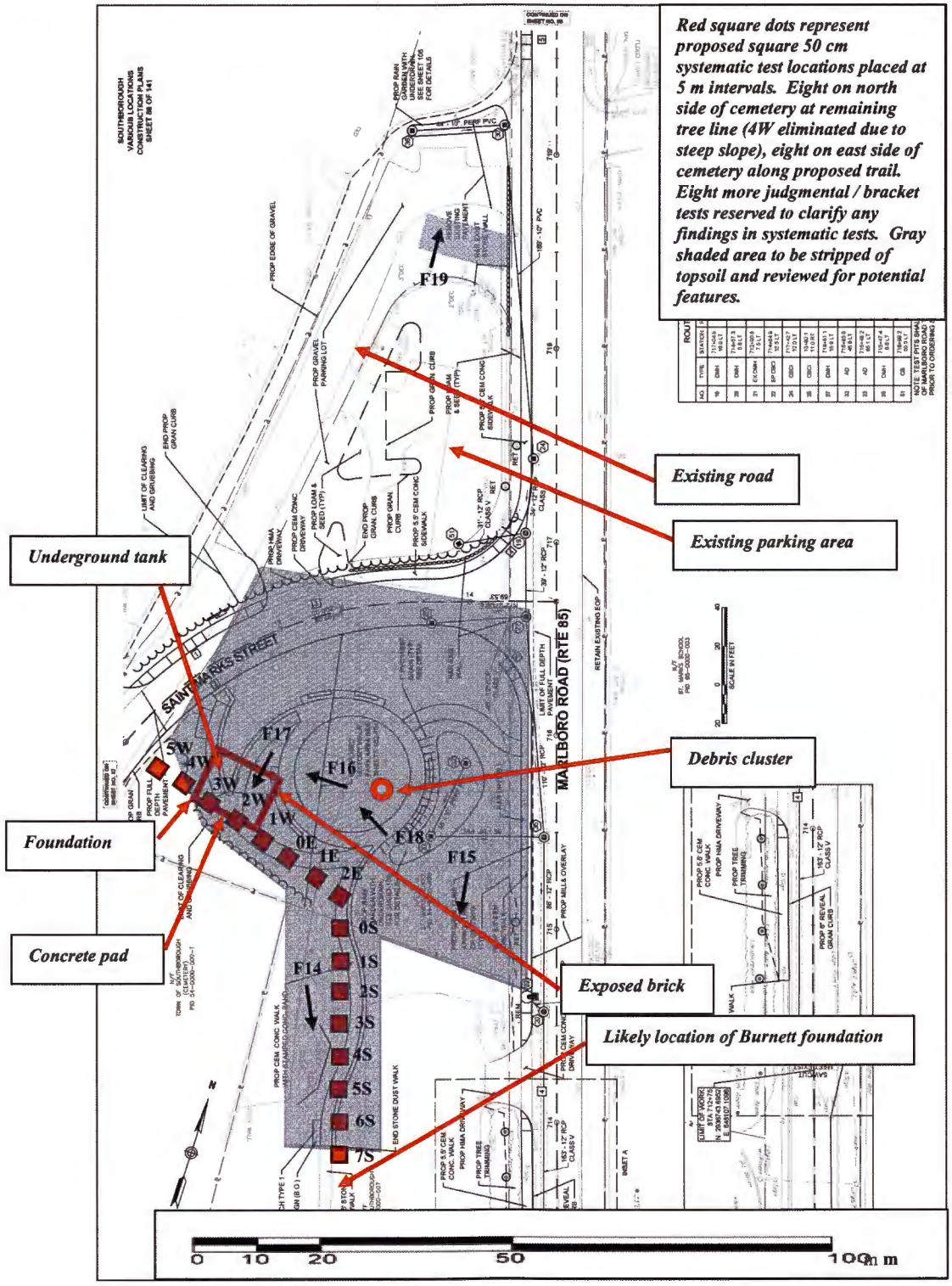

Figure 12. Site Plan and Testing Pattern. *1:1,000 scale.*

Prehistoric sites as well as predicted historic activity areas are often fairly small, and a 5 m sampling interval will typically yield a very high probability for locating sites 12 m or more in diameter, using 30 x 30 cm shovel test pits (see Lightfoot 1986: 493-494). Increasing the test pit size to 50 x 50 cm and/or decreasing the distance between test pits increases the likelihood of identifying sites smaller than 12 m. Kintigh (1988:702-703) noted that small test pits were likely to yield artifacts on high-density sites, whereas larger test pits proved more favorable for artifact recovery on lower density sites, similar to those commonly found in New England (Kintigh 1988: 702-703). The types of potential prehistoric sites predicted for the project area, including small hunting camps or those related to resource extraction, have a high probability for being encountered by using this testing strategy of relatively tight intervals. The same testing density is sufficient for post-Contact historic sites other than burial grounds.

Field work was conducted by the Acting Field Director under the direct supervision of Principal Investigator Gregory F. Walwer, Ph.D of ACS, which has the equipment necessary to successfully carry out the planned field work (e.g. transits, Brunton compasses, long measuring tapes, shovels, screens, tarps, soil sample and artifact collection bags, Munsell Soil Color charts, flagging tape). ACS field methods were conducted in accordance with the State Archaeologist's memorandum on improving photography and cartography, including, for photography, appropriate focus, sharpness, and lighting; the cleaning of sidewalls and floors of shovel tests; elimination of distracting items; use of metric scale bars (vertical for profiles, horizontal for plan view); and use of identification board with legible site and provenience data.

3. Intensive Survey Testing Strategy

Intensive (locational) survey testing (see Figure 12) consisted of sixteen (15) 50-cm square systematic shovel tests within the project area, placed at 5-meter grid intervals in 8-test transects along the eastern and northern sides of the existing cemetery. One proposed test location along the northern transect was eliminated due to a steep sloping surface. The excavation of these tests allowed for a detailed assessment of stratigraphy outside the formal cemetery boundaries.

4. Soil Stripping / Monitoring

Because of the possibility that grave features could be missed by relatively tight interval systematic shovel testing, ACS employed soil stripping across the southern half of the project area to test for possible burial remains. Measuring approximately one-half acre, the southern portion of the project area, as defined by the walkway and area south of the new course of St. Mark's Street and north of the cemetery and vegetated area to remain unimpacted, was subjected to mechanical stripping of topsoil monitored by ACS. Capobianco Contracting of Hopkinton, Massachusetts, provided an operator and excavator with wide flat blade to methodically strip and remove the topsoil layer, thereby exposing any potential grave features.

In the event that any features are encountered, each feature is mapped and sketched in plan view, photographed, and then covered and backfilled for potential subsequent excavation. ACS prepared photographs and measured drawings of any visible above-ground cultural features such as structures or structural remains.

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

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

The Wampanoag Tribe at Gay Head (Aquinnah) and Mashpee Wampanoag Tribal Preservation Officers were notified of the project and approached for any further background information relative to the project area, and once field work is scheduled to begin, they were invited to be present during fieldwork. Given that the project area is adjacent to a burial ground reportedly utilized by Nipmucs prior to early historic Euroamerican use, ACS reached out to tribal historic preservation offices as well as local non-federally recognized Nipmuc representatives with respect to the history of land use in the area, and further consulted with local researchers and members of the Southborough Historical Society.

C. Laboratory Processing and Analysis

ACS has an 850-square-foot facility with a climate-controlled and alarmed office / laboratory in a renovated historic commercial structure at 118 Whitfield Street in Guilford, Connecticut. All recovered cultural material were cleaned, identified, described, and cataloged for analysis at the laboratory of ACS. The artifacts were then placed in labeled acid-free plastic bags in acid-free boxes for curation at The Public Archaeology Laboratory (PAL) in Pawtucket, Rhode Island. The original excavation forms, maps, catalog sheets, and a copy of the final report will accompany the artifacts to the curation facility, and ACS will retain copies of all documentary material on acid free archival quality paper.

Materials recovered during the course of fieldwork were brought back to the laboratory processing facility located in Guilford, Connecticut. Materials were separated on the drying racks to ensure the provenience integrity. Once dry, cultural material and ecofacts were entered into a catalog system. Following cataloging, the material were placed in acid free bags clearly marked with their provenience information and stored in acid free boxes in the lab. Analysis was focused on identifying the nature, period of manufacture, possible use, and interpretation of recovered materials. This analysis, along with the findings from the intensive survey and background research, was used to determine if further testing of the project area in the form of a site examination was warranted.

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

VI. Results

A. Test Distribution and Stratigraphy

The project area consists of several different sections. The southeast section lies along the eastern boundary of the historic cemetery, and is defined by the cemetery stone wall alignment on the west, a pollination garden to the south, the public library parking lot to the east, and a line even with the northern cemetery stone wall to the north. Eight 50cm square shovel tests were plotted in five-meter intervals along the proposed path to be constructed that would connect the History Walk Park with a potential future town walkway **(see Figure 12).** The area is currently a maintained grass lawn with tree cover and scrub growth along the cemetery stone wall, and also contains a line of lights lining the western parking lot boundary with underground electric lines leading to junction box on Marlboro Road. The central section lies to the north of the cemetery, and is also defined by the new course of St. Marks Street to the west and north, and by the existing course of Marlboro Road on the east. This area has been stripped of topsoil and upper subsoil contexts, with two prominent soil piles in place at the start of the survey. Eight more 50cm square shovel tests were plotted in five-meter intervals along the northern cemetery wall boundary and just inside a snow fence indicating a limit of clearing for the park project **(see Figure 12).** Large boulders exposed during excavations that preceded this project were also placed in several piles. The third principal section of the project area is located to the north of the new course of St. Marks Street, bound on the northwest by the existing course of St. Marks Street, and on the east by Marlboro Road. The latter area mostly contains an unpaved parking lot with some traces of former pavement.

Shovel tests conducted along the proposed walk and along the northern cemetery wall boundary revealed a combination of disturbed fill contexts and natural stratigraphy. Recall that the projected soil types for the project area include Canton fine sandy loam along the walkway, and Paxton fine sandy loam to the north, with Canton soils typically revealing 13 cm of a very dark grayish brown (10YR3/2) fine sandy loam A horizon over 38 cm of yellow brown (10YR5/4 to 5/6) fine sandy loam B1 horizon, approximately 15 cm of yellow brown (10YR5/4) gravelly fine sandy loam B2 horizon, and a grayish brown (2.5Y5/2) gravelly sandy loam C1 horizon to a depth of at least 170 cm; while the Paxton soils typically consist of 20 cm of a dark brown (10YR3/3) fine sandy loam A horizon, over 18 cm of dark yellow brown (10YR4/4) fine sandy loam B1 horizon, 28 cm of olive brown (2.5Y/4) fine sandy loam B2 horizon, and an olive (5Y5/3) gravelly fine sandy loam C1 horizon to a depth of at least 165 cm. All 16 plotted test locations were excavated with the exception of 4W along the northern cemetery wall boundary where the snow fence line ascended a short, steep slope. Shovel tests in the field commonly revealed a disturbed fill over a natural lower subsoil and substratum **(Figure 13).**

In the southeast section within the proposed walkway, soil textures were finer than projected, often dominated by a silt loam throughout the profile, with one or two layers of fill over a substratum. A major exception to the typical profile in this area was at the southern end and just north of the library pollination garden, where a deep culturally modified A horizon of dark brown (10YR 3/3) silt loam was exposed beneath 39 cm of fill and extending to at least 64 cm below the surface where traces of the substratum were exposed. Some of the tests in the area revealed small cavities between rocks from imperfect filling, and in Test 3S there was a possible historic fence post mold exposed from 40 cm to

Figure 13: Stratigraphic Profiles. *Test 2S near the northern end of the proposed walkway revealed substantial fill over substratum exposed nearly one-half meter below the surface. At Test 3S, a thin lens of substratum material in the fill was exposed, as well as a deep historic post mold feature in the southeast corner of the test. At Test 7S at the southern end of the walkway and just north of the pollination garden, a modified A Horizon directly overlay substratum at what may be the northern end of the Joseph Burnett house site depicted on a late historic map from 1898. Tests in the walkway area tended to be silt loam, while sandier soils were present in tests along the northern boundary of the cemetery.*

65 cm below the surface. The silt loam substratum in this area was typically a light olive brown (2.5Y 5/4) to pale yellow (2.5Y 7/3) or very pale brown and nearly light gray (10YR 7/3) silt loam.

In the shovel tests along the northern cemetery wall boundary, profiles revealed predictably coarser fine sandy loam and loamy sand textures depending on depth. Here the substratum was typically a pale brown (10YR 6/3) to grayish brown (2.5Y 5/2) loamy sand with significant gravel content. Where present, the subsoils tended to be a dark yellowish brown (10YR 4/6) to yellowish brown (10YR 5/6) fine sandy loam to sandy loam. Only at 0E was a natural dark brown (10YR 3/3) fine sandy loam A horizon revealed below a layer of fill. At 2W, a concrete slab was revealed as part of a larger foundation that extended to the north away from the cemetery wall, and where the surface revealed intensive concentrations of brick, metal piping, mortared cobble stones, and other structural debris reflecting late 19th to early 20th century construction.

Mechanical soil stripping was done within the project area following shovel tests that were primarily devoted to understanding a detailed stratigraphy of the overall site. Backhoe trenches were excavated using a three-foot wide bucket and flat blade in an attempt to expose a broad area of coverage and evaluate the possibility of grave features located outside the current bounds of the existing cemetery. Trenching was typically on the order of three to four meters wide, with soil stripped in long, thin intervals in order to expose a topsoil or fill / subsoil interface in a controlled manner. Shovel tests provided a guide to the depths at which the interface could be expected, with fill layers along the southeast walkway trench exposed to about 40 cm or more below the surface directly above a substratum **(Figure 14).** Another trench extending east to the north of the library parking lot revealed a lower subsoil in the eastern part of the trench and then north along Marlboro Road **(Figure 15).** A trench and further excavations extending west of the proposed walkway along the north edge of the cemetery exposed more aspects of the late 19th to early 20th century foundation, measuring about eight by 11 meters, including mortared brick at the north end of the eastern wall possibly representing the foundation of a porch, a concrete pad and brick rubble at the southern end possibly representing a former chimney, and an underground metal tank at the western end of the feature **(Figures 16 and 17).** Prior vegetation removal and soil stripping in the central part of the project area to the north of the cemetery revealed a very shallow depth to original subsoil or substratum, with one small concentration of dumped structural and household materials measuring about one meter in diameter exposed **(Figure 18).** Another wide trench was placed at the very northern end of the project area to the north of the existing parking lot since one historic map depicts a thicket at the northern end of the property that could in theory relate to the thicket cited as having been removed from the northeast corner of the cemetery where Nipmuc burials could have been located. At this latter area, there was about 40 cm of fine sandy loam gravelly fill above a four-inch layer of asphalt, overlying a thin trace of dark brown (10YR 3/3) silt loam natural A horizon, 10YR 5/4 to 5/6 yellowish brown subsoil layers to about 90 cm below the surface, and a light yellowish brown (2.5Y 6/3) silt loam substratum **(Figure 19).**

Figure 14: Southern Trench. *South view of south trench, revealing substratum directly beneath fill. Pollination garden in background where Joseph Burnett structural site may be located. Library parking lot at left, eastern cemetery boundary at right beyond tree line.*

Figure 15: Eastern Trench. *South view of eastern trench, parallel to Marlboro Road at left, reveals subsoil directly below fill layers. Subsoil was featureless with the exception of some clustering of rock and boulders.*

Figure 16: Western Trench. *Featureless subsoil was exposed beneath upper fill context along the north boundary of the cemetery. Tree line and snow fencing on left, foundation feature in foreground, horizontal one-meter scale bar rests on mortared brick that may have supported a porch section. Scale bars in decimeters.*

Figure 17: Foundation Feature. *South view of Test 2W and foundation feature, including concrete slab and brick rubble. Scale bars in decimeters.*

Figure 18: Central Trench and Debris Cluster. *Northwest view of central trench area, most of topsoil had already been stripped and piled up at background right, entire pile moved to background left. Also visible is typical boulder pile in background from prior stripping of topsoil. Debris cluster was located at lower right.*

Figure 19: Northern Trench. *North view of profile within northern trench, revealing up to 40 cm of fill over a thin asphalt layer, then fill layer above subsoil and substratum layers and large boulder. Scale bars in decimeters.*

B. Artifact Analysis

There were no prehistoric artifacts recovered during the survey. There were no organic materials such as charcoal, bone, or shell encountered that could have either prehistoric or historic origins. The entire artifact assemblage was clearly identified as Euroamerican historic. Artifacts were found generally throughout the project area, but were actively collected from 15 shovel tests placed along the cemetery boundaries and from the concentration of artifacts and debris recorded in the central trench area. The inventory of materials collected during the survey has been segmented into several broad classes of artifacts, and more detailed artifact categories within these classes.

Broad artifact classes used for the current inventory include structural materials (n=86 / 33.3%), household ceramics (n=40 / 15.5%), household glass items (n=25 / 9.7%), fuel-related items (n=103 / 39.9%), and personal items (n=4 / 1.6%), for a total of 258 recovered items. Despite the intensive collection of materials, it must be noted that the relative count of artifacts is severely affected by the integrity of individual artifact classes and categories. For instance, brick fragments constituted significant proportions of the assemblage, with the material being highly fragmented through time and likely at a higher rate than other materials (e.g. nails) based on proportions of refitting pieces and degree of fragmentation. Also, some categories of materials may be severely under or over-represented due to the irretrievability of highly fragmented items, including coal / slag which was often represented only by small flecks too fine to collect from the soil context using normal screening methods. In several cases where a single material was found at a location in relatively large quantities or in highly fragmented conditions (e.g. brick), only samples were taken. Finally, clearly modern debris such as plastic was discarded and did not contribute to artifact counts **(see Appendix 2).** Within each major artifact class, mutually exclusive individual categories by material type were designated on the basis of frequency, material, and function.

Structural Materials

There were 23 brick fragments recorded during the survey, found throughout the project area, but particularly clustered at the foundation feature and in the nearby debris cluster of the central trench. Most of the brick was too highly fragmented for complete size measurements, although when complete, bricks tended to be about 7-5/8 to 8 inches (194 to 203 mm) long, 3-5/8 to 3-3/4 inches (92 to 95 mm) wide, and 2-1/4 to 2-3/8 inches (57 to 60 mm) thick. Bricks tended to have some wavering edges and a lack of embossed characters, thus were likely mid to late 19th century in origin, and their size ranges suggest that they post-date the 18th century. While existing size guidelines to chronological assessment can be regarded as rough estimates at best, dating sites by brick content is further hampered by the tendency of historic recycling of structural materials through time (Noel-Hume 1970:81-82). Some brick fragments had traces of mortar, and some were also sooted, thus confirming a former chimney structure. Nearly all brick was red, although one yellow brick fragment was recovered from Test 1W. Directly related to the presence of brick, the eight fragments of other structural materials are cement or mortar found at the foundation feature.

There were eight cut nail fragments recovered at or near the foundation feature. Most were too fragmented or oxidized to reveal type of head, but all are reliably dated to after 1800 (Mercer 1976:10). The three wire nails recovered, found near the foundation and along the proposed walkway, post-date 1850 when they started to be produced, although it was well after this time that they became widely used (Noel-Hume 1970:253-254). Of the 24 other hardware fragments, most are likely fasteners that are too oxidized for further classification, and many are simply severely oxidized nail fragments.

Window glass accounts for 20 artifacts, and was found to be widely distributed at the site. The vast majority of window glass fragments consist of clear to aqua-tinted fragments which are on the order of two to three millimeters thick, and nearly all do not bear the patination that is typically associated with very old pieces. However, the lack of patination is due in part to the acidity of soil in the area, which serves to neutralize weathering effects on silicate materials. Most likely date to after 1832 when the more modern broad glass or "sheet" manufacturing processes resulted in window glass that was relatively uniform, with a lack of substantial imperfections such as sand, stress lines, and air bubbles found in older forms of window glass (Noel Hume 1970:234-235). One slightly patinated fragment from the debris concentration area in the central trench also bears traces of glazing.

Household Ceramics

There were 25 recovered fragments of household ceramics, which can be broadly divided into readily identifiable types such as redware (n=4 / 10.0%); whiteware (n=5 / 12.5%); ironstone china (n=27 / 67.5%); porcelain (n=2 / 5.0%); and stoneware (n=2 / 5.0%). The household ceramics make up less than one-fifth of the material assemblage, but were found very widely distributed.

There were four redware fragments recovered, all having glazes missing from weathering, except for a fragment from the debris cluster in the central trench area that has an iron-manganese glaze. The lead-glazed forms mostly represent kitchenwares pre-dating 1870, and tend to be relatively thick. The red earthenware forms are difficult to date, having been manufactured broadly after the 17th century and into the present.

White earthenware sherds recovered during the survey represent vessels produced after 1820 (Noel-Hume 1970:130) as potters began to perfect the whitening of the glaze which had been targeted for many years by those seeking to imitate the appearance of china. There were five fragments of whiteware recovered from the property, likely representing a variety of tableware vessels. These wares have a date range which broadly extends to the present, although the sherds recovered mostly have a clear crackled glaze which suggests they are not modern. Several pieces are undecorated, although one rim fragment from Test 2E bears a blue hand-painted decoration likely dating from 1830 to 1865 or later, while another blue-edged rim fragment was recorded at the debris feature in the central trench area.

Semi-vitreous ironstone china is represented on the property by 27 pieces, and makes up more than two-thirds the ceramic assemblage. Ironstone chinas were frequently made as table and service wares, but because of their durability, other vessel forms include utilitarian vesse.s such as chamber pots and cooking wares. Ironstone china was manufactured from about 1813 to 1900 or later (Noel-Hume

1970:131; South 1977:211), with a peak of popularity between 1840 and 1890. Undecorated ironstone china fragments were found at the southern end of the proposed walkway alignment and also within the debris concentration in the central trench area, including fragments of a mug or thick tea cup, saucer, plate, and chamber pot. More vitreous porcelain fragments were also present at the property, including one hand-painted polychrome piece found near the foundation at Test 0E, and another undecorated fragment found along the proposed walkway at Test 4S.

The stonewares are another semi-vitreous category, with pieces mostly representing larger, thicker, utilitarian vessels such as pots and jugs commonly produced during the 19th Century, and often with deep internal grooves and channels indicative of engine-turning. There were two fragments of stoneware recovered during the survey, including one buff stoneware piece with traces of brown interior glaze from Test 1W near the foundation feature, and another gray salt-glazed stoneware piece from the debris concentration of the central trench area that had a dark brown glaze similar to the Albany slip glazes commonly present on pieces made after 1805.

Household Glass

Household glass accounts for only 25 items, or less than ten percent of the historic artifact assemblage. Within this class, 18 represent bottles, the other seven represent indeterminate or other types of vessels. Even this relatively low number may be artificially inflated given the likely presence of modern bottle glass introduced into the historic site context, particularly for clear glass fragments as federal laws applied to medicinal and consumed products prohibited the use of dark bottle colors to disguise contents after 1880 (Yount 1971:6). Air bubbles present on an aqua-tinted glass bottle fragment from Test 5S and on an amber glass bottle fragment from the debris concentration in the central trench area indicate manufacture before 1920 (Yount 1971:5). Another clear glass bottle fragment from the debris concentration at the central trench area bears embossed characters in recessed panel that may represent a medicinal bottle. Also from the same area, another clear glass bottle finish with applied lip bears air bubbles and a mold seam half way through the finish, indicating a likely date range of 1860 to 1880 (Yount 1971:100).

Seven other glass vessel fragments are clearly not from bottles. Curved glass pieces were found in the southern part of the proposed walkway, with some likely representing lantern globes or other light fixtures, and some were also burnt or melted.

Fuel-Related Items

Fuel-related items recovered during the survey include 103 fragments of coal and slag found throughout the project area. Coal is definitively fuel-related, having been imported into the region in bulk after the mid to late 19th century with the advent of the railroad for home and industrial use. Because of the late historic use of coal as a common fuel source, it has important implications for interpretations of site chronology, as it typically reflects site occupation in the latter half of the 19th century and into the first half of the 20th century. The coal found at the site was found in a variety of

stages of burning, including those fully or partially spent, and often to a slag state so that the two materials were not sorted separately.

Personal Items

The personal items category of artifacts is designed to reflect those materials that were typically utilized by individuals and those that could effectively be considered portable as articles of clothing or personal possessions. At Test 2W within the foundation feature, a heavily oxidized metal container fragment bears a rolled edge and may represent a food container. At nearby Test 3W, two fragments of a black clay pigeon were recorded. At Test 7S, a heavily oxidized metal button back fragment was found within a fill context.

C. Distribution and Interpretation of Sites

The survey included a combination of shovel tests and excavated trenches that provided valuable information regarding what is present and what is not present at the site. Most critically, none of the tests or trenches revealed any traces of features that could relate to burial contexts. The primary directive of the survey was to determine if any Nipmuc or early historic unmarked burials could be present outside the current formally recognized boundaries of the cemetery and within the project area. Neither shovel test transects with tests placed at relatively tight five-meter intervals nor three to four-meter wide excavation trenches set parallel to the north and east boundaries of the cemetery and elsewhere within the project area revealed any grave features that would be evident at the topsoil / subsoil interface. In many cases, historic landscaping, construction, and filling activity resulted in one or two layers of fill directly above a lower subsoil or substratum. Historic references indicate that the Nipmuc burials were clustered at a thicket towards the northeast corner of the old burial ground, and it could be that the burials were contained within the current cemetery walls in an area that currently has no gravestones **(see Figure 11).** Alternatively, a sketch map of the area provided by Noble (1990:40) shows a thicket at the intersection of Marlboro Road and what appears to be the course of St. Marks Street, although a wide trench placed at this part of the project area and another trench placed parallel to Marlboro Road further to the south also failed to reveal any grave features. In addition, there was a lack of any traces of indigenous artifacts recovered during shovel testing or trench excavations. Best evidence suggests that any Nipmuc burials in the area are likely contained within the northeast vacant section of the currently recognized cemetery boundaries, and/or possibly immediately outside the cemetery walls but within a narrow corridor of wooded property that will remain undeveloped.

Noble (1990:40) and historic maps also show how the early civic structures and features were all located to the south and west of the burial ground, including the meeting house, pounds, carriage sheds, school house, and work house. It is not until 1870 that maps show two structures within the project area – one immediately east of the old burial ground, one immediately to the north, and it is known that the parcel belonged to St. Marks School founder, Joseph Burnett. A sketch map from 1898 shows that the structure east of the cemetery belonged to Burnett, while the structure to the north was not present by the turn of the century. A foundation feature at the northern structure location appears to be late 19th to early 20th century in origin, and may have been rebuilt or replaced early in the 20th century, with a

modern concrete slab beneath the southern end of the building where a brick chimney was located. To the northeast of the foundation, a concentrated cluster of dumped structural and household artifacts likely related to the demolition of the northern structure and subsequent landscaping. No structural features were found related to the eastern structure, other than possibly a historic fence post mold, with the location of the house foundation likely beneath the current pollination garden. The southernmost test placed closest to the pollination garden contained a deep modified A Horizon or early fill layer directly above substratum, likely reflecting the northern edge of the structural site area. Artifacts from both areas consist of structural and household domestic artifacts ranging from the mid-19th through early 20th centuries, with ceramics dominated by undecorated ironstone chinas (including chamber pot fragments) rather than refined or highly decorated earthenwares, suggesting a modest institutional focus for the structures. Coal dominates the contexts of both structural areas, although the underground tank at the northern structure may reflect a shift in fuel use in the early 20th century at that location. Overall, artifact density for shovel tests was 61.6 per square meter, although when eliminating coal, there were 8.5 artifacts recovered per shovel test on average. The relatively light density of structural and household materials was likely a combination of relatively brief occupation and use of the structures, as well as the institutional setting of the school that might contribute to a lower density of material than traditional residential occupations.

Historic maps, historic literature, and tax assessor information also suggest that the project area and both structures likely relate to the formation and maintenance of the St. Marks and Fay schools, both established towards the end of the Civil War. William Washington, the first free African American resident of Southborough, was a caretaker or steward of St. Marks, having originally worked on the Deerfoot Farm of the Joseph Burnett family, and reportedly lived in a house at or near the intersection of Main Street and Marlboro Road (Noble 2015), with the map from 1898 showing one principal structure at approximately the pollination garden at this time. Washington was steward of the school until replaced by his son Edwin, who occupied a house on school street. Land records indicate that the library parcel was sold from the Fay School in 1911, while St. Mark's School was involved in the transaction for the northern triangular parcel in 1911.

VII. Conclusion

A. Cultural Resource Summary

Cultural resources of the project area identified during the Phase I intensive (locational) archaeological survey did not include any prehistoric or historic Native American artifacts or feature contexts, including burial features. Historic references indicated Nipmuc burials at or near the northeast corner of the existing old burial ground where some thickets were removed before the cemetery wall was built there in 1727, and may either be contained within the burial ground or just outside the walls but not within the project area. A late 19th to early 20th century structural foundation was recorded just north of the burial ground, where a concrete slab beneath a chimney fall and other cement work and construction materials suggest it may have been rebuilt or built over a preceding late 19th century structure. An 1870 historic map shows a structure at this location, as well as at the southern end of the proposed trail where a pollination garden now stands. At the latter location, shovel tests revealed a deep culturally modified topsoil that may be the northern end of a structural site, which is likely contained under the pollination garden directly south. Historic artifacts (n=258) at both locations were dominated by coal, but also included late historic bottle glass; structural materials such as red brick, cut and wire nails, and window glass; and a ceramic assemblage dominated by ironstone china, with some whiteware, porcelain, stoneware, and redware also present. The only personal items recovered include a heavily oxidized button back, two clay pigeon fragments, and a tin can (possible food container) fragment. Much of the ceramic is undecorated, and may reflect an institutional focus, which conforms well with historic references to a steward of St. Mark's School living at the property until the early 20th century when St. Mark's acquired the northern lot and the town acquired the southern lot for its library construction.

B. Recommendations

ACS recommends no further archaeological conservation of subsurface contexts for the current project, which includes the history park and the walkway leading south as far as the pollination garden at the library lot. Excavation trenches did not reveal any traces of burial shafts or grave features that could represent reported Nipmuc burials at or near the northeast corner of the existing burial ground. It could be that any unmarked Nipmuc burials are contained within the existing stone walls of the burial ground in the northeast section where there is a sizable area without headstones, or just outside the walls but not within the projected impact area. Currently, a snow fence divides the narrow wooded strip of land bordering the northern boundary of the cemetery from the project area, and this should be maintained. Similarly, the narrow strip of wooded land immediately adjacent to the eastern wall of the cemetery and to the west of the proposed walkway should be avoided by construction activity. If site plans change to impact either area adjacent to the cemetery, further archaeological investigation should occur subject to guidance from the Massachusetts Historical Commission (MHC).

With respect to historic artifacts and features, ACS identified two areas containing evidence of structures related to prior school use of the property. Towards the southern end of the proposed walkway, a shovel test revealed a deep modified topsoil directly above substratum that possibly relates to a late 19th century structural site principally located under the adjacent pollination garden. The

structure likely relates to the school use of the property after the formation of St. Marks School in the late 19th century, and possibly housed the steward of the school who was also reportedly the first free African American in Southborough. Just north of the burial ground, a foundation is exposed at the surface, with a concrete slab revealing its late historic origin and possible replacement of another structure that appears on a map from 1870. Both areas contain late historic structural and household artifacts, the latter of which are typically undecorated and lack distinction. Both structures were also relatively short lived, and out of use by the early 20th century when the library was built. The northern foundation is also associated with a nearby pocket or dump of debris. None of the features or artifacts recovered are significant or indicative of a site eligible for the National Register of Historic Places (NRHP).

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Appendix 1: Field Test Summary – Phase I Shovel Tests

Test #	Layer I Color	Layer I Texture	Layer I Depth cm	Layer II Color	Layer II Texture	Layer II Depth cm	Layer III Color	Layer III Texture	Layer III Depth cm	Layer IV Color	Layer IV Texture	Layer IV Depth cm	Auger cm	Close Reason	Comments
0E	10YR3/3	Fill fsl	23	10YR 3/3	A fsl	41	10YR5/4	B1 sl	50	10YR 6/3	C1 lsand	80	70	arb	Rocky A, gravelly C
1E	10YR3/3	Fill fsl	40	10YR5/6	B1 sl	57	2.5Y6/2	C1 lsand	90				70	arb	Rocky subsoil truncated
2E	10YR3/2	Fill fsl	35	10YR4/6	B1 fsl	52	10YR5/6	B2 sl	60	2.5Y5/2	C1 lsand	78	70	arb	Gravelly lower profile
1W	10YR3/4	Fill sloam	20	10YR3/3	A sloam	35	10YR5/4	B1 sloam	57	10YR6/3	C1 sloam	78	70	arb	Gravelly lower profile
2W	10YR5/6	Fill gravel	14	10YR6/3	C1 lsand	20								arb	Test offset 50cm north of concrete slab
3W	10YR3/3	Fill sloam	30											arb	Foundation debris
4W															Skipped due to steep slope
5W	10YR5/3	Fill sloam	60	10YR6/3	Fill sloam	90							68	rck	Rocky and gravelly profile
0S	10YR3/2	Fill fsl	30	10YR6/4	Fill sloam	54	2.5Y5/2	C1 lsand	70				30	arb	Compact Layer II
1S	10YR3/2	Fill fsl	21	10YR4/3	Fill sl	36	2.5Y5/4	C1 sloam	65				50	arb	Rocky and gravelly profile
2S	10YR3/3	Fill sloam	43	10YR7/3	C1 sloam	62							50	rck	Compact C horizon
3S	10YR3/3	Fill sloam	40										40	arb	Possible historic post mold to 65cm
4S	10YR4/3	Fill sloam	27	2.5Y7/3	C1 sloam	60							35	arb	C horizon iron staining
5S	10YR3/3	Fill sloam	33	10YR7/3	C1 sloam	62							48	arb	
6S	10YR3/3	Fill sloam	22	10YR4/4	Fill sloam	40	2.5Y7/3	C1 sloam	70				50	arb	
7S	10YR4/3	Fill sloam	39	10YR3/3	A sloam	64								rck	Original A deeply buried

Abbreviations: arb - arbitrary termination; com - termination due to compact soil; compact; csand – coarse sand; fsand - fine sand; fsl - fine sandy loam; grv - termination due to dense gravel; gravel, gravelly; lfs - loamy fine sand; lo – lower; lsand - loamy sand; lsilt – loamy silt; mtld – mottled; prof – profile; rck - termination due to rock; rock, rocky; scl - sandy clay loam; sl - sandy loam; sloam - silt loam; unc - termination due to unconsolidated sediments; wtr - termination due to water

Appendix 2: Artifact Catalog

Accession Number	Test Number	Level	Layer	Qty	Class	Material	Description	Weight
001	0E	I	1		1	Ceramic	Porcelain	Porcelain fragment with hand-painted polychrome decoration 1.0g.
002					1	Fuel	Coal/Slag	Coal fragment 5.0g.
003	0E	I	2		5	Fuel	Coal/Slag	Coal fragments 5.7g.
004	0E	I	3		2	Structural	Iron	Heavily oxidized indeterminate nails 8.8g.
005					3	Fuel	Coal/Slag	Coal fragments 5.9g.
006	0S	I	2		1	Glass Vessel	Bottle Glass	Aqua-tinted glass bottle fragment 0.3g.
007					1	Fuel	Coal/Slag	Coal fragment 0.9g.
008	1E	I	1		1	Structural	Iron	Heavily oxidized cut nail fragment (1825+) 2.9g.
009					2	Structural	Iron	Heavily oxidized indeterminate nail fragments 4.9g.
010					4	Fuel	Coal/Slag	Coal fragments 100.2g.
011	1W	I	1		6	Structural	Iron	Heavily oxidized fastener fragments 24.4g.
012					7	Fuel	Coal/Slag	Coal fragments 11.3g.
013	1W	I	2		1	Ceramic	Stoneware	Buff stoneware fragment with traces of brown interior
014								glaze, squared rim 15.5g.
015					1	Structural	Window Glass	Clear window glass fragment 0.2g.
016					4	Structural	Brick	Red brick fragments 2.1g.
017					2	Fuel	Coal/Slag	Coal fragments 11.4g.
018	1W	II	3		1	Structural	Yellow	Yellow brick fragment 3.5g.
019					2	Structural	Brick	Red brick fragments 6.0g.
020					5	Fuel	Coal/Slag	Coal fragments 4.1g.
021	1W	II	4		5	Structural	Iron	Heavily oxidized indeterminate nail fragments 29.4g.
022	1W	II	5		1	Structural	Iron	Heavily oxidized indeterminate nail fragment 8.4g.
023					3	Fuel	Coal/Slag	Coal fragments 9.8g.
024	2E	I	2		1	Ceramic	Whiteware	Whiteware rim fragment with dark blue hand-painted decoration, squared rim (1830-1865+) 0.7g.
025	2S	I	1		1	Ceramic	Whiteware	Whiteware fragment, crackle glaze (>1820) 0.2g.
026					1	Structural	Window Glass	Clear window glass fragment 0.4g.
027					1	Glass Vessel	Bottle Glass	Clear glass bottle fragment 0.1g.
028					1	Structural	Window Glass	Aqua-tinted window glass fragment 0.4g.
029					1	Glass Vessel	Bottle Glass	Green glass bottle fragment 1.4g.
030					1	Glass Vessel	Bottle Glass	Amber glass bottle fragment 1.4g.
031					1	Structural	Iron	Heavily oxidized wire nail, probable roofing nail 3.4g.
032					4	Fuel	Coal/Slag	Coal fragments 2.6g.
033	2S	I	2		1	Fuel	Coal/Slag	Coal fragment 2.6g.
034	2S	I	3		1	Fuel	Coal/Slag	Coal fragment 0.2g.

Appendix 2: Artifact Catalog, continued

Accession Number	Test Number	Level	Layer	Qty	Class	Material	Description	Weight
035	2W	Surface			1	Structural	Brick	Red brick fragment, traces of sooting, 3 5/8 in wide, 2 3/8 in thick	>1200g.
036					1	Structural	Brick	Red brick fragment, 7 5/8 in long x 3 ¾ in wide x 2 ¼ in thick	>1200g.
037	2W	I	1		1	Structural	Iron	Heavily oxidized cut nail with machine-stamped head (1825+)	5.8g.
038					1	Structural	Iron	Heavily oxidized wire nail (>1850)	3.0g.
039					5	Structural	Iron	Heavily oxidized indeterminate nail fragments	12.5g.
040					6	Structural	Iron	Heavily oxidized cut nail fragments	16.2g.
041					2	Structural	Brick	Red brick fragments	288.4g.
042					4	Structural	Cement	Cement fragments	103.3g.
043					1	Personal	Iron	Heavily oxidized metal container fragment	3.8g.
044					8	Fuel	Coal/Slag	Coal fragments	64.5g.
045	3S	I	1		1	Ceramic	Whiteware	Whiteware fragment (>1820)	0.2g.
046					1	Glass Vessel	Bottle Glass	Clear glass bottle fragment	1.1g.
047					1	Glass Vessel	Bottle Glass	Amber glass bottle fragment	0.4g.
048					1	Structural	Iron	Heavily oxidized wire nail fragment (>1850)	4.4g.
049					1	Structural	Iron	Heavily oxidized indeterminate nail fragment	0.9g.
050					8	Fuel	Coal/Slag	Coal fragments	80.1g.
051	3S	I	2		5	Fuel	Coal/Slag	Coal fragments	9.6g.
052	3S	I	3		1	Glass Vessel	Bottle Glass	Clear glass bottle fragment	0.3g.
053					2	Fuel	Coal/Slag	Coal fragments	4.1g.
054	3S	I	4		1	Structural	Brick	Red brick fragment	1.0g.
055					1	Fuel	Coal/Slag	Coal fragment	1.1g.
056	3W	I	1		1	Structural	Window Glass	Aqua-tinted window glass fragment	1.6g.
057					1	Structural	Brick	Red brick fragment	8.8g.
058					4	Structural	Cement	Cement fragments	191.5g.
059					2	Personal	Clay	Black clay pigeon fragments	10.5g.
060	4S	I	2		1	Ceramic	Porcelain	Porcelain fragment	6.1g.
061					2	Glass Vessel	Curved Glass	Clear curved glass vessel fragments, burnt	2.2g.
062					1	Glass Vessel	Bottle Glass	Clear glass bottle fragment	0.5g.
063					11	Fuel	Coal/Slag	Coal fragments	11.0g.
064	4S	I	3		1	Glass Vessel	Curved Glass	Clear curved glass fragment	0.4g.
065					1	Fuel	Coal/Slag	Coal fragment	0.2g.
066	5S	I	2		1	Glass Vessel	Curved Glass	Aqua-tinted curved glass fragment, melted	3.6g.
067					1	Glass Vessel	Curved Glass	Aqua-tinted curved glass fragment	0.6g.
068					1	Structural	Brick	Red brick fragment	0.5g.

Appendix 2: Artifact Catalog, continued

Accession Number	Test Number	Level	Layer	Qty	Class	Material	Description		Weight
069					9	Fuel	Coal/Slag	Coal fragments	24.6g.
070	5S	I	3		1	Structural	Window Glass	Clear window glass fragment	0.4g.
071					2	Structural	Iron	Heavily oxidized metal fragments	3.5g.
072					2	Structural	Brick	Red brick fragments	0.5g.
073					6	Fuel	Coal/Slag	Coal fragments	10.5g.
074	5S	I	7		1	Ceramic	Whiteware	Whiteware fragment (>1820)	0.7g.
075					2	Structural	Window Glass	Aqua-tinted window glass fragment	3.2g.
076					1	Glass Vessel	Bottle Glass	Aqua-tinted bottle glass fragment, air bubbles (<1920)	5.0g.
077					4	Fuel	Coal/Slag	Coal fragments	1.7g.
078	5S	II	7		6	Structural	Window Glass	Aqua-tinted window glass	12.7g.
079					1	Structural	Window Glass	Clear window glass	0.2g.
080	6S	I	1		1	Structural	Iron	Heavily oxidized indeterminate nail fragment	16.6g.
081					2	Structural	Window Glass	Aqua-tinted window glass fragments	0.9g.
082					1	Structural	Brick	Red brick fragment	0.8g.
083					2	Fuel	Coal/Slag	Coal fragments	5.6g.
084	6S	I	2		1	Ceramic	Ironstone China	Ironstone china fragment, crackled glaze (1813-1900+)	1.8g.
085					1	Ceramic	Ironstone China	Ironstone china plate fragment with partial foot ring, crackle glaze, burnt (1813-1900+)	1.7g.
086					2	Glass Vessel	Bottle Glass	Clear glass bottle fragments	1.2g.
087					1	Structural	Window Glass	Clear window glass fragment	1.4g.
088					2	Structural	Window Glass	Aqua-tinted window glass fragments	2.4g.
089					1	Structural	Brick	Red brick fragment	0.8g.
090					3	Fuel	Coal/Slag	Coal fragments	3.5g.
091	7S	I	3		1	Ceramic	Redware	Redware fragment	1.0g.
092					1	Ceramic	Ironstone China	Ironstone china fragment (1813-1900+)	0.4g.
093					1	Personal	Metal	Heavily oxidized metal button back fragment	0.6g.
094					1	Glass Vessel	Curved Glass	Clear curved glass fragment	1.1g.
095					1	Fuel	Coal/Slag	Coal fragment	4.2g.
096	7S	I	4		1	Ceramic	Redware	Redware fragment	0.7g.
097					9	Ceramic	Ironstone China	Ironstone china fragments, burnt Discarded duct tape	5.3g.
098					1	Glass Vessel	Curved Glass	Clear curved glass fragment	0.7g,
099	7S	II	5		1	Glass Vessel	Bottle Glass	Clear glass bottle fragment	3.3g.
100					1	Glass Vessel	Bottle Glass	Amber glass bottle fragment	0.6g.
101					1	Structural	Brick	Red brick fragment	1.9g.
102					1	Fuel	Coal/Slag	Coal fragment	1.1g.
103	7S	II	6		1	Structural	Brick	Red brick fragment	0.2g.

Appendix 2: Artifact Catalog, continued

Accession Number	Test Number	Level	Layer	Qty	Class	Material	Description	Weight
104					1	Fuel	Coal/Slag	Coal fragment	0.2g.
105	7S	II	7		3	Fuel	Coal/Slag	Coal fragments	3.7g.
106	Central Trench	I Artifact Concentration			1	Ceramic	Redware	Redware fragment	5.2g.
107					1	Ceramic	Redware	Redware fragment with iron-manganese glaze (<1870)	27.7g.
108					1	Ceramic	Stoneware	Grey salt-glazed stoneware rim fragment with dark brown Albany slip on interior, 8cm exterior rim diameter (1805-1900+)	26.1g.
109					4	Ceramic	Ironstone China	Ironstone china fragments, two with plain rounded rims (1813-1900+)	89.9g.
110					4	Ceramic	Ironstone China	Ironstone china saucer rim fragments (several refit) with foot ring, Plain rounded rim, one with partial maker's mark "…ENGLAND", 15cm rim diameter (1813-1900+)	102.3g
111					1	Ceramic	Ironstone China	Ironstone china fragment, burnt (1813-1900+)	4.2g.
112					2	Ceramic	Ironstone China	Ironstone china rim fragments with everted rim, probable chamber pot (1813-1900+)	119.9g.
113					1	Ceramic	Ironstone China	Ironstone china base fragment with deep foot ring (1813-1900+)	93.6.
114					1	Ceramic	Ironstone China	Ironstone china tea cup or mug rim fragment, ~10 cm rim diameter (1813-1900+)	7.3g.
115					1	Ceramic	Ironstone China	Ironstone china base fragment with foot ring (1813-1900+)	24.1g.
116					1	Ceramic	Ironstone China	Ironstone china base fragment with foot ring (1813-1900+)	19.1g.
117					1	Ceramic	Whiteware	Blue-edged whiteware fragment (>1820)	5.4g.
118					1	Glass Vessel	Bottle Glass	Aqua-tinted rectangular glass bottle fragment, air bubbles, slightly patinated (<1920)	44.1g.
119					1	Structural	Window Glass	Aqua-tinted window glass, traces of glazing, slightly patinated	15.4g.
120					1	Glass Vessel	Bottle Glass	Blue glass bottle fragment	10.7g.
121					1	Glass Vessel	Bottle Glass	Amber glass bottle base fragment, air bubbles (<1920)	53.0g.
122					1	Glass Vessel	Bottle Glass	Clear glass bottle fragment with characters in recessed panel "…ORIA"	4.7g.
123					1	Glass Vessel	Bottle Glass	Clear glass bottle finish fragment, mold seam half way through finish, applied lip, air bubbles (1860-1880)	28.5g.
124					2	Structural	Brick	Red brick fragments	575.6g.

Appendix 2: Artifact Catalog, continued

Accession Number	Test Number	Level	Layer	Qty	Class	Material	Description	Weight
125					1	Structural	Brick	Red brick fragment, with traces of sooting, ~8 in long x ~3 ¾ in wide x ~2 ¼ thick	>1200g.

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

November 7, 2022

Gregory F. Walwer
Dorothy N. Walwer
Co-Principal Investigators
Archaeological Consulting Services
118 Whitfield St.
Guilford, CT 06437

RE: History Walk Park & Walkway, Roadway Improvement Project, St. Mark's Street and Marlboro Road (Route 85), Southborough, MA. MHC #RC.70609.

Dear Mr.and Mrs. Walwer:

Thank you for providing the Massachusetts Historical Commission (MHC) with a copy of the report *Phase I Intensive (Locational) Archaeological Survey, St. Mark's School, History Walk Park and Walkway, Southborough, Massachusetts*, that you prepared for the project referenced above.

To complete the reporting, please provide the MHC with

- A second copy of the report;
- A CD with a Word file listing the report authors, date, title, page count, and including the archaeological abstract that adds that the steward was reportedly the first free African American in Southborough; and
- Completed MHC archaeological site forms for the two structural foundations. Please attach to the site forms USGS locus maps that each indicates the precise location of each site (labeled with the site name) and a copy of report Figure 12 (pg. 25) amended with the site names.

These comments are offered to assist in compliance with M.G.L Chapter 9, Sections 26-27C (950 CMR 70). If you have any questions or require additional information, please contact me.

Sincerely,

Edward L. Bell
Deputy State Historic Preservation Officer
Senior Archaeologist
Massachusetts Historical Commission

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.state.ma.us/sec/mhc

Appendix D

too much hardscape

Plan 2 - too much hardscape; too big a plaza
Plan 3 - still too much disruption to property

History walk, similar to Freedom Trail; small plaza in corner nearest Flagg School
placard~~s~~ looking at St. Martin's, OBG, Flagg School, Pilgrim, Town House, St. Martin's Church
Plant large trees, pollinator garden stay where it is in plan 3.
along 85
No wi fi

Emblem in middle of plaza - 1727 - 2027
Some iron or granite benches

Tricentennial Park - name
History - theme

see above - Design
smaller plaza w/ compass rose in middle 1727 - 2027 "Tricentenial Park"
- 2 granite or iron benches for seating
- Pollinator garden
heritage trees on border of 85
- leave available portion for future library expansion
- history walk courtyard (in laid brick or painted on sidewalk)
up past Pilgrim church, in front of town Hall, ending at Main St.
(to be continued along Main St at a future date)
- I
- V
- N
- P
- W
- E
- V.
- PI

Table 3
David, Patti, Janet, Sally
Kevin, Grant

— Deal with slope
- smaller capacity
- Not just an area for group, can be used by whole town
- Monument to Southborough's Freedmen (W. Washington)
- Trex Benches
- Seating
- Fence / Barrier on 85? *
  - Like fence on town common, low to stop children
- Water bubbler, bottle filler *
- Lighting (Ground Lighting)
- Shade analysis
- Ampitheatre-like design (Plan 2) *
- No fruit trees above seating areas
- Visible from road
- No pond/fountain
- Place to park
- Wifi/electricity for phone charging
- EV charging in library
- Usable table with seating
- Pleasant Place to Meet People

(D) Design (T) Theme (N) Name

Minimize Lawn !!!
Question Cos
Natural Lawn Alternative
Lawn Scatter Rugs 'Where Needed → Children hours
Rain Garden → Pollinators
indigenous Plant Theme Garden
Shade Sail till trees get large

Music / drum circles

Benches with backs
chess tables checkers
Concrete game corn hole
water bottle Filler (dog)
Public Art
Fun Memorial Markers
Interactive Feature - For all
Maze shrubs

Base Bones Minimize
Photo Opp location (design Natural)

Lighting / Path / motion sensored

What can be added later

* Focus bare bones Land scaping
  Flexible skelaton Structure to be added to over time

memorial in old Burial Ground

① Historical Marker

gathering space (multiple use) organic use with Native Land scaping
For

Future enhancements

1) Design
Bonne - 3 sidewalks should be extended to St. Maki
Circle - regardless ← extend
Bonn - seating further away from road

2) Theme B - Movable - library
Ryn - look at min 2 spaces at
or site - rare
Ryn - Party lot wifi
- St. Malo park - rights
- Bus drop off Players
in Library Party lot -
or Party lot not wide
enough

3) Name

Appendix E

Park & Trail

Small plaza with inlaid compass rose/historical plaque in middle (1727-2027) features podiums with brief descriptions of areas of historical importance within view and creates an origination point for the history walk. History walk would be highlighted with inlaid brick in new sidewalks and a painted trail on existing sidewalks or pavement.

Because of potential issue with burials outside OBG at intersection of St. Mark's Street and Common Street, Option 2 may be a better solution.

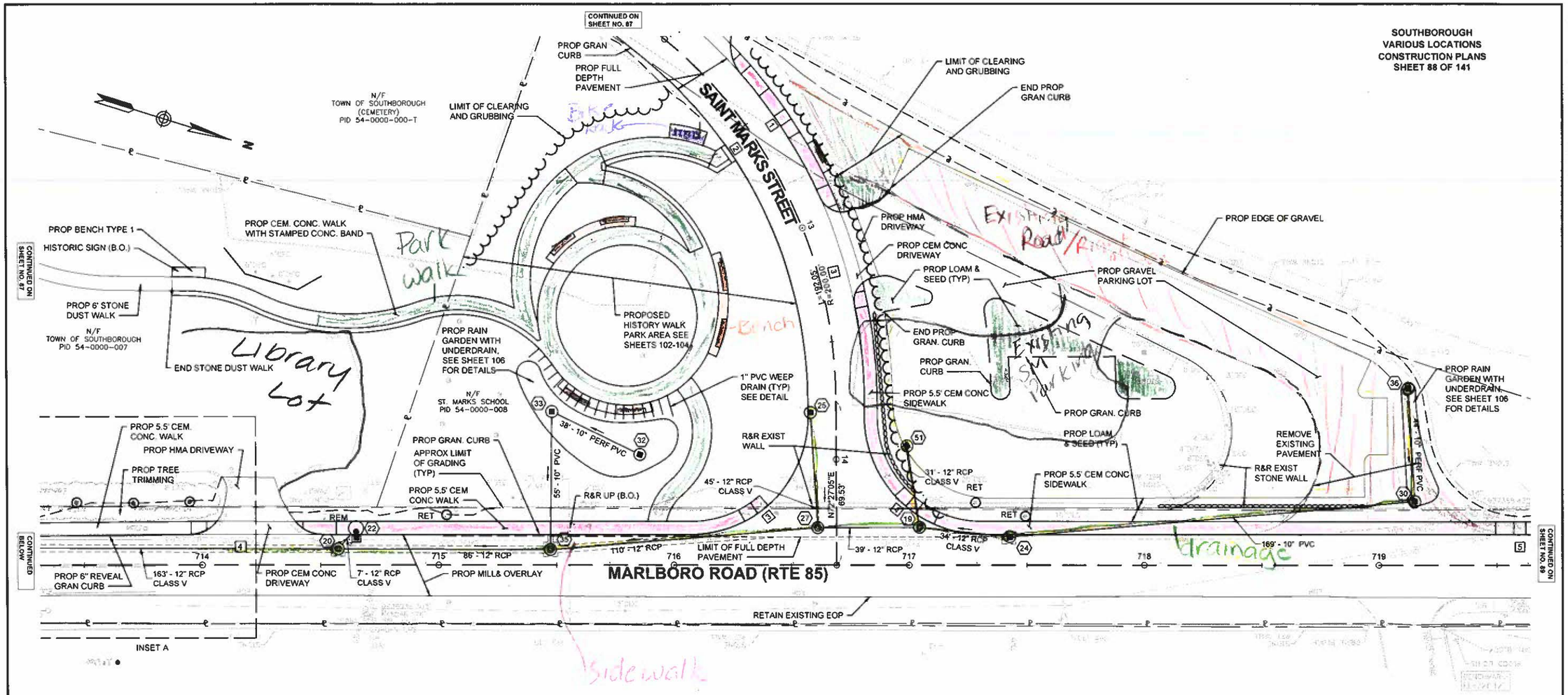
History Walk Option 1 continues along St. Mark's Street to Common Street, in front of Town House to end at Main St. (for future expansion)

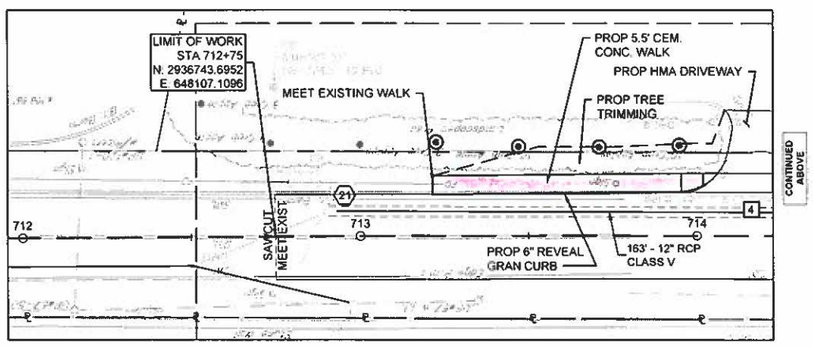
History Walk Option 2 turns right, passing in front of Flagg School, by the Burnett Cemetery, past the Town Pound, turning left to continue between the Town House and St. Mark's Church (new sidewalk?) to end at Main St. (for future expansion).

History Walk stops with info:
- Brief history of Southborough in plaza, dedication to Nipmucs
- Old Burial Ground
- Flagg School
- St. Mark's School
- Town Pound
- Burnett Cemetery
- Pilgrim Church
- All Wars Memorial
- Town House
- St. Mark's Church

Example of podiums to be used along the History Walk

Appendix F





N/F
ST. MARKS SCHOOL
PID 65-0000-003

20 0 20 40
SCALE IN FEET

ROUTE 85 DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
19	DMH	717+04.5 16.0 LT	321.64	(51) 318.00 (24) 317.60	317.30	
20	DMH	714+57.3 6.8 LT	316.02	(35) 312.10 (22) 312.10	312.00	
21	EX DMH	712+90.6 7.5 LT	310.86	(20) 307.50		CONFIRM INVERT OUT PRIOR TO ORDERING STRUCTURE
22	SP CBCI	714+64.9 15.5 LT	316.14		312.30	
24	CBCI	717+42.7 12.0 LT	322.25	(30) 318.10	318.00	ECCENTRIC CONE
25	CBCI	13+80.1 11.0 RT	321.04		317.70	
27	DMH	716+61.1 15.9 LT	320.67	(19) 316.70 (25) 317.00	316.60	
32	AD	716+85.6 46.9 LT	317.50		314.80	
33	AD	715+48.2 65.1 LT	317.50	(32) 314.80	314.80	
35	DMH	715+47.4 6.6 LT	318.77	(27) 314.10 (33) 314.10	314.00	
51	CB	716+99.2 50.5 LT	322.80		318.40	

NOTE: TEST PITS SHALL BE TAKEN AT THE STRUCTURES ALONG THE WEST SIDE OF MARLBORO ROAD TO CONFIRM THE LOCATION OF THE FIBER OPTIC CABLE PRIOR TO ORDERING STRUCTURES.

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AS	1	Acer saccharum	Sugar Maple	3 - 3 1/2" CAL.
BN	3	Betula nigra - Clump	Birch River 'Heritage'	8 - 10' HT., CLUMP
LT	1	Liriodendron tulipifera	Tulip Tree	3 - 3 1/2" CAL.
QB	1	Quercus bicolor	Swamp White Oak	3 - 3 1/2" CAL.
QC	2	Quercus coccinea	Scarlet Oak	3 - 3 1/2" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TO	3	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	5 - 6' HT.

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AA	4	Amelanchier arborea	Shad Tree - Downy Clump	8 - 10' HT., CLUMP

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CA	29	Clethra alnifolia	Summersweet Shrub	2 - 3' HT.	48" o.c.
CS	20	Cornus sericea 'Artic Fire'	Dogwood - Redosier 'Artic Fire'	2 - 3' HT.	48" o.c.
HV	5	Hamamelis virginiana	Common Witch Hazel	2 - 3' HT.	120" o.c.
IV	24	Ilex verticillata 'Sparkleberry'	Sparkleberry Winterberry	3 - 4' HT.	72" o.c.
MG	32	Myrica gale	Sweetgale	2 - 3' HT.	48" o.c.
PP	3	Pinus mugo pumilio	Dwarf Mugo Pine	30 - 36" HT./SPD.	60" o.c.
RR	6	Rhododendron maximum roseum	Pink Rosebay Rhododendron	3 - 4' HT.	108" o.c.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
LS	25	Liatris spicata	Spike Gayfeather	1 GAL.	18" o.c.
MD	18	Monarda didyma	Bee Balm	1 GAL.	48" o.c.

ORNAMENTAL GRASS DRIFTS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CP	585	Carex pensylvanica	Pennsylvania Sedge	1 GAL.	12" o.c.
ES	172	Eragrostis spectabilis	Purple Love Grass	2 GAL.	24" o.c.
SL	196	Schizachyrium scoparium	Little Bluestem	2 GAL.	30" o.c.

PERENNIAL DRIFTS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
AT	291	Asclepias tuberosa	Butterfly Milkweed	1 GAL.	18" o.c.
AN	166	Aster novae-angliae	New England Aster	1 GAL.	30" o.c.
EP	20	Eutrochium purpureum	Sweet Joe Pye Weed	1 GAL.	36" o.c.
IV2	26	Iris versicolor	Blue Flag	1 GAL.	24" o.c.
PD	229	Penstemon digitalis	Beardtongue	1 GAL.	18" o.c.
PS	122	Phlox subulata 'Emerald Pink'	Emerald Pink Creeping Phlox	1 GAL.	18" o.c.
RH	159	Rudbeckia hirta	Black-eyed Susan	1 GAL.	24" o.c.
WF	233	Waldsteinia fragarioides	Appalachian Barren Strawberry	1 GAL.	24" o.c.

Relocated St. Mark's Street

SOUTHBOROUGH
VARIOUS LOCATIONS
LANDSCAPING PLANS
SHEET 103 OF 141

1 TO, 3 MD, 60 AT, 1 QB, 33 AN, 5 LS, 31 SL, 146 AT, 50 SL, 70 PD, 255 CP, 118 PD, LOAM AND SEED, 23 SL, 3 MD, 33 AN, 72 RH, 65 AT, 3 AA, 5 LS, 1 PP, 41 ES, 38 PS, 44 AN, 42 WF, 12 MG, 7 IV, 18 AN, 5 MG, 3 MD, 7 CA, 2 HV, 2 QC, 3 RR, 7 IV, 5 LS, 119 CP, 1 AS, 7 MG, 25 RH, 11 SL, 3 MD, 65 WF, 57 ES, 46 PS, 32 RH, 8 CS, 34 ES, 10 CA, 3 MD, 41 PD, 14 IV2, 12 CA, 20 ES, 13 WF, 3 HV, 5 CS, 34 CP, 13 SL, 12 IV2, 9 EP, 10 IV, 3 MD, 3 BN, 38 PS, 8 MG, 2 RR, 11 WF, 7 CS, 1 PP, 46 SL, LOAM AND SEED, 177 CP, 1 AA, 73 WF, 1 TO, 21 AN, 1 RR, 22 SL, 30 RH, 17 AN, 20 ES, 5 LS, 29 WF, LOAM AND SEED, 1 LT

Bike
Bench
Sidewalk
Concrete walkways
Garden/Plantings

N

10 0 10 20
SCALE IN FEET

CONTINUED ON INSET THIS SHEET

INSET

SOUTHBOROUGH
000-007

315

LOAM AND SEED

LOAM AND SEED

1491-HKJLALDWG Plotted on: 24-Jun-2021 11:39 AM

14931-HDC(CON).DWG Plotted on 24-Jun-2021 11:34 AM

COMMON STREET

TOWN HALL LOT

LIMIT OF WORK
STA 9+85
N: 2936781.2754
E: 647723.6784

SAWCUT

PROP HMA DRIVEWAY

SAWCUT MEET EXIST

ST MARKS STREET

BEGIN GRAN CURB +84

PROP MILL AND OVERLAY

PROP 5.5' CEM CONC WALK

END PROP MILL AND OVERLAY BEGIN FULL DEPTH PAVEMENT +50

SAWCUT

PROP HMA DRIVEWAY

PROP CEM CONC DRIVEWAY

REMOVE EXISTING PAVEMENT PROP LOAM AND SEED

LIMIT OF CLEARING AND GRUBBING

END PROP GRAN CURB

Existing Road

RET

RET EXISTING STONE WALL

RET EXISTING EDGE OF PAVEMENT

N17°25'56"E
283.25'

BEGIN GRAN CURB +50

PROP LOAM & SEED (TYP)

PROP FULL DEPTH PAVEMENT

PROP HMA DRIVEWAY

LIMIT OF CLEARING AND GRUBBING

PROP LOAM & SEED (TYP)

PROP CEM CONC DRIVEWAY

N/F
TOWN OF SOUTHBOROUGH
(CEMETERY)
PID 54-0000-000-T

R=1000.00'
L=182.25'

PROP 6" REVEAL GRAN CURB

PROPOSED HISTORY WALK PARK AREA SEE SHEETS 102-104

PROP TREE PROTECTION FENCE

PROP BENCH TYPE 1

PROP HISTORIC SIGN

END WALK

PROP CEM. CONC. WALK WITH STAMPED CONC. BAND

PROP 6' STONE DUST WALK (B.O. - TOWN)

MEET EXISTING SIDEWALK

PROP PROP RAIN GARDEN WITH UNDERDRAIN, SEE SHEET 106 FOR DETAILS

1" PVC WEEP HOLE (TYP) SEE DETAIL

38' - 10" PERF PVC

45' - 12" RCP CLASS V

55' - 10" PVC

N/F
ST. MARKS SCHOOL
PID 54-0000-008

N/F
TOWN OF SOUTHBOROUGH
PID 54-0000-007

Library Lot

CONTINUED ON SHEET NO. 88

20 0 20 40
SCALE IN FEET

NOTES:

1. SURVEY WAS PERFORMED BY VHB, INC., WATERTOWN, MA IN MAY 2018 AND SUPPLEMENTED IN FEBRUARY 2021.
2. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET. REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).