

PRESERVATION PLAN



PENNSYLVANIA AFRICAN AMERICAN CEMETERY STEWARDSHIP PROGRAM

Byberry Township African American Burial Ground
Philadelphia, Philadelphia County, Pennsylvania

PREPARED FOR:

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1608 Walnut Street, Suite 1702, Philadelphia, PA

Society to Preserve Philadelphia African American Assets
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March 2024



RICHARD
GRUBB &
ASSOCIATES, INC.

Preservation Plan

Pennsylvania African American Cemetery Stewardship Program

**Byberry Township African American Burial Ground
Old Townsend Road, Burling Avenue, and Meeting House Road
Philadelphia, Philadelphia County, Pennsylvania**

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African American Cemetery Project
Pennsylvania Hallowed Grounds



The Society to Preserve Philadelphia African American Assets



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March 2024

Table of Contents

1.0 Project Description and Methodology	6
Project Description.....	6
Project Background.....	8
Methodology.....	9
Fieldwork	11
2.0 Physical Description and Brief History of Byberry Township African American Burial Ground	13
Physical Description.....	13
Brief History of Byberry Township African American Burial Ground.....	29
Recent History.....	40
3.0 Overall Assessment of Byberry Burial Ground	42
4.0 Preservation Plan.....	45
Recordation of the Cemetery.....	45
Parcel Boundary Survey.....	45
Non-Invasive Geophysical and Remote Sensing Surveys	46
PHMC Site Files	48
Establish a Protective Buffer Zone Around the Cemetery.....	48
Secure Managerial Control of the Cemetery.....	49
Signage.....	50
Site Clearing.....	50
Prior to a Volunteer Cleanup Day	52
On a Volunteer Clean-up Day:.....	53
Cleanup Notes Prior to a GPR Survey.....	54
Research.....	54
Community Outreach and Involvement	55
Maintenance.....	55
Setting Priorities.....	55
Inspections.....	55
Weeds.....	56
Ground Cover.....	56
Trees and Shrubs	56
Trash.....	57
5.0 Recommendations for Byberry Township African American Burial Ground	58

Summary58
Task: Recordation and Managerial Control of the Cemetery.....58
Task: Site Clearing and Maintenance59
Task: Memorialization, Outreach and Involvement.....59
6.0 References.....61

Appendix A: Staff Resumes

Appendix B: Cemetery Glossary

Appendix C: PHMC Cemetery Site Form (blank)

Appendix D: Current PHMC Archaeological Site Form for Byberry Burial Ground

List of Figures

Figure 1. Pennsylvania Heritage Areas (Courtesy of Mindy Crawford, Preservation Pennsylvania). ...7
Figure 2. Panoramic view of cleared area within cemetery (view to northeast from intersection, left, to National Archives and Records Administration (NARA) building, right)12
Figure 3. Approximate location of Byberry Burial Ground on ESRI street map (2024).....15
Figure 4. Approximate location of Byberry Burial Ground relative to historic streets, shown on a 2018 aerial photograph (City of Philadelphia 2018).16
Figure 5. Approach to Byberry Burial Ground from the west along the former Burling Avenue17
Figure 6. View from Byberry Burial Ground west down Burling Avenue.....17
Figure 7. Approach to Byberry Burial Ground from the former Meeting House Road (facing southwest)18
Figure 8. View southwest along the former Townsend Road. The cemetery is located above the cutbank to the left of the image.....18
Figure 9. Detail of cutbank with architectural debris in the vicinity of Byberry Burial Ground (view to east).19
Figure 10. Signs of dumping along Townsend Road, view to east. This location is potentially slightly south of the cemetery parcel.19
Figure 11. Interior of Byberry Burial Ground, view to east20
Figure 12. View to northeast of Byberry Burial Ground clearing, showing impassable scrub vegetation20
Figure 13. Semi-buried stone debris within the cemetery (notebook for scale)21
Figure 14. Potential monitoring well encountered within the vicinity of the cemetery, with notebook for scale (View to south).....21
Figure 15. Detail of defunct electrical utility along Townsend Road (facing southwest). Notebook included for scale.22
Figure 16. Potential modern property boundary, facing northeast. Pencil for scale.....23
Figure 17. Detail of erosion on cutbank, revealing subsoil24

Figure 18. Panorama from within Byberry Burial Ground, facing southeast towards NARA building (background).....24

Figure 19. From left to right: utility pole, path, vegetated swale, fence, and NARA building (facing northeast)25

Figure 20. "Dead end" of Townsend Road, facing southwest.....25

Figure 21. Detail of curved stone fragment found to the north of Burling Avenue26

Figure 22. Map of location of curved stone fragment relative to Byberry Burial Ground, including 2ft contours that show topographic variation in the vicinity of the cemetery (City of Philadelphia 2018; DCNR 2008).....27

Figure 23. Slate paver stone in situ at the edge of the Byberry Burial Ground lot, view to west. Notebook for scale.28

Figure 24. The 1906 property plan as reproduced in Menkevich (2015:7). The cemetery is delineated by a dashed line.32

Figure 25. Approximate location of Byberry Burial Ground on 1938 Aerial (USDA FSA 1938).....33

Figure 26. Approximate location of Byberry Burial Ground on 1950 aerial (USDA FSA 1950)34

Figure 27. Approximate location of Byberry Burial Ground on 1971 aerial (USDA FSA 1971)35

Figure 28. Approximate location of Byberry Burial Ground on 1983 aerial infrared photograph (USDA 1983).....36

Figure 29. Approximate location of Byberry Burial Ground on 1993 aerial (USGS 1993).....37

Figure 30. View of the cemetery (outlined in black) facing northeast in 1993 (Louis Berger & Associates 1993:10).....38

Figure 31. Aerial view of the 1993 investigations at the time of the study (Louis Berger & Associates 1993:9).39

Figure 32. Final mapped cemetery buffer as shown in a 1994 survey (reproduced in Menkevich 2015:n.p.).....40

Figure 33. Approximate locations of property boundaries as understood at the time of construction of the NARA facility (City of Philadelphia 2018, Menkevich 2015, Louis Berger & Associates 1993)44

Figure 34. Examples of two informal stone markers from Mount Gilead AME Church cemetery in Buckingham, Bucks County,51

1.0 Project Description and Methodology

Project Description

The Pennsylvania African American Cemetery Stewardship Program (PAACSP) is a program that partners Pennsylvania Hallowed Grounds (PAHG) and Preservation Pennsylvania (Preservation PA) with the goal of assisting ongoing preservation efforts to help cemetery stewards with plans for future preservation efforts and to address immediate cemetery conservation needs. Funding for this program comes from the African American Cultural Heritage Action Fund (AACHAF) through the National Trust for Historic Preservation (NTHP) with support from the JPB Foundation and the 1772 Foundation.

PAHG, in partnership with Preservation PA, was one of 33 organizations to receive a total of \$3 million in grant funding to advance ongoing preservation activities for historic places such as sites, museums, and landscapes that represent African American cultural heritage. With more than \$80 million in funding, the AACHAF is the largest U.S. resource dedicated to the preservation of African American historic places.

PAHG's mission is "to honor, interpret, and preserve African American cemeteries and the burial sites of Civil War African American sailors and United States Colored Troops in Pennsylvania." The organization connects and builds the capacity of stewards of these cemeteries and burial sites, and supports conservation, documentation, education, and training. Working collaboratively with other groups and organizations, PAHG provides tangible encounters with memory and enriches the public understanding of history (Pennsylvania Hallowed Grounds 2024).

Preservation PA is the Commonwealth's only private statewide nonprofit organization dedicated to helping people protect and preserve the historic places that matter to them. The organization assists individuals, organizations, corporations, and governmental agencies from across the Commonwealth (and sometimes the nation) in their own preservation-related efforts, through a dynamic scope of activities and services. Whether as a leader, partner, or advisor, Preservation PA works to secure the future of the past through educational outreach workshops and events, legislative advocacy, advisory and technical assistance in the field, and other special initiatives (Preservation Pennsylvania 2024).

Preservation PA, PAHG, and their partners selected 13 cemeteries to participate in the PAACSP; served as advisors to the volunteer projects; promoted this project; and highlighted the work of participating cemeteries. The 13 historic African American cemeteries selected for this program are in the following Heritage Areas: Schuylkill River Greenways, Allegheny Ridge, Susquehanna, Lincoln Highway, Lumber Heritage Region, and Rivers of Steel (Figure 1). These cemeteries have active stewards groups working to care for each cemetery. Four of the PAACSP cemeteries received grants to prepare historic preservation plans. This preservation plan for the Byberry Township African American Burial Ground (Byberry Burial Ground) is one of the five preservation plans prepared by Richard Grubb & Associates, Inc. (RGA). The scope of work for the plans included the following:

- Development an actionable, site-specific preservation plan and/or specifications for direct project assistance for each cemetery.
- A visit to each cemetery and meet with the cemetery's stewards to listen and learn about each site, its operations, features, and preservation needs. RGA will then prepare a written

evaluation and a site-specific maintenance and preservation plan for each cemetery that will identify and prioritize the steps required to appropriately maintain and preserve the site. The plan will identify work that volunteers can complete, and work requiring the skills of professionals. The plan will also provide practical steps for helping the cemetery stewards to implement its recommendations.

- Coordination with Preservation PA in partnership with PAHG.

The Preservation Alliance for Greater Philadelphia (Preservation Alliance) is a membership-based, not-for-profit advocacy organization that shines a spotlight on the places that make the Philadelphia region special and gives a voice and a toolbox to those who care deeply about protecting these places for the future. Through educational outreach, planning efforts, and direct advocacy, the Preservation Alliance is the region’s principal public champion of the historic built environment. The Preservation Alliance serves the following counties in Pennsylvania: Bucks, Chester, Delaware, Montgomery, and Philadelphia. The Preservation Alliance serves Burlington, Camden, Gloucester, and Mercer counties in New Jersey, and New Castle County in Delaware (Preservation Alliance of Greater Philadelphia 2024).



Figure 1. Pennsylvania Heritage Areas (Courtesy of Mindy Crawford, Preservation Pennsylvania).

For Byberry Burial Ground, the Preservation Alliance is working in close partnership with the Society to Preserve Philadelphia African American Assets (SPPAAA), a local non-profit organization. SPPAAA’s mission is “to act to increase education and awareness and advocate to preserve African American history as represented by historic and culturally significant assets” such as cemeteries, historic properties, monuments, and archaeological sites (SPPAAA 2022).

This report is arranged in six chapters. Chapter 1 contains the project description, background, methods used to complete the study, and descriptions of RGA’s fieldwork for the project. Chapter 2

presents a physical description of the Byberry Burial Ground and presents a summary of the cemetery's physical and administrative development, which have brought the cemetery to its current state. Chapter 3 presents a general, big-picture assessment of the cemetery's landscape features and overall condition. Chapter 4 outlines a preservation plan with goals, objectives, and basic recommendations for Byberry Burial Ground's stewards, and includes examples of successful projects at other African American cemeteries. Chapter 5 outlines detailed recommendations for Byberry Burial Ground's stewards, and Chapter 6 contains the list of resources cited in the report. Appendix A contains the resumes of the RGA staff. Appendix B contains a cemetery glossary. Appendix C contains a blank PHMC cemetery survey form. Appendix D contains the existing archaeological site form for Byberry Burial Ground.

Ellen Turco, MA, Principal Senior Historian and North Carolina Branch Manager, served as the project manager, and Meagan Ratini, MA, RPA, Director of Geophysics, and Jason Harpe, MA, Director of Cemetery Conservation, conducted background research and fieldwork and served as authors of this report. Ms. Ratini conducted fieldwork, geographic information systems (GIS) analysis and produced graphics for the report. Ms. Turco, Mr. Harpe, and Ms. Ratini meet the professional qualifications standards of 36 CFR 61 set forth by the National Park Service (NPS) (Appendix A). Catherine Smyrski served as the editor and formatted the report.

Project Background

In March 2023, Preservation PA issued a Request for Qualification (RFQ) for consultants to prepare cemetery preservation plans for African American cemeteries as part of the PAACSP. These preservation plans were funded by the NTHP's African American Cultural Heritage Fund and the 1772 Foundation and administered by Preservation PA and PAHG. The Byberry Burial Ground was one of the 13 cemeteries selected by the project partners to participate in this program (Figures 1–3).

RGA responded to the RFQ for Byberry Burial Ground and was awarded a contract with the Preservation Alliance on November 6, 2023, to develop an actionable, site-specific preservation plan for Byberry Burial Ground in Philadelphia, Philadelphia County, Pennsylvania. The purpose of this project is to develop a preservation plan, which the Preservation Alliance, SPPAAA, and other cemetery stewards can use towards the long-term preservation of the Byberry Burial Ground.

On Tuesday, October 17, 2023, Jason Harpe and Meagan Ratini of RGA hosted a virtual kick-off meeting with Jennifer Robinson, Director of Preservation Services for the Preservation Alliance, and Deborah Gary and Jackie Wiggins of SPPAAA. During this kick-off meeting, the location, condition, and current preservation efforts of the cemetery were discussed, as were plans for a site visit. During this meeting, the Preservation Alliance and SPPAAA shared the progress of the Interpretation Plan being assembled by consultant Hannah Wallace and Ms. Gary (completed February 2024), current landownership issues for the property, and what other prior research had been done into the cemetery. At this meeting, a follow-up site visit was discussed that would occur with members of SPPAAA and the Preservation Alliance. Later discussions via email concluded that the most efficient on-site meeting would also include representatives from the University of Pennsylvania who are planning to conduct a ground-penetrating radar (GPR) study of the cemetery. The site visit occurred on November 2, 2023.

The Preservation Alliance and SPPAAA are working with the City of Philadelphia and the Pennsylvania Department of Conservation and Natural Resources (DCNR) to resolve ownership

issues after a 1980 deed transferring the cemetery from the Byberry Friends Meeting to the City of Philadelphia went unrecorded. It is the hope of SPPAAA and the Preservation Alliance that, given the burial ground's proximity to Benjamin Rush State Park, the state will be able to assume ownership of the cemetery in perpetuity. In 1993, a Phase II archaeological study was conducted in order to provide a buffer zone around the cemetery to protect it during construction of the federal building constructed on the adjacent property (Louis Berger & Associates 1993). In 2014, the cemetery was initially nominated to the Philadelphia Register of Historic Places (Menkevich 2015). It was added to the register in 2015.

The stewards of Byberry Burial Ground stated the following goals in their application for this program, as well examples of past work undertaken by the stewards:

“It appears that after the burial ground was sold by Byberry Friends Meeting to the City of Philadelphia in 1980 (although the deed is missing), there has been no active steward of the property. Under the direction of the Preservation Alliance of Greater Philadelphia (PAGP) and The Society to Preserve Philadelphia African American Assets (SPPAAA), five stewards of The Byberry Township African American Burial Ground are currently facilitating positive public and private dialogues to develop a formal plan for site landscaping, wayfinding, and public interpretation. We are also actively working on activities that increase public awareness of this unknown site, the disturbing conditions of this burial ground and the disrespect to those interred there.

With the support of elected officials, archaeologists, dedicated citizen-scholars and local stakeholders, including: Byberry Friends Meeting, Northeast Philadelphia History Network, the current stewards of the Byberry Township African American Burial Ground have conducted title research, hosted public dialogues, sought out burial records and archaeological research on the burial ground.

Currently, we are 72% complete with a public survey. The “Byberry Township African American Burial Ground Project Survey” is a public frontline survey that asks participants 10 questions to understand their opinions on the past, present and future possibility of memorializing the burial ground.

The long-term goal of our stewardship is to achieve an outcome that provides a dignified and recognizable burial ground, identification of how many are interred and their identities, if possible, and a permanent plan for oversight and sustainment.”

Methodology

RGA staff began the project by gathering background and historical information on the Byberry Burial Ground. Jennifer Robinson shared with Jason Harpe and Meagan Ratini copies of existing historical research on the cemetery.

In 2018, the PA SHPO, in partnership with PAHG, received funding from the NPS for Shelby Splain's Multiple Property Documentation Form (MPDF) titled *African American Churches and Cemeteries in Pennsylvania, c. 1644–1970*. This context study was written and submitted to the NPS in 2018 and published by NPS in 2021. This context study is a valuable research tool that includes terminology and concepts that contribute to defining the Byberry Burial Ground as an African American

Graveyard in the broader context of Pennsylvania’s African American churches and cemeteries. Splain defined Graveyards as:

“A graveyard is an area of land reserved for the burying of dead people that is historically and functionally related to a church or place of worship. Graveyards are typically found on land owned by the congregation, part of the church property, and adjacent to the church building; in some cases, the graveyard may be near, but not adjacent to, the church building. In some cases, particularly in urban areas, a church may survive and the churchyard, including the graveyard, has been lost, and vice versa; the graves and stones may have been moved together, separately, or not at all and still exist below neighboring properties. When graveyards survive, they should be considered and evaluated as part of the church property and not independently (Splain 2018:7–8).

In the preparation of this preservation plan, RGA staff used preservation planning strategies and instructional material available on the NPS website, as well as adding new creative strategies that are applicable to Byberry Burial Ground. RGA followed the broad requirements of the Secretary of the Interior’s *Standards for Rehabilitation* and NPS’s *Preservation Brief 48: Preserving Gravemarkers in Historic Cemeteries*, which is considered the industry standard. *Preservation Brief 48* addresses each aspect of cemetery preservation and provides baseline guidance that must always be followed for any project involving cemeteries. Additionally, RGA consulted the Chicora Foundation Inc.’s *Recording Historic Cemeteries: A Guide for Historical Societies and Genealogists* and *Grave Matters: The Preservation of African-American Cemeteries*, and Lynette Strangstad’s *A Graveyard Preservation Primer*.

There are myriad resources on cemetery preservation and planning written by conservators, historic preservationists, landscape architects, and arborists available online. States such as Alabama, Illinois, and Texas, and Prince Georges County, Maryland, have published historic cemetery preservation guides, but the *Historic Cemeteries Preservation Guide of Michigan* is the most thorough and detailed on the conservation of gravestones and monuments. The Massachusetts Department of Conservation and Recreation has a section titled “Guidelines for Preservation Planning” in their publication *Preservation Guidelines for Municipally Owned Historic Burial Grounds and Cemeteries*, third edition (2009). The Massachusetts guidelines “offer a compendium of information directly related to the preservation, restoration, rehabilitation, reconstruction, management and care of the Commonwealth’s municipally owned historic burial grounds and cemeteries” (Massachusetts Department of Conservation and Recreation 2009:13). RGA consults these and other cemetery preservation and conservation resources regularly.

A section of the Pennsylvania Historical and Museum Commission (PHMC) website is devoted to the preservation of historic burial grounds and cemeteries. PHMC’s website offers guidance on cemetery issues such as the developmental history of Pennsylvania cemeteries; Pennsylvania cemetery laws; tools for cemetery documentation; funerary symbolism typical of Pennsylvania; guidelines for preservation planning for historic burial grounds and cemeteries; and guidelines for the treatment of cemetery components. RGA recommends that Byberry Burial Ground’s stewards consult PHMC’s website (<http://www.phmc.state.pa.us/portal/communities/cemetery-preservation>) and use their

cemetery survey forms to document the cemetery. A copy of this form has been included as Appendix C. Instructions for this form are available on the PHMC website.¹

Specific to this cemetery, RGA also consulted the Interpretive Plan developed by SPPAAA and the Preservation Alliance (Gary and Wallace 2024), the cemetery's nomination to the Philadelphia Register of Historic Places (Menkevich 2015), and the archaeological site record maintained by the PHMC (Appendix D).

Fieldwork

RGA strategically planned Meagan Ratini's meeting with the stewards of Byberry Burial Ground to maximize the project's limited budget and timeline. RGA coordinated with SPPAAA, the Preservation Alliance, and the University of Pennsylvania in order to conduct one combined site visit related to both the preservation plan and the non-invasive archaeological investigations planned by the University of Pennsylvania.

The site visit occurred on Thursday, November 2, 2023. Ms. Gary of SPPAAA and Ms. Robinson of the Preservation Alliance provided information about the history of the site; their efforts to preserve the cemetery; and discussed future avenues for research, interpretation, and commemoration of the cemetery. At this meeting it was mutually determined that this preservation plan would be completed after the interpretive plan, which was already in production, so as to provide the most benefit for the cemetery. The non-invasive surveys were likewise planned to follow these reports in order to draw on as much information as possible for interpretation.

The exact boundaries of the cemetery were unclear in the field due to a lack of obvious landscape features indicating its location. Since most maps indicate the cemetery parcel to the east of the intersection of three former roadways, this location is generally considered the heart of the cemetery and was treated as such during the field visit (Figure 2). This area has received multiple clearing efforts by SPPAAA since 2022.

During the site visit, Ms. Ratini photographed the setting of the cemetery as well as key and representative aspects of the landscape. She also collected GPS points on relevant landscape elements for later comparison with mapping via a GIS. Some areas were impassable due to vegetation, but efforts were made to investigate around these obstacles.

¹ Note that the instructions and form reference CRGIS. This system was replaced in 2021 by PA-SHARE. The new informational email address as of the writing of this plan is pashare@pa.gov.



Figure 2. Panoramic view of cleared area within cemetery (view to northeast from intersection, left, to National Archives and Records Administration (NARA) building, right)

2.0 Physical Description and Brief History of Byberry Township African American Burial Ground

Physical Description

Byberry Burial Ground is located in a wooded area at the historic intersection of Old Townsend Road, Burling Avenue, and Meeting House Road in the Parkwood section of Northeast Philadelphia (Figure 3 and Figure 4; see Figure 1). These roads were once paved but have not been maintained for vehicle traffic. Legally, the parcel's address is "rear of 14700 Townsend Rd," although this does not truly identify the location as it is not part of the parcel for 14700 Townsend Road and the section of Townsend Road, which once led to the cemetery, has been rerouted into an industrial park. The City of Philadelphia's online parcel viewer (<https://property.phila.gov/>) omits the location of the cemetery. Photographs included in this section were all taken November 2, 2023 by Meagan Ratini during the site visit.

The cemetery is most readily approached from Burling Avenue, which has been maintained as a walking path as part of Benjamin Rush State Park (Figure 5–Figure 8). SPPAAA has installed a real estate-style sign indicating the presence of the cemetery for walkers in the park. Earthmoving related to road maintenance efforts along the three roads to the west of the cemetery have resulted in a cut to the original landform of 3 to 5 feet in height, noted as early as the 1993 Louis Berger & Associates report. The cemetery is believed to be located in the wooded area above the 3 to 5-foot-high cutbank and is therefore slightly elevated above its immediate surroundings on the western side. Push piles, architectural debris (Figure 9), and dump sites (Figure 10) line the cutbank. Historic aerial photography dating back to 1938 as well as photos in the 1993 report suggest that the forest growth in this area has primarily happened in the past thirty years (Louis Berger & Associates 1993; USDA FSA 1938, 1950, 1971).

A relative clearing in the middle of the property could indicate the area that was open and investigated in 1993 during the Phase II archaeological survey (Louis Berger & Associates 1993) or is simply where the cemetery stewards have managed to clear thus far. The clearing's location at the intersection of the roads strongly suggests that it is the location of the cemetery based on the best available historic mapping. The clearing process has been ongoing on a regular basis since 2022 due to the dense vegetation and amount of natural and human-made debris that has built up in the area of the cemetery. While the cemetery stewards have conducted several cleanups, some potentially heavy and hard-to-move debris remains among the high weeds.

The interior of the cemetery parcel has mature trees, saplings, vines, and tall weedy growth throughout (Figure 11). Fallen logs and vegetative debris are also found throughout the cemetery. Some portions of the vicinity of the cemetery are impassable, although during the field visit, it was difficult to tell the exact location of the property boundaries (Figure 12). There are signs of modern intrusion in the landscape, such as surficial and semi-buried debris and utility-related features. The apparent depth of some of the debris in the soil may indicate at least superficial ground disturbance in some areas of the cemetery (Figure 13). A potential environmental monitoring well was also identified within the vicinity of the cemetery (Figure 14). A defunct electrical utility was identified above the cutbank in the southwest of the area along Townsend Road (Figure 15). This utility may be outside the boundary of

the cemetery, but some maps indicate a utility easement may cross the property boundary in the southwest (Menkevich 2015:4–7).

The cemetery contains no visible grave markers or depressions indicating graves. Historical documentation has yielded the name of one man, Jim Walton, whose unmarked grave is likely within the bounds of the Byberry Burial Ground. Historical documents suggest additional burials (Louis Berger & Associates 1993:6).

Byberry Burial Ground Preservation Plan

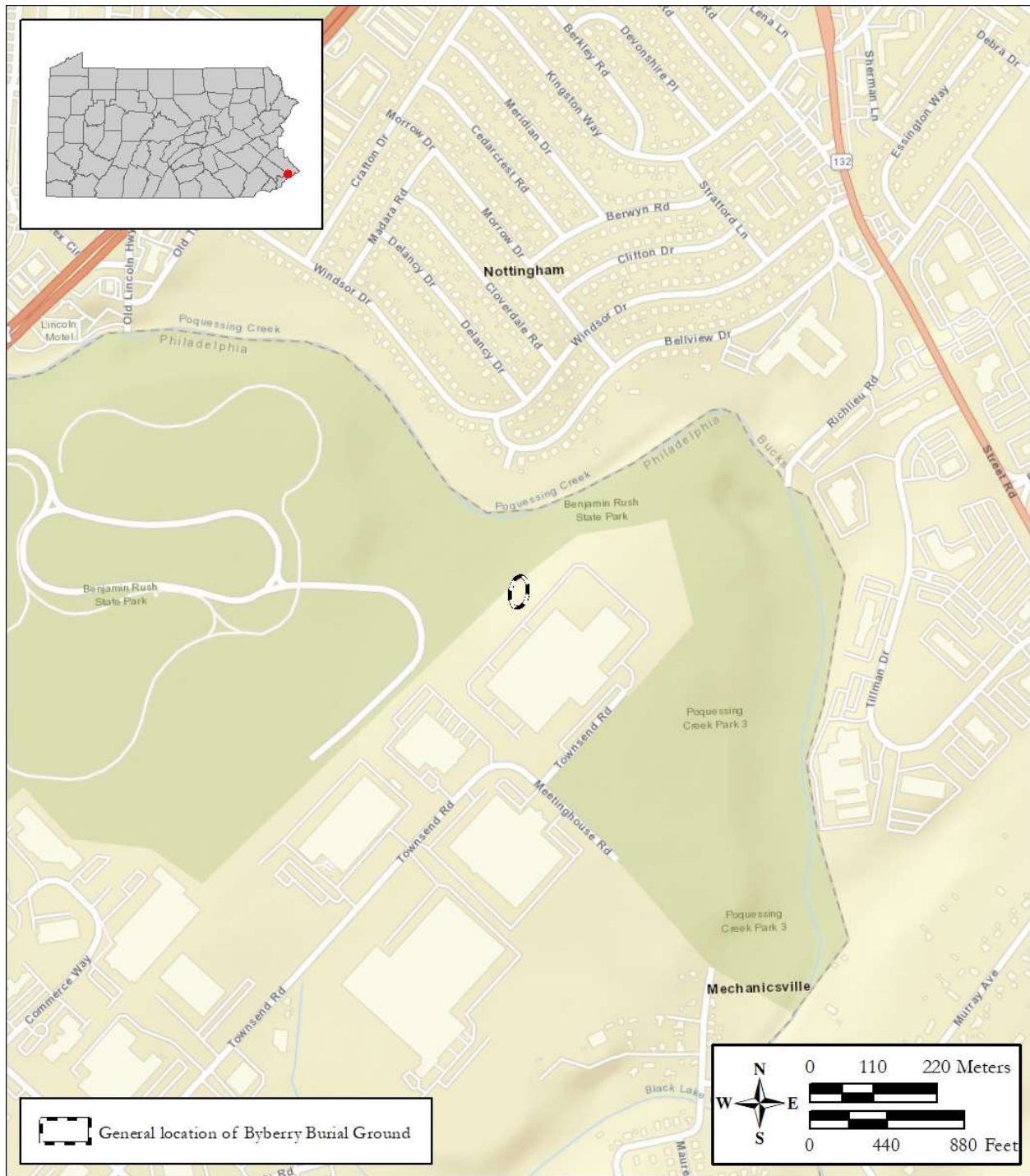


Figure 3. Approximate location of Byberry Burial Ground on ESRI street map (2024)



Figure 4. Approximate location of Byberry Burial Ground relative to historic streets, shown on a 2018 aerial photograph (City of Philadelphia 2018).



Figure 5. Approach to Byberry Burial Ground from the west along the former Burling Avenue



Figure 6. View from Byberry Burial Ground west down Burling Avenue

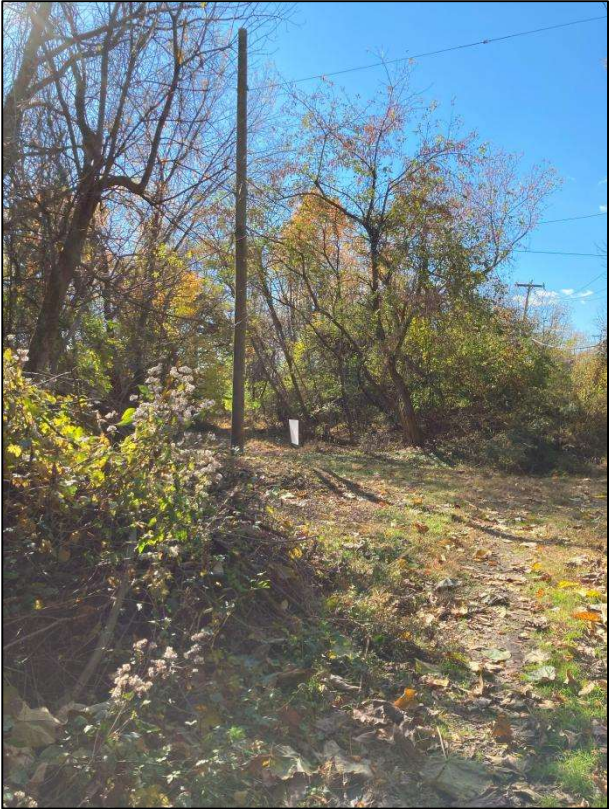


Figure 7. Approach to Byberry Burial Ground from the former Meeting House Road (facing southwest)



Figure 8. View southwest along the former Townsend Road. The cemetery is located above the cutbank to the left of the image.



Figure 9. Detail of cutbank with architectural debris in the vicinity of Byberry Burial Ground (view to east).



Figure 10. Signs of dumping along Townsend Road, view to east. This location is potentially slightly south of the cemetery parcel.



Figure 11. Interior of Byberry Burial Ground, view to east



Figure 12. View to northeast of Byberry Burial Ground clearing, showing impassable scrub vegetation



Figure 13. Semi-buried stone debris within the cemetery (notebook for scale)



Figure 14. Potential monitoring well encountered within the vicinity of the cemetery, with notebook for scale (View to south).



Figure 15. Detail of defunct electrical utility along Townsend Road (facing southwest). Notebook included for scale.

One potential modern property boundary was identified in the field in Townsend Road. It is unclear what the origin of this stake may be or whether it is relevant to the cemetery (Figure 16). If this is a property boundary, this may suggest that part of the original landform containing the cemetery may have been cut away during roadwork. This is unclear, however, as deeds suggest Townsend Road was originally cut prior to the establishment of the cemetery. When a road is initially paved and during maintenance of them thereafter, it is common for the road to be widened. In an area constricted by the landforms around it, it is common for these landforms to be cut and removed so that the road is a standard width. Paving would have occurred later in the nineteenth or twentieth centuries, as may have later regrading efforts. Later road maintenance efforts may have continued to cut into the landforms surrounding the road, forming the cutbank we see today. Due to the relative steepness and lack of vegetation on the cutbank, there are some areas of apparent erosion (Figure 17).

Throughout the cemetery, the view is relatively clear to the National Archives and Records Administration (NARA) building beyond, separated from the wooded area by a pathway, swale and fence (Figure 18 and Figure 19).

During the site visit, Ms. Ratini conducted a cursory pedestrian inspection of areas outside of the known cemetery to better understand its physical context on the landscape. Where Townsend Road has been rerouted around the NARA building and industrial park, it now comes to a dead end to the south of the property, where the path is partially blocked by large architectural debris (Figure 20). The paved road is still visible and passable on foot as far as it extends towards the fenced industrial park.

Burling Road and Townsend Road are lined by berms approximately 5 to 10 feet high (see Figure 6). These are of unclear origin but show similar evidence of dumping. The berm on the south side of Burling Avenue is of particular note for its overgrowth of invasive Japanese knotweed. Among the debris to the north of Burling Avenue, a curved stone fragment was noted for its similarity to a grave marker (Figure 21). It is unclear if this represents a part of a formal grave marker or is a piece of an architectural ornament. The origin is in doubt due to the high amount of architectural debris and other refuse found around the cemetery. If it is, in fact, a piece of a grave marker, it is unknown whether it is related to the Byberry Burial Ground or if it has been removed from a cemetery elsewhere. A GPS point was taken on this artifact for future reference (Figure 22).

Within the cemetery itself, a large piece of slate was also identified as potentially related to a grave marker but further investigation determined this was most likely a modern paver stone and unrelated to memorialization or, indeed, the cemetery itself (Figure 23).



Figure 16. Potential modern property boundary, facing northeast. Pencil for scale.



Figure 17. Detail of erosion on cutbank, revealing subsoil



Figure 18. Panorama from within Byberry Burial Ground, facing southeast towards NARA building (background).



Figure 19. From left to right: utility pole, path, vegetated swale, fence, and NARA building (facing northeast)

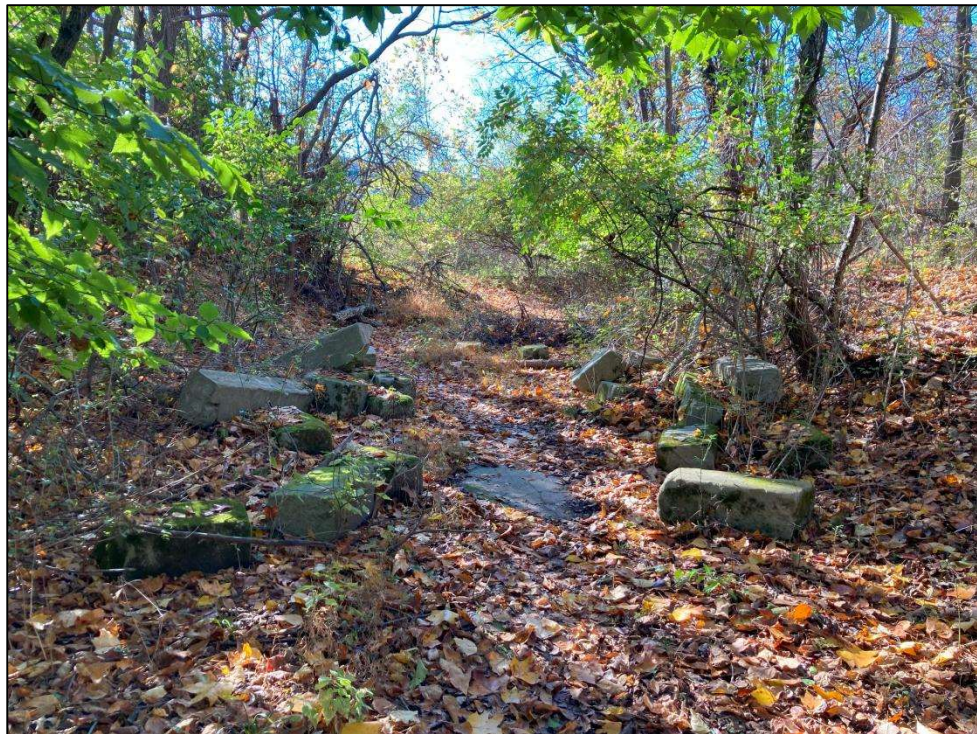


Figure 20. "Dead end" of Townsend Road, facing southwest



Figure 21. Detail of curved stone fragment found to the north of Burling Avenue

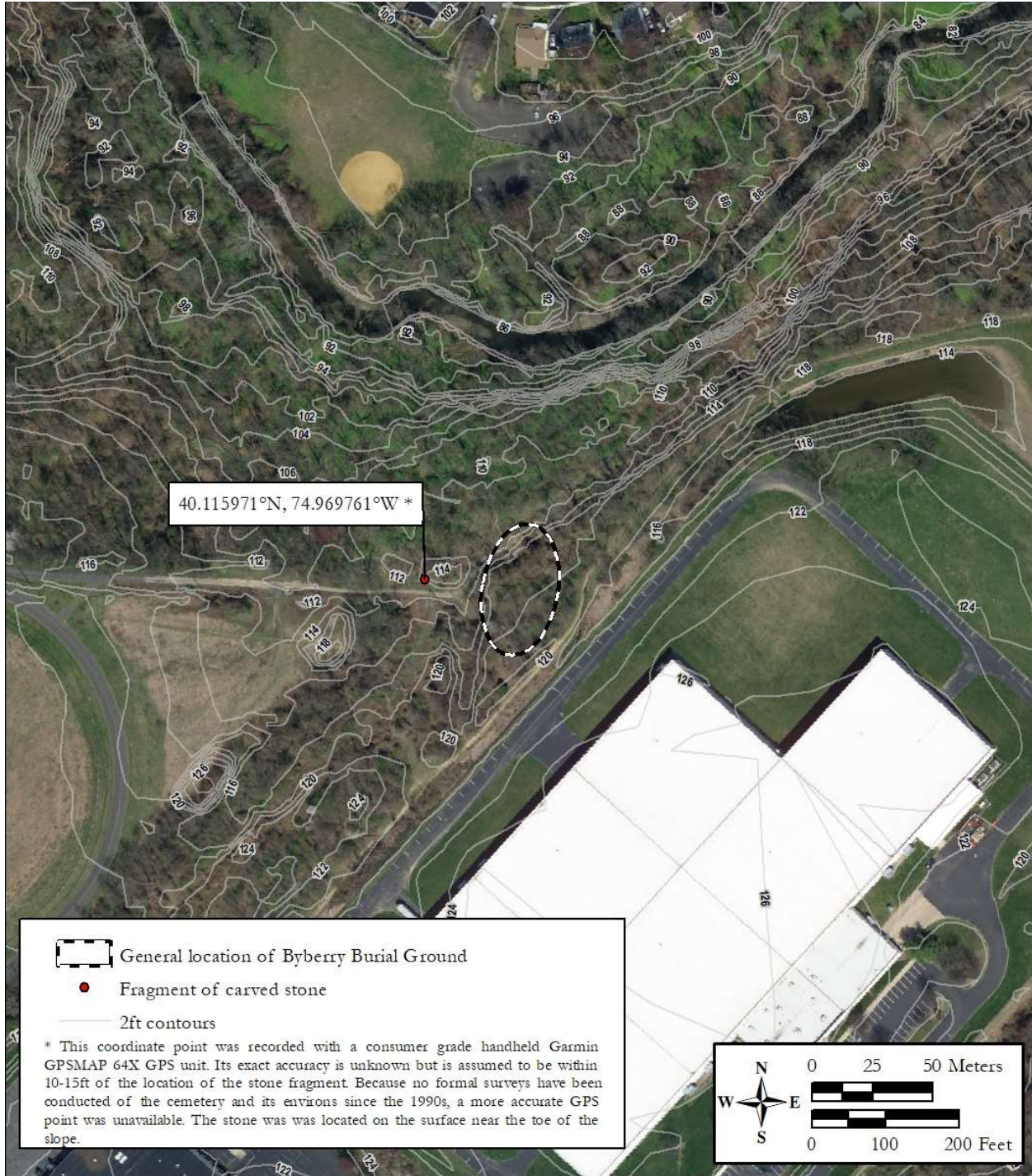


Figure 22. Map of location of curved stone fragment relative to Byberry Burial Ground, including 2ft contours that show topographic variation in the vicinity of the cemetery (City of Philadelphia 2018; DCNR 2008).



Figure 23. Slate paver stone in situ at the edge of the Byberry Burial Ground lot, view to west. Notebook for scale.

Brief History of Byberry Township African American Burial Ground

The following brief history is summarized and abstracted from the Byberry Township African American Burial Ground Interpretation Plan (Gary and Wallace 2024), the most current nomination to the Philadelphia Register of Historic Places (Menkevich 2015), and research conducted for a Phase II archaeological investigation in 1993 (Louis Berger & Associates 1993).

Byberry Township's earliest European settlement was in 1682 by English members of the Society of Friends (Quakers) (Louis Berger & Associates 1993:3). The first Friends meeting house was constructed in 1694 and was replaced by the current stone edifice in 1808 (Byberry Quaker Meeting 2024a, *ibid.* 2024c). The majority of Byberry Township residents in the eighteenth and early nineteenth century were members of the Byberry Meeting (Byberry Quaker Meeting 2024a). The earliest records of enslaved African Americans in Byberry Township date to 1720, but pressure within the Friends community led to most Friends freeing their enslaved workers by the time the Act for Gradual Abolition was passed in 1780 (Louis Berger & Associates 1993:3–5).

While the meeting house had a burial ground for its members, in 1780, the Friends established a secondary burial ground approximately 1 mile to the northeast to be used for African American members of the community, many of whom were enslaved. This small plot (approximately 330 square feet) located to the east of the historic intersection of Old Townsend Road, Burling Avenue, and Meeting House Road, was purchased by the Friends on January 17, 1780, from Thomas Townsend and called The Burying Place For All Free Negroes or People of Color within Byberry (Menkevich 2015; Byberry Quaker Meeting 2024b; Gary and Wallace 2024). At the time of the establishment of this cemetery, Byberry Township had only three people remaining in a state of enslavement (Louis Berger & Associates 1993:5). Knowing that at least two locations within the township had unmarked burials of enslaved individuals, the Friends were concerned about the “haphazard nature” of the burials of African Americans and sought to create what they considered to be a more suitable resting place (Louis Berger & Associates 1993:5). The Byberry Meeting appointed trustees who quickly set to fencing the property, whose boundary was only marked by stones at the corners (Louis Berger & Associates 1993:5).

Maintenance to the fence was recorded as late as 1861, but by 1872, the Friends were concerned that the cemetery was in disrepair. After confirming the cornerstones still existed, the Friends “entered into an agreement with Thornton Stackhouse, owner of the property adjoining the cemetery. Stackhouse agreed to maintain the fence along Townsend Road and keep the boundary stones in place. In return, he was given permission to remove the interior fence so that he could clear the lot and farm it” (Louis Berger & Associates 1993:5). The Meeting did not relinquish ownership at this time and retained the right to continue to allow burials (Louis Berger & Associates 1993:5–6). This agreement with Stackhouse was short-lived but resulted in major changes for the landscape of the cemetery. Aside from the removal of the fence, Stackhouse presumably cleared trees, allowing him to “plow the cemetery, leveling most of the ‘little mounds.’ By 1900, the Byberry Meeting renewed its interest in the burial ground, at which time the cemetery was reportedly ‘kept in good order’” (Louis Berger & Associates 1993:6).²

² A preliminary walkover of the property in November 2023 showed no obvious signs of the original fencing or corner boundaries nor were they noted in a 1993 archaeological survey (Louis Berger & Associates 1993); however, the exact

This property was described in deeds as late as 1906 as “forever In Trust only to and for the use, intent and purpose of a Burying Place for all free negroes or people of colour [sic] within the limits of Byberry particular meeting of Friends agreeable to the grant conditions and proviso Contained in a Certain Indenture... according to the true intent and meaning thereof and to and for no other use intent or purpose whatsoever...” (qtd. in Menkevich 2015). This same year, the property boundary was surveyed and drawn for the estate of one of the cemetery trustees (Louis Berger & Associates 1993:8; Figure 24).

The first and only known burial in the cemetery is that of Jim (Walton) in 1780, who had been enslaved by Daniel Walton. Jim Walton labored in Daniel Walton’s sawmill. Upon Daniel’s passing sometime after 1767, Jim was freed and thus passed on as a free man (Menkevich 2015; Byberry Quaker Meeting 2024b; Gary and Wallace 2024:4).

Little is known about the usage of this cemetery throughout the nineteenth and twentieth centuries or how many individuals may be interred therein. The existence of the cemetery was noted by planners during the establishment of Benjamin Rush State Park in 1976, but its location was misidentified on plans and no additional preservation efforts at the time are known (Menkevich 2015). The cemetery’s presence on the landscape through time has been noted in historical maps primarily as a trapezoidal shape.

Historical aerial imagery of the property shows its vegetation and land use changed over time. The earliest available aerial photograph dates to 1938 and shows the area of the cemetery under cultivation (Figure 25). An examination of aerials from 1950 (Figure 26) and 1971 (Figure 27) and an infrared aerial photograph from 1983 (Figure 28) show that the field edge regrew in the later part of the 20th century. There are no signs visible in this imagery of any kind of fence or border around the cemetery’s eastern and southern sides.

In 1980, the Byberry Friends Meeting sold the property to the City of Philadelphia for \$3,000, but the property transfer went unrecorded, “thus leading to a break in stewardship for 43 years” (Gary and Wallace 2024:5).

Due to planned construction of the NARA facility on the parcel to the east of the cemetery, federal law required the investigation of the area of the cemetery by qualified archaeologists. This began in 1988 with a preliminary background investigation by John Milner Associates, Inc., who identified the location of the cemetery in historical documents.³

A follow-up Phase II level archaeological survey was conducted by Louis Berger & Associates in 1993 (Figure 29; Figure 30; Figure 31). This included deeper background research. The archaeologists also stripped the topsoil of an area outside the cemetery in order to determine the limits of the cemetery prior to construction. No physical investigations happened within the bounds of the cemetery, but the archaeologists determined a buffer area around the cemetery boundary in order to protect it from proposed construction on the parcel to the east. This survey noted a cutbank on the western side of

boundary of the cemetery parcel is undetermined. Vegetation may have obscured subtle signs of these landscape features. A formal survey is planned to be completed in March 2024, which may help identify the original locations of these landscape elements, but they were not noted during the Phase II archaeological survey.

³ This report may be on file with the General Services Administration (GSA) or NARA but is not on file with the PHMC and was unable to be otherwise located during the assembly of this plan.

the cemetery along the roads. It also noted building debris, which had been left along the slope. During the survey, archaeologists tested a buffer area 75–150 feet outside of the cemetery boundaries and found no evidence of burials. The report recommended maintaining a fenced 80-foot buffer of the cemetery for the future construction of the building (Louis Berger & Associates 1993; Figure 32).

Because of these investigations, the cemetery was designated with an archaeological site number by the PHMC. This trinomial number (36PH0092)—broken down by state (36), county (PH), and site (0092)—identifies the cemetery in state records for consideration during future planning efforts requiring state or federal historic preservation approval.

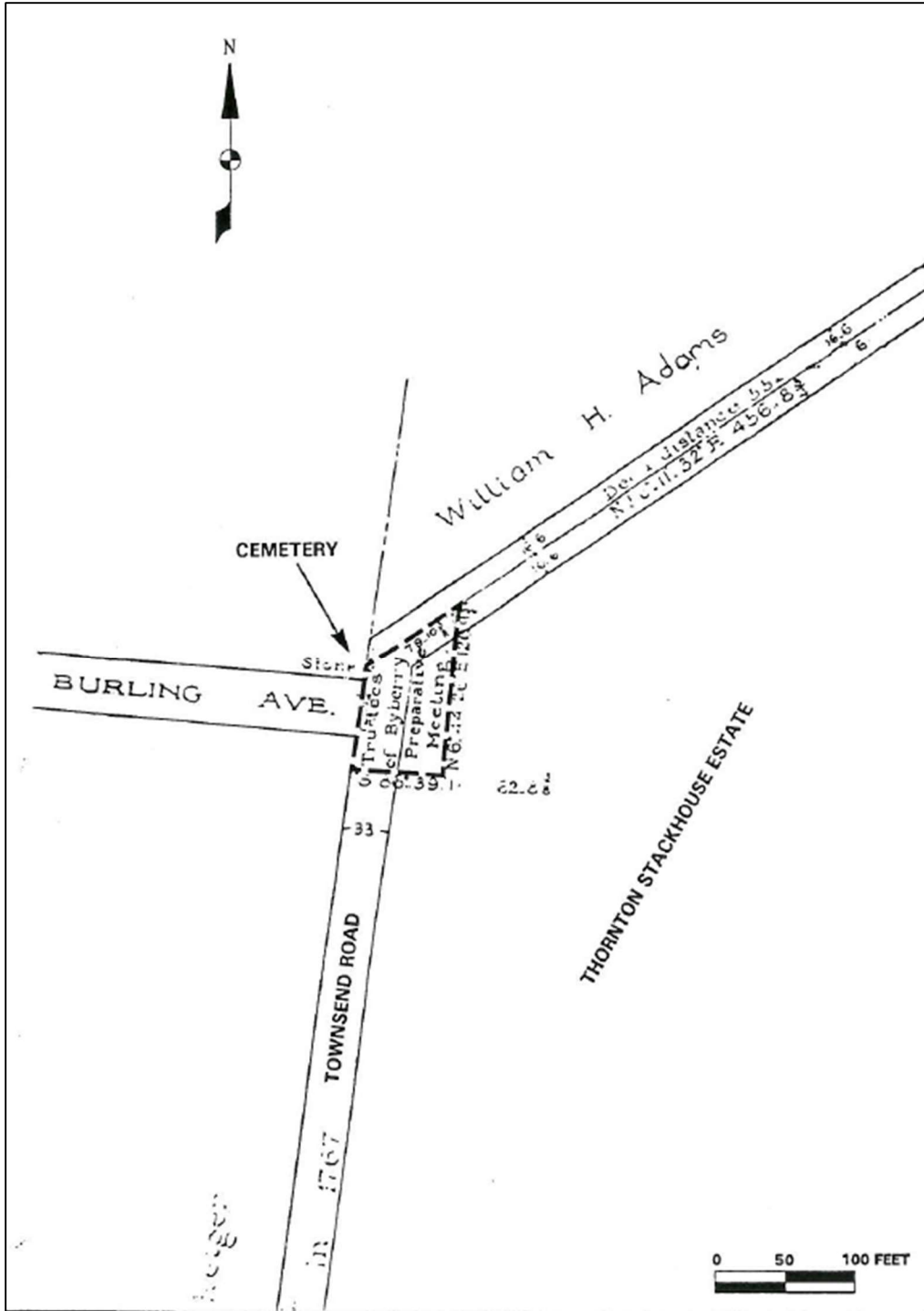


Figure 24. The 1906 property plan as reproduced in Menkevich (2015:7). The cemetery is delineated by a dashed line.

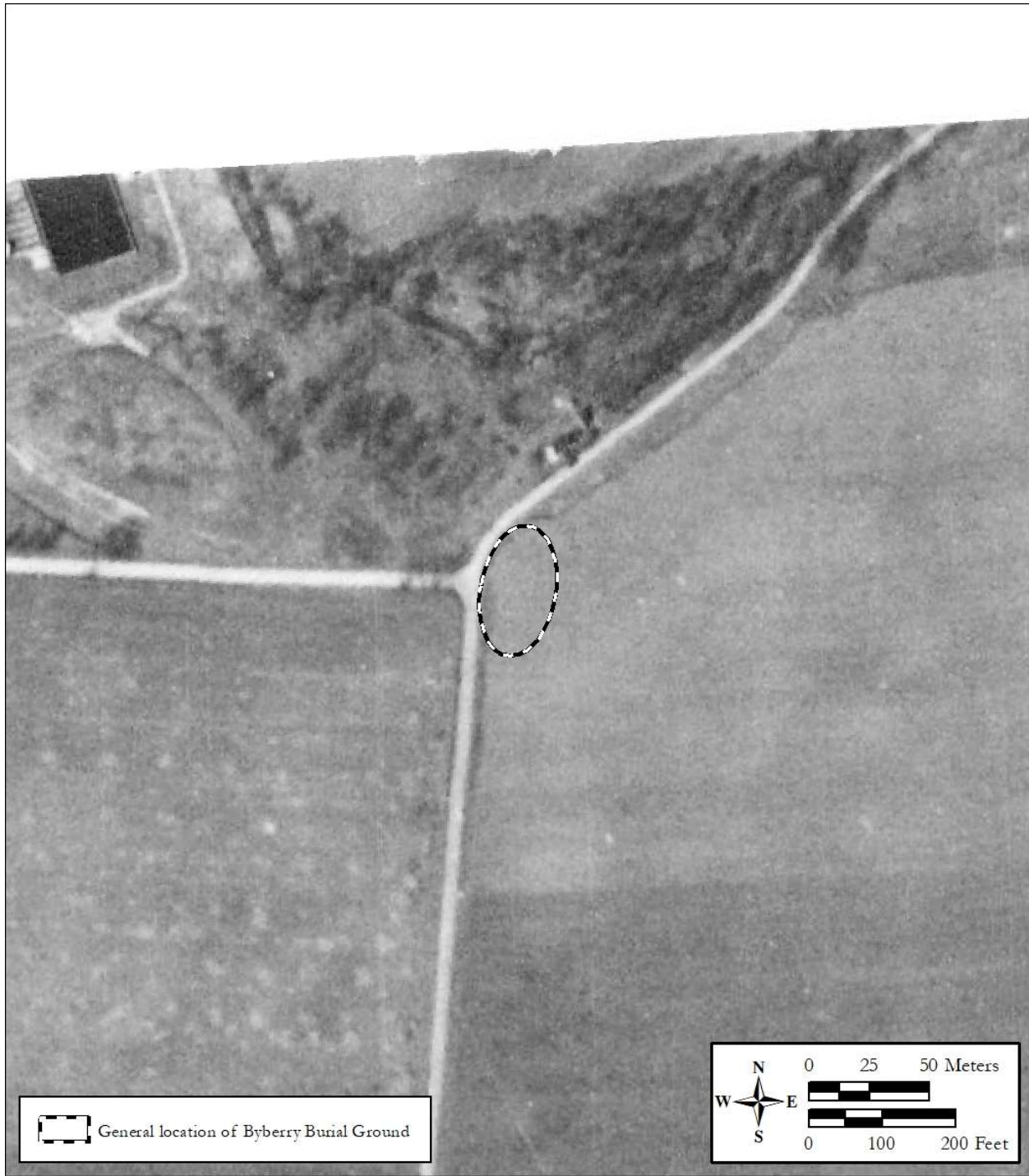


Figure 25. Approximate location of Byberry Burial Ground on 1938 Aerial (USDA FSA 1938)

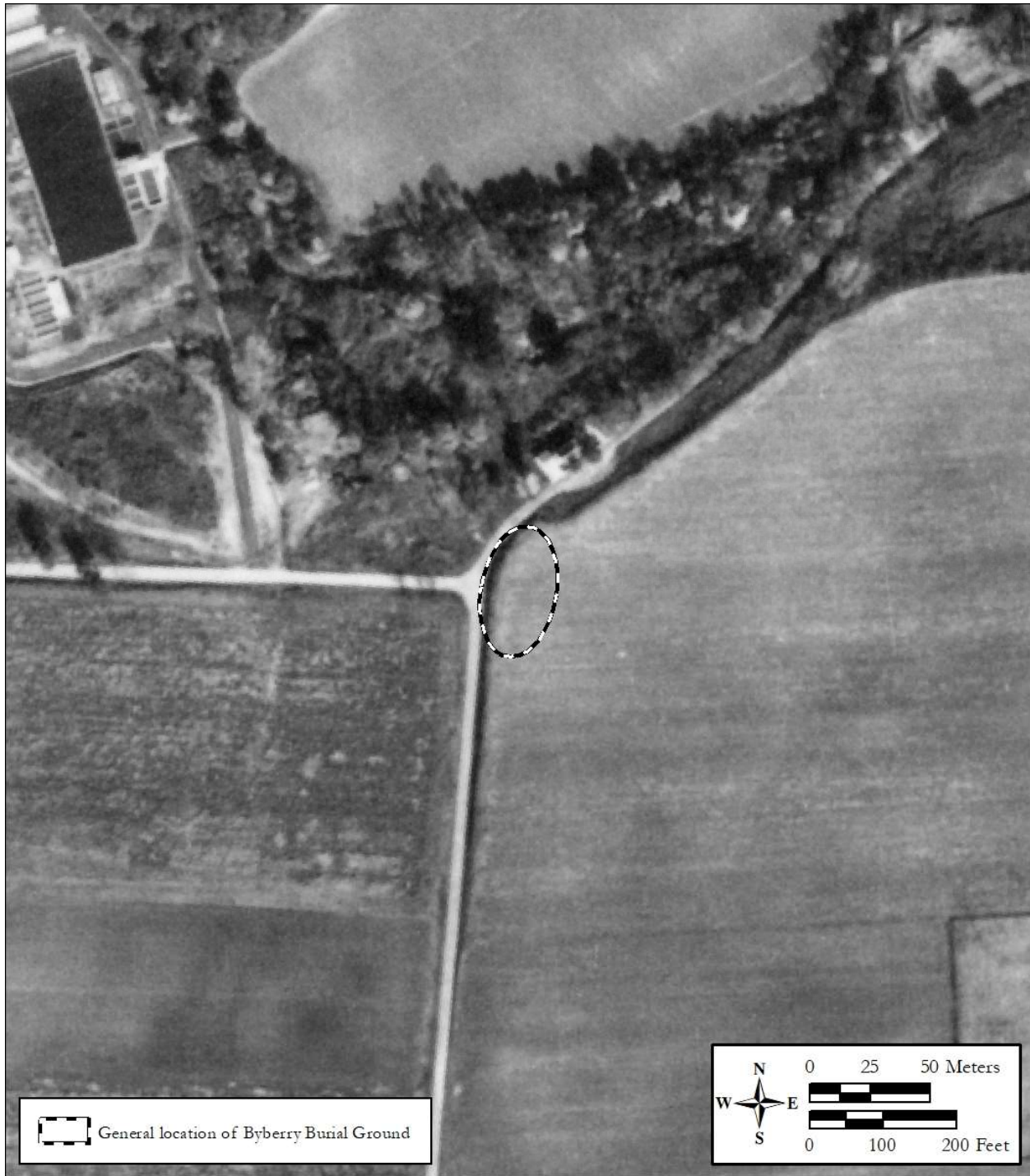


Figure 26. Approximate location of Byberry Burial Ground on 1950 aerial (USDA FSA 1950)

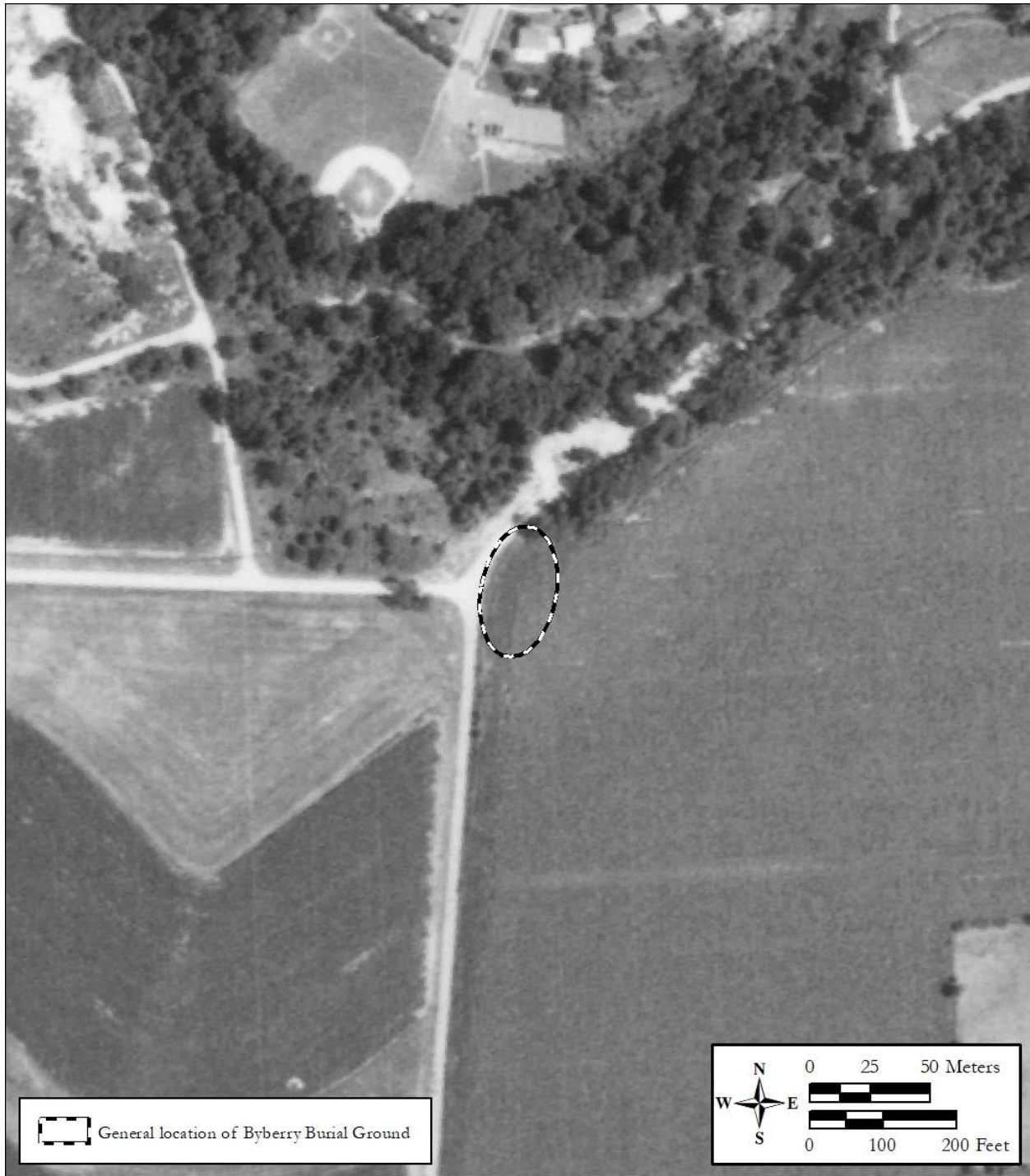


Figure 27. Approximate location of Byberry Burial Ground on 1971 aerial (USDA FSA 1971)



Figure 28. Approximate location of Byberry Burial Ground on 1983 aerial infrared photograph (USDA 1983)

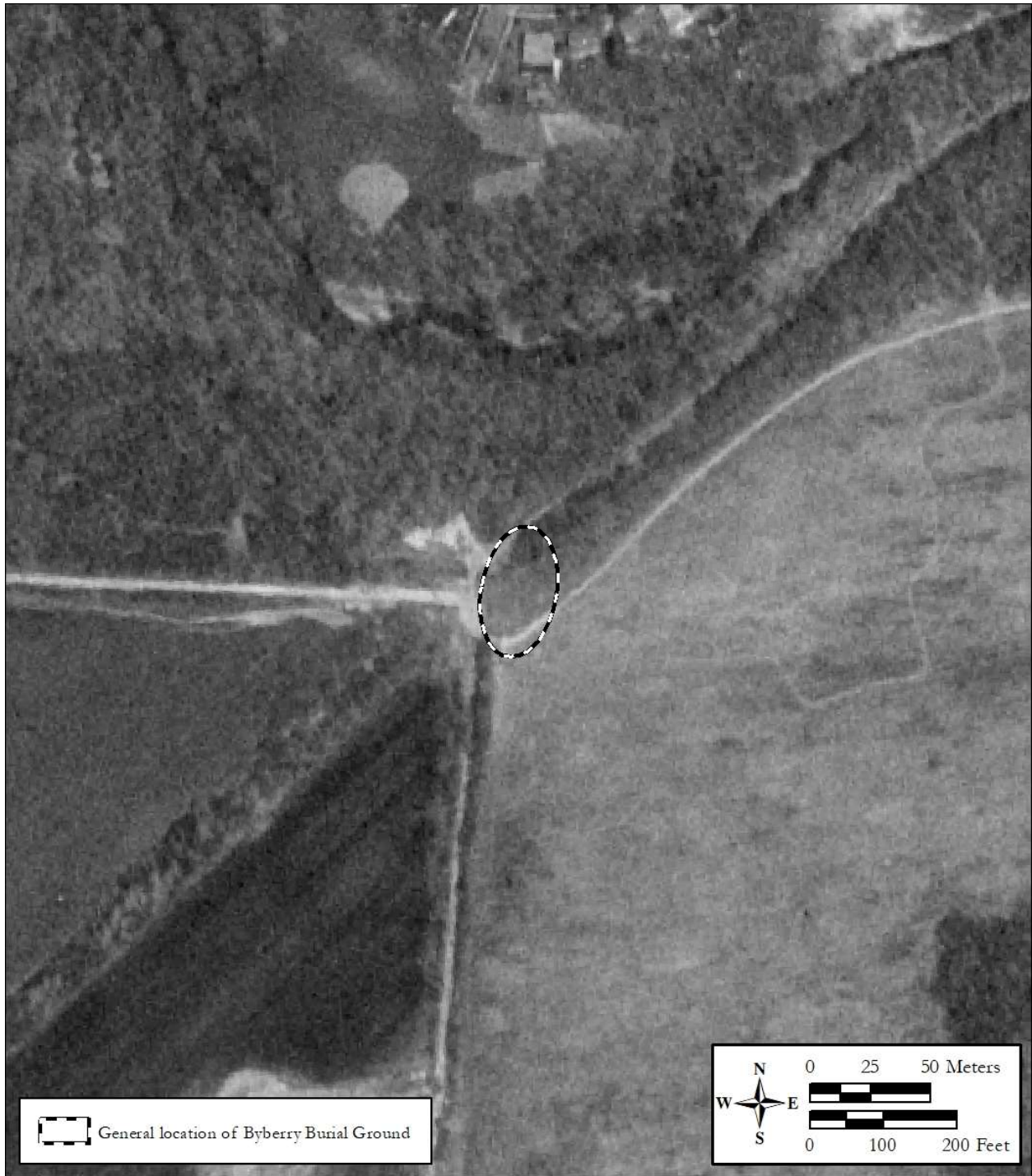


Figure 29. Approximate location of Byberry Burial Ground on 1993 aerial (USGS 1993)

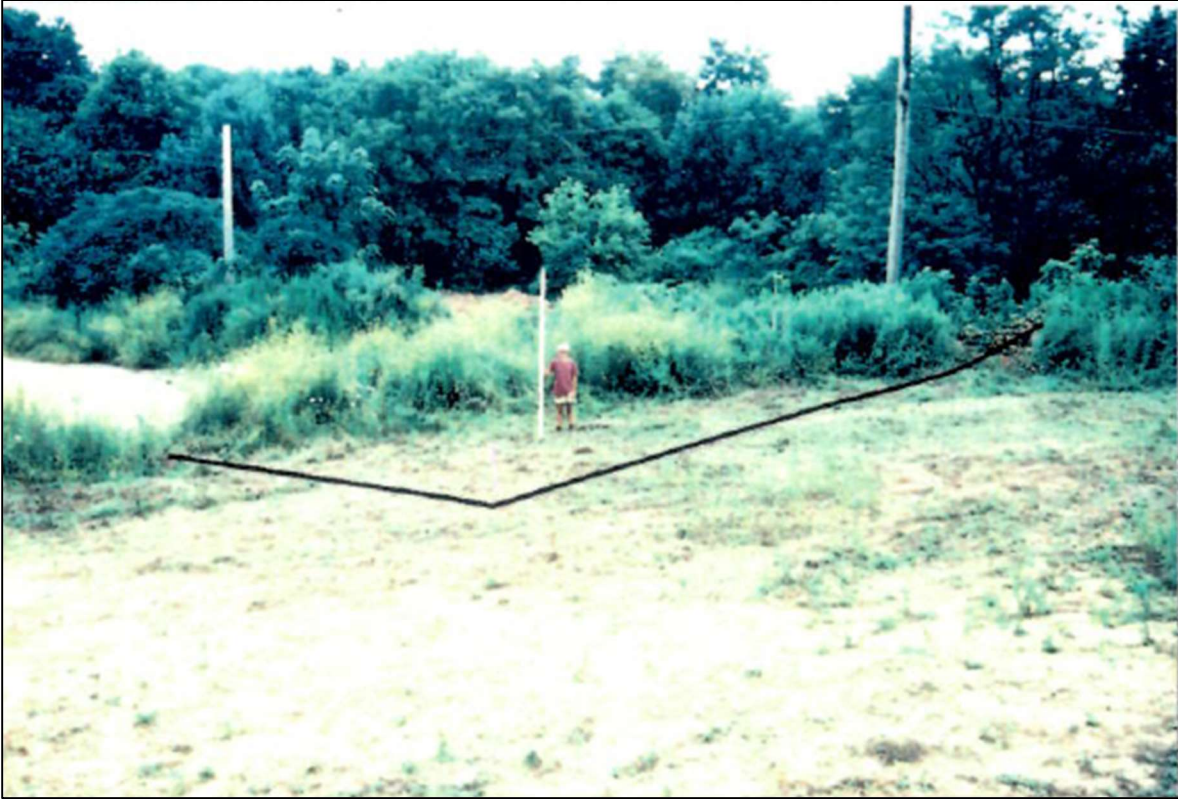


Figure 30. View of the cemetery (outlined in black) facing northeast in 1993 (Louis Berger & Associates 1993:10).

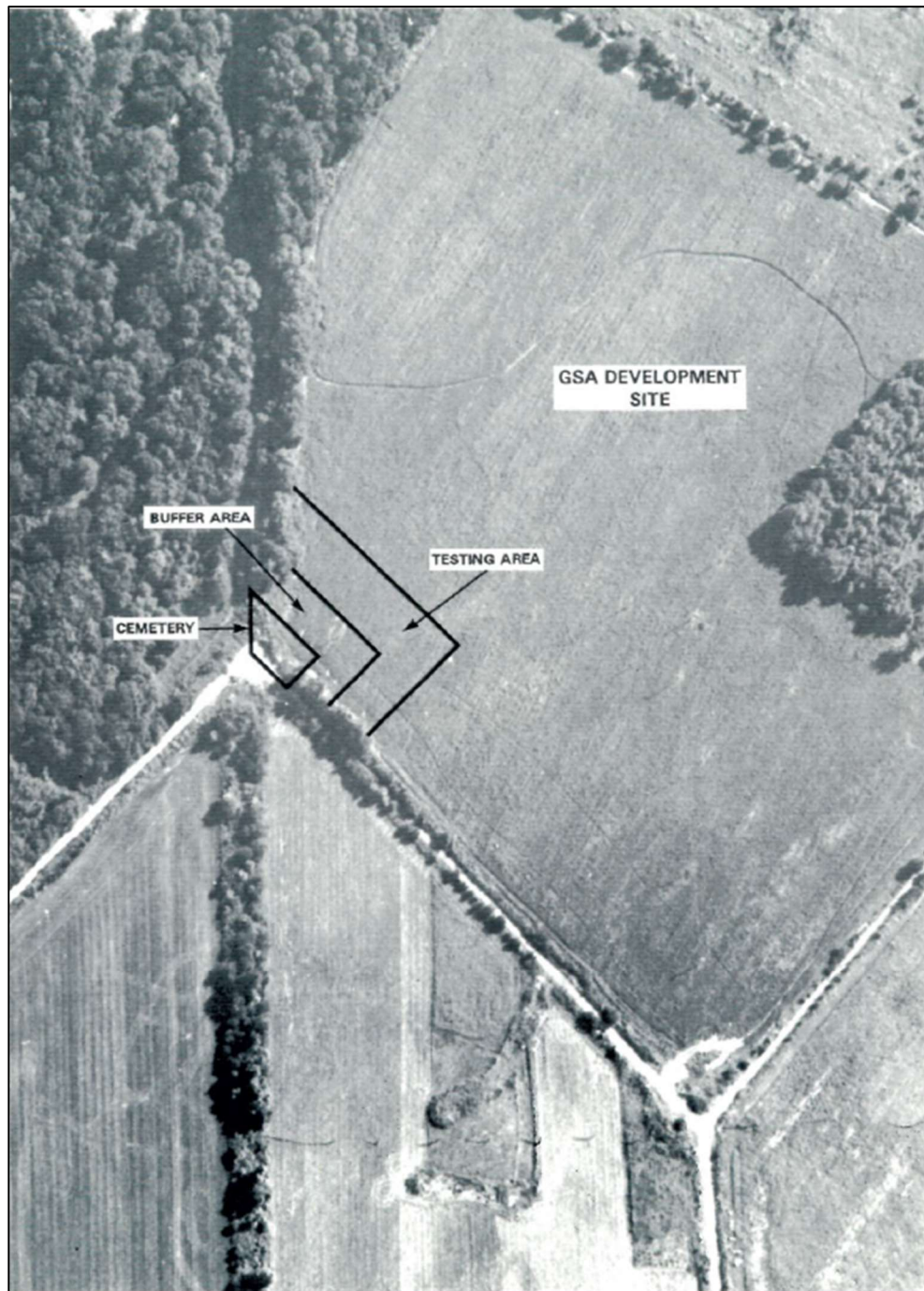


Figure 31. Aerial view of the 1993 investigations at the time of the study (Louis Berger & Associates 1993:9).

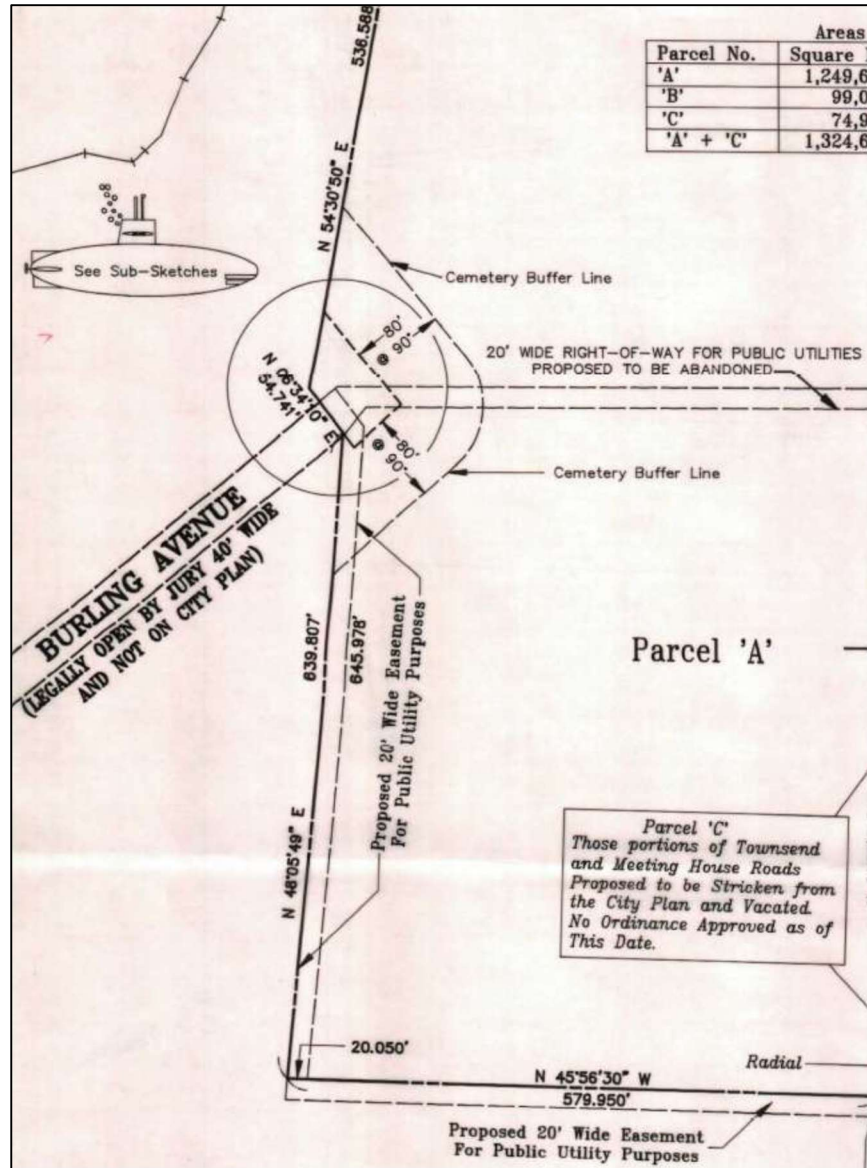


Figure 32. Final mapped cemetery buffer as shown in a 1994 survey (reproduced in Menkevich 2015:n.p.)

Recent History

Starting around 2014, efforts to recognize the Byberry Township African American Cemetery as a sacred and significant place began in earnest with an application for the site to be listed to the Philadelphia Register of Historic Places (Menkevich 2015). This listing was secured in 2015, however maintenance efforts did not follow until SPPAAA learned of the cemetery in 2022 (Gary and Wallace 2024:5).

In 2022, SPPAAA and the Preservation Alliance sponsored a title search, which confirmed the complicated ownership issues of the subject parcel. The City of Philadelphia was unaware of the ownership and the Byberry Friends Meeting is unable to maintain the property. The cemetery is presently adjacent to Benjamin Rush State Park. Therefore in November 2023, SPPAAA and the Preservation Alliance reached an agreement with the Commonwealth of Pennsylvania in order to

formally transfer ownership and perpetual care of the cemetery to the Commonwealth of Pennsylvania via the DCNR who manages the park (Gary and Wallace 2024:5). A formal survey of the property by the City of Philadelphia is planned for March 2024 and continued discussions with the Meeting, City, and DCNR are anticipated to follow. SPPAAA and the Preservation Alliance hope that this will lead to permanent stewardship of the cemetery by the state agency.

SPPAAA and the Preservation Alliance have spent the past two years on plans for memorialization and interpretation of the site, funded in part by a Henry A. Jordan Preservation Excellence grant from the NTHP. A formal interpretive plan was developed by Deborah Gary of SPPAAA and Hannah Wallace, an independent consultant, which includes brief recommendations by the Philadelphia Archaeological Forum (PAF) and the DNCR.

The Interpretation Plan recommends non-invasive studies of the burial ground to identify graves, including GPR (planned to be completed by the University of Pennsylvania in spring of 2024), infrared drone photography, magnetometry, and archaeological metal detecting. The plan also seeks to expand the memorialization at the site to encompass “any enslaved, free, and manumitted men, women, and children who are lost and forgotten in Northeast Philadelphia” (Gary and Wallace 2024:12). No lineal descendants have been identified so far connected to the cemetery, but genealogical research recommended by the interpretive plan has the potential to find them.

All interpretive elements of the site are planned to align with this overarching theme: “The heritage and culture of the ancestors lost within the Byberry Township African American Burial Ground are represented by stories of resilience, perseverance, survival, innovation and extremes” and include further background and onsite research, physical memorials and signage, public programming, vegetative borders or fencing for the cemetery, digital media components, pamphlets, and places for rest and reflection within the cemetery. The organizations generally seek to increase awareness of the cemetery among visitors to Benjamin Rush State Park and the wider public in Northeast Philadelphia, to continue research into African American history in the area as well as the story of Jim Walton, and to explore and confirm the cemetery’s place in a neighborhood that has complicated racial dynamics. The groups have laid out a timeline through 2026 for the implementation of this plan (Gary and Wallace 2024).

The plan expresses the need to prevent damage to the site, which will be discussed in more detail in Chapter 4 of this report.

3.0 Overall Assessment of Byberry Burial Ground

Byberry Burial Ground has been in the unfortunate position of having a gap in the chain of stewardship, beginning with the unrecorded land transfer in 1980 and ending with the attention of SPPAAA and the Preservation Alliance in 2022. RGA applauds SPPAAA for taking responsibility for cleaning up this burial ground, spearheading efforts to recognize it as sacred space, and for bringing in professionals in historic preservation, land management, and archaeology for advisement on paths forward.

The historical condition of the cemetery appears to have been variable even prior to 1980. While a fence was maintained around the property for at least 70 years, unknown damage occurred to the cemetery during the last quarter of the nineteenth century when it was allowed to be farmed. The Friends assumed stewardship and declared the cemetery in good repair in the year 1900. During the twentieth century, cultivation appears to have continued unabated in the vicinity of the cemetery (see Figure 25---Figure 29). A 1993 photograph (see Figure 30) suggests that in the early 1990s, the cemetery was overgrown by tall grasses and small shrubs but not by the trees that we see today.

An investigation into the boundaries of the cemetery, while not yet completed by city surveyors, suggests that the boundary has been historically difficult to pin down. Figure 33 shows some of the complexity of potential boundary locations based on recent research. Temporally close surveys by Louis Berger and Associates (1993) and the GSA (included in Menkevich 2015) identified the cemetery boundary in slightly different locations. The PHMC, presumably basing the location on those surveys, placed it in a third location.⁴ It is possible that the city's surveyors will be able to resolve this discrepancy, however the exactitude of written parcel boundaries versus how people have historically utilized a landscape do not always align. It is therefore possible that the property boundary may not represent the full extent of burials within the cemetery. This is a common situation for historical cemeteries.

All these matters complicate determining the exact condition of the cemetery. One secondary account suggests that there were "little mounds" in the cemetery prior to plowing (Louis Berger & Associates 1993:6) which probably represented multiple graves. It is unclear if any kind of historical grave marking may have once been present in the form of formal markers (such as those carved of stone or wood) or informal markers such as field stones. At present, there are no standing markers or memorials of any kind aside from the temporary signage that SPPAAA has installed.

The below-ground condition of the cemetery is likewise difficult to determine. As graves are generally found at depths of several feet below ground,⁵ the main causes for concern in terms of impacts to the burials are related to the cutbank and modern utilities. Trees growing throughout the cemetery may have impacted burials, but as they are a natural process and common to historical cemeteries, the present-day trees do not necessarily pose an existential threat to the cemetery. Care should be taken

⁴ Earlier maps were unable to be included for comparison due to limited information as to where the parcel is oriented relative to the landscape.

⁵ It should be noted that historic graves were often not excavated to the 6 feet that is the common, and usually legally required, practice for burials in the present day. Geophysical surveys routinely identify eighteenth- and nineteenth-century graves 2 to 4 feet below ground. Depths vary by soil conditions, time of year of interment, changes to the landscape after interment, and other factors.

to prevent the growth of additional saplings in order to create a more open cemetery landscape congruent with its probable historical character. Any necessary or desired removal of trees should be conducted without disturbing their root systems, which may be entangled with the remains of individuals buried in this cemetery. Tree removal may leave stumps in place, which could pose tripping hazards to visitors, so the cemetery stewards must determine a plan for the landscape that takes current and future usage of the cemetery into account.

The presence of the cutbank is a potential cause for concern if it has intruded upon the cemetery. During the field visit, RGA staff inspected exposed areas of the cutbank for signs of disturbance to grave shafts and found no clear indications that this had occurred. Some debris found within the cemetery is partially buried. It is unclear if this partial burial is from disturbance of the soils or if it is part of the natural composting process of dead vegetation on a forest floor. Limited archaeological excavation may be able to determine the answer to this question, but exploratory excavations within a cemetery are strongly discouraged. The presence of a monitoring well and electrical utility suggests there may be additional subsurface disturbances not identified during the walkover survey and confirms the need to indicate physically and legally the presence of a cemetery in this location to avoid future human impacts to the site.

Continued clean-up efforts by SPPAAA are likely to keep the vegetation in check and discourage further dumping on the site. The cemetery's position at the terminal end of Burling Avenue provides easy access from parking areas within Benjamin Rush State Park. The other paths into the area: the former Meeting House Road and a dead-end at the industrial park (the former Townsend Road) are not major thoroughfares. These three paths provide access but not smooth circulation around the cemetery. During the site visit, park visitors were observed taking these unsanctioned paths and creating an informal loop from the roads to the path between the cemetery and the swale. Increased presence of SPPAAA volunteers, events at the site, and general knowledge of the existence of the cemetery may either increase or decrease this traffic.

Byberry Burial Ground's landscape issues can be successfully addressed over time, and there are some positive things that RGA identified while conducting fieldwork. Little foot traffic means that erosion appears limited to the cutbank. Remaining debris within the cemetery is generally larger and more difficult to remove, suggesting that cleanup efforts are making progress and trash is not being introduced frequently to this site.

Maintenance activities and improvements should seek to restore and preserve the character of a rural cemetery for visitors and future generations by clearing weedy vegetation and undergrowth and judiciously installing demarcations of the cemetery. Ongoing consultation with landscape architects, arborists, archaeologists, and cemetery conservators may be necessary.

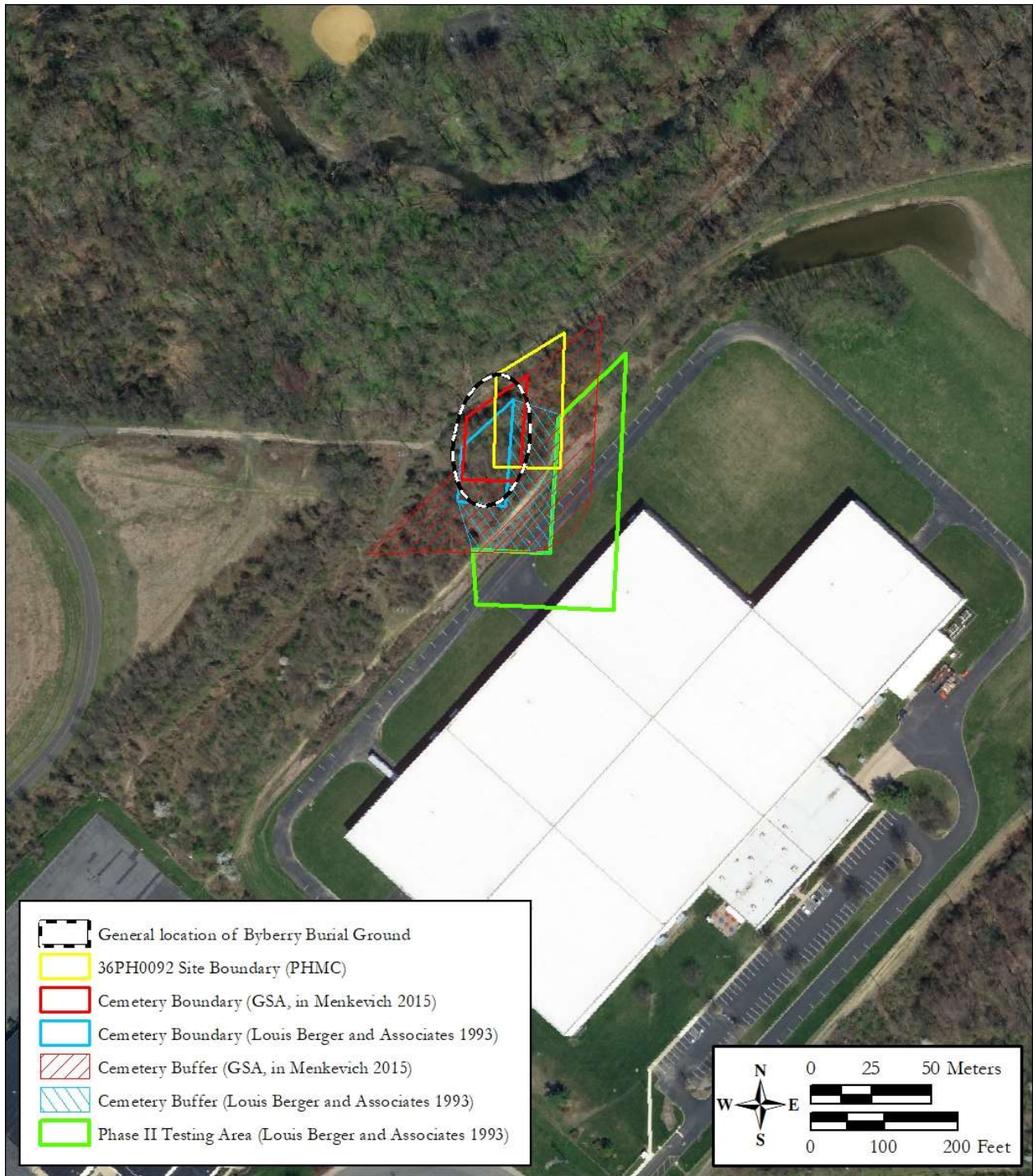


Figure 33. Approximate locations of property boundaries as understood at the time of construction of the NARA facility (City of Philadelphia 2018, Menkevich 2015, Louis Berger & Associates 1993)

4.0 Preservation Plan

In their application for this grant, SPPAAA and the Preservation Alliance outlined their current maintenance priorities:

“(1) Uprooting weeds, (2) clearing undergrowth, (3) shrubbery and (4) litter and dumping and (5) installing temporary demarcation around the perimeter of the Byberry Township African American Burial Ground. A major challenge will be to determine how the unmanaged tree growth and root structures have impacted any graves at the grounds”

Removal of unwanted undergrowth, invasive weeds, refuse, and preventing the continued use of this area as a dumping ground are important to the preservation of this cemetery. A temporary demarcation of the cemetery, based upon on-site survey data from the city, would also assist in this regard. Management of trees on site will be important for the long-term preservation of the cemetery.

RGA will discuss these and some additional aspects of site preservation below.

Recordation of the Cemetery

Parcel Boundary Survey

The survey of the cemetery’s property boundaries by Philadelphia city surveyors, planned to happen in the spring of 2024, will help to determine the historic extent of the cemetery. It is important to note, however, that legal boundaries may or may not have been historically visible on the landscape and the cemetery may be larger, smaller, or offset from the parcel boundary. The 1993 archaeological survey identified no graves from 75 to 150 feet from the bounds of the cemetery, as the authors understood them (Louis Berger & Associates 1993). The 1993 investigation did not occur within 75 feet of the cemetery, and therefore, it is unknown how many burials are located within the cemetery and whether burials are confined to the legal boundaries. There are numerous cases of historic cemeteries where the understanding of property boundaries changed over time and burials that are part of a cemetery fall outside of its bounds. Since there are no extant landscape clues, the property boundary survey results will be the guiding force behind the management of the cemetery.

Once the City performs this survey, the exact location of the cemetery parcel will be demarcated, and it should be possible to determine roughly what areas Louis Berger & Associates have already checked for burials. It is RGA’s understanding that the temporary buffer Louis Berger & Associates established was in effect only during the construction of the NARA facility, and any future state or federal construction near the cemetery would need further assessment by the PHMC. This 75-foot buffer area was not checked for burials by the archaeologists at the time.

During the site visit in November 2023, the parcel survey was discussed in detail because demarcating the bounds of the cemetery is critical to its care and maintenance. RGA staff discussed with the cemetery stewards incorporating the official City survey results into a GIS system in order to conduct analysis of boundary locations for the preservation plan. Due to delays in the city’s schedule, however, the survey had not occurred as of the draft of this plan and is unlikely to be completed in time for

incorporation into the final preservation plan. Some preliminary mapping has been included herein; however, the cemetery's boundaries should be confirmed with on-site survey data.

Non-Invasive Geophysical and Remote Sensing Surveys

Conducting non-invasive surveys and analysis as recommended by PAF and the University of Pennsylvania may provide further information as to the number and arrangement of graves within the cemetery (Gary and Wallace 2024:10–11; J. Herrmann, pers. comm. 2/14/2024). As it is usually an early step in the study of archaeological sites and landscape change over time, a study of historic aerial photography is included in Chapter 2 of this plan.

There are a number of different options for non-invasive surveys of cemeteries. Techniques already recommended to the cemetery stewards include infrared photography, light detection and ranging (LiDAR) analysis, metal detection, GPR, and magnetometry. Each one provides different pieces of information relevant to the arrangement and condition of the cemetery. Each of these surveys is complicated in different ways by the vegetation on site, the age and potential condition of the burials, and any potential disturbance to the soils. These options are discussed in further detail below:

Drone-mounted Techniques: Infrared Photography and LiDAR

Aerial remote techniques including high resolution light detection and ranging (LiDAR) and infrared photography would provide information about elements of the landscape which could help determine more specific aspects of land use history. Although the Pennsylvania Spatial Data Access (PASDA) program has provided statewide LiDAR and infrared data (see Figure 22 and Figure 28), a survey specific to the cemetery would likely result in higher resolution data than is currently available.

Infrared photography is a visual technique that can identify subtle changes in vegetation that indicate subsurface conditions such as graves. It is utilized less frequently in cemeteries than other techniques. It is unclear if the continued vegetation changes to Byberry Burial Ground make it well suited for identification of graves via infrared photography. This technique, however, does not affect the burials, and its truly non-invasive nature means that it could be utilized without affecting the cemetery, if the cemetery stewards wish to pursue this route.

LiDAR utilizes lasers to map the topography of ground surface. Most LiDAR data is collected via aircraft but newer drone-based systems can obtain more detailed topographic information. While still relying on reflected light to determine information (similar, for example, to a laser distance meter or rangefinder), the movement of the drone or aircraft allows the unit to see the landscape from different angles and, ideally, under vegetation. Post-processing of the data allows for the creation of what is called a “bare earth” version of the landscape, where vegetation and other landscape elements can be removed (Chase et al. 2017). For example, the contour lines in Figure 22 are derived from LiDAR data—note that the NARA building is not reflected in the contour lines.

The resolution of LiDAR data wholly depends on the number and density of points that are able to be collected. By utilizing a drone, one would be more likely to see subtle topographic variations caused by disturbances such as sunken grave shafts or dumping episodes. While it is unlikely that the cemetery's corner markers still exist, LiDAR may be able to identify them through the foliage if they are sufficiently raised above the ground surface.

Metal Detection

Metal detection has been successfully utilized on archaeological sites dating back to the 1930s, primarily in the archaeology of battlefields. This method works by creating a small electromagnetic field under the machine. The machine detects small changes to this field caused by buried metal objects. The strength and variability of the return is based on the size, shape, depth, and orientation of an object, as well as how conductive it is. These “hits” must be recorded and excavated to be identified and determined if they are relevant to the survey, because metal trash can provide the same or better returns than buried artifacts (Connor and Scott 1998).

Cemeteries are sensitive cultural landscapes, which should receive minimal ground disturbance. Furthermore, any metal detection of the grounds will generally be able to identify objects at a relatively shallow depth (approximately 1 foot). Given the debris which litters the Byberry Burial Ground, a metal detection survey is likely to identify trash more than cemetery objects. This would mean that a survey could excavate many small, shallow holes in the cemetery. While unlikely to disturb (or identify) any but the shallowest burials, RGA does not recommend the use of metal detecting at Byberry Burial Ground due to the low potential of success and potential for disturbance of burial sites.

Magnetometry

Another technique that relies on the inherent magnetic properties of the earth is magnetometry. This wholly non-invasive technique utilizes sensors which collect data about both earth’s magnetic field and local variations to it. In cemetery contexts, these local variations can be caused by metal objects (similar to what is detected by a metal detector), larger features such as brick vaults, and disturbances in the soils caused by the excavation of grave shafts. Magnetometer surveys are conducted over grids which allow for the analysis of data across a whole site (Aspinall et al. 2008). While total certainty of results can only be achieved by test excavations, having a map of the magnetic disturbances across a site can identify patterns such as rows of graves, which would provide enough information for most cemetery management purposes.

In order to conduct a magnetometer survey, vegetation would need to be cleared and modern magnetic disturbances minimized. The potential for metallic debris in and on the ground surface and the presence of utility lines directly over the cemetery likely limit the utility of a magnetic survey of the Byberry Burial Ground.

GPR

GPR is generally considered the standard for identifying unmarked graves and has been utilized for this purpose for both archaeological and forensic purposes over the past several decades. The results from GPR and other remote sensing methods do not usually involve the identification of specific features. Identifying potential graves in historic cemeteries does not usually involve the identification of physical human remains (i.e., skeletons) (Lowry 2016), but rather the difference in reflections from radar energy pulsed into the ground from the GPR antenna (Conyers 2006). As the pulses encounter varying sub-surface features, they are reflected to the GPR unit in varying degrees of strength and transmission time. Thus, changes in soil compaction and chemistry may transmit a contrasting signature than the surrounding matrix. For example, when using GPR to delineate cemeteries, usually a grave shaft, casket or coffin, spaces/voids, vaults, or burial goods are detected as dissimilar from the surrounding natural strata (Lowry 2016).

The objective of the GPR survey is to identify the location of marked graves and potential unmarked burials within the limits of the survey area. A GPR survey can identify subsurface features, such as grave shafts or coffins, without disturbing the ground surface, and provide the location of marked graves and potential unmarked burial anomalies. Field conditions, such as tree roots, debris, and rocks could affect the results of the survey. Contrast in soils is important for detecting subsurface anomalies such as burials. Since contrast in soils is reduced over time, older burials may be difficult to identify through survey without post-processing.

A standard GPR survey for identifying unmarked graves within a historic-period cemetery would require clearing of most vegetation because the antenna requires good ground contact and the data must be collected on a tight grid (Leach 2021). GPR has the most potential to provide comprehensive information about subsurface conditions at Byberry Burial Ground, although the existing disturbance from tree roots and dumping on the site is likely to mean that any results will require extensive post-processing. While it is impossible to determine exactly what radar data may look like until it is collected, there is a chance that burials in this area may be obscured in the data. Regardless of this complication, RGA recommends GPR as it is the most likely of the discussed techniques to be able to identify the locations of graves within the cemetery.

PHMC Site Files

Since the Byberry Burial Ground has been assigned an archaeological site number (36PH0092), it would be prudent for the cemetery stewards (or any future archaeological contractor) to update the site form maintained with the state after any additional surveys are completed. The current site form was developed with very little information and the cemetery's location in the PHMC files is not entirely correct as it shows the cemetery approximately 130 feet to the northeast of the location indicated by historic maps (see Figure 33).

Updating the current site form and providing information to the PHMC will not directly protect the cemetery, but it will provide accurate information for land managers (such as the DCNR) and others who may need to take the cemetery into consideration for development projects up to several miles away. Historic preservation laws, most notably Section 106 of the National Historic Preservation Act of 1966, as amended, require projects with federal permitting or funding to take into account their impacts on historic resources like the Byberry Burial Ground. These are the auspices under which the original 1988 and 1993 archaeological surveys were completed for the cemetery. There are likewise some state funding and permitting processes that would trigger review by the PHMC.

This process of formally documenting the cemetery with the state is important for a cemetery such as this one without formal markings, signage, or wide recognition of its existence. It is an additional failsafe to help protect the cemetery from encroachment.

Establish a Protective Buffer Zone Around the Cemetery

Once the official property boundary of the cemetery is confirmed, the cemetery stewards may wish to commission a GPR or other geophysical survey within the cemetery boundaries to attempt to identify individual graves within the cemetery. This data could be utilized to determine a protected buffer area around the cemetery which may help prevent damage to any graves which fall outside of the cemetery. Without control of the property within the buffer zone or the implementation of deed restrictions, however, buffer zones are hypothetical and unenforceable. Any survey may need to be followed by additional property negotiations.

Louis Berger & Associates (1993) established a 75ft buffer during the construction of the NARA building in order to protect the cemetery from damage during construction of the facility. This kind of buffer is generally included on construction plans so that contractors know what areas to avoid with machinery. Sometimes, but not always, it would be staked or fenced out in the field. For this cemetery, it is likely that the buffer would only need to extend to the east of the intersection, since the intersection is a historical landmark for the cemetery's location.

Since the exact boundaries of the Byberry Burial Ground are not known, it may be prudent to conduct non-invasive investigations outside of the property boundary to determine the exact edge of the cemetery. To do any geophysical survey outside of the property boundary would require permission of any landowners of the neighboring parcels and clearing of vegetation and debris.

Generally recommended archaeological survey methods could include starting the survey from the known graves and searching in directions away from the cemetery until no graves are identified. Given that the data will need to be post-processed for best identifications, this may necessitate a process of establishing small zones outside of the property and conducting survey incrementally farther out from the cemetery (for example, 20 or more feet at a time). Each area could be processed and then survey would move out to the next zone as appropriate. A survey of a larger area could also be conducted all at once, likely for less time and cost. In that case, RGA recommends for the survey to cover as much of the buffer zone from Louis Berger & Associates as is feasible for survey, since they looked for graves outside of that buffer but not within it (Louis Berger & Associates 1993). This would provide the most comprehensive delineation of the cemetery and highest confidence in the results.

Once the geophysical practitioners and cemetery stewards are satisfied that the cemetery has been delineated and mapped, additional steps could be taken. The cemetery stewards may wish to establish their own protective buffer for the cemetery, taking into account the identified or possible graves and mapping a set distance of protective buffer around them. This distance varies and consultation with PHMC is advisable to determine the best course of action.

If graves are found outside of the property boundary, the cemetery stewards may want to investigate purchasing or otherwise transferring that portion of the parcel to their control or whether it is possible to add a cemetery easement and/or deed restriction to the deed for that property. This change to the property's deed should cover the cemetery and any agreed-upon buffer zone.

Secure Managerial Control of the Cemetery

Byberry Burial Ground has ownership issues just like other African American cemeteries not associated with churches or municipalities. The Byberry Meeting owned the cemetery for many years but a failed land transfer to the City of Philadelphia has cast its ownership into doubt. SPPAAA and the Preservation Alliance have been working to straighten out these ownership issues and ideally transfer ownership to the DCNR for incorporation into Benjamin Rush State Park.

Once the City's survey is complete, it would be prudent to try to determine whether there are any easements related to utilities that impact the cemetery and consult with a real estate lawyer about what may be done to protect the cemetery related to these concerns.

RGA encourages the current stewards of Byberry Burial Ground to continue their efforts to add the cemetery to Benjamin Rush State Park, which would provide a long-term structure for preservation

of the site. Management by a state park would also potentially help curb dumping and provide protection against or recourse after any potential vandalism.

Signage

To encourage positive interactions with the cemetery and its understanding as sacred space, RGA encourages the cemetery stewards to install a more permanent sign at the roads' intersection, which indicates the name and existence of the cemetery. Interpretive signage may also be included, as was discussed in the Interpretation Plan (Gary and Wallace 2024). Care should be taken to place signs in areas where no burials are known to exist. This may necessitate placing all signage along the former roadways unless geophysical survey can reasonably determine the locations of burials.

Signage should reflect whatever style the current owner of the property and any applicable local regulations require. (For example, if the cemetery falls under the purview of DCNR, that agency has a particular style that must be followed.)

Cemetery stewards should notify local law enforcement of the existence of the cemetery and encourage them to deter visitors after park hours. The cemetery stewards should check with local officials regarding any requirements or ordinances prior to posting the signs. Local sign companies and online sign providers can make signs quickly and at a low cost.

Byberry Burial Ground stewards should report vandalism or observed dumping to the local authorities. Documentation serves to keep the cemetery stewards' records complete and may be invaluable in associated criminal or civil proceedings. Criminal and civil cases can take years to make their way through the legal system; it is in the cemetery stewards' best interest to rely on detailed and complete records made at the time, rather than someone's long-term memory.

Site Clearing

Byberry Burial Ground is overgrown by a young forest. Trees, shrubs, weeds, and an assortment of other woody plants makes it almost impossible to access portions of the cemetery, in addition to potentially obscuring cemetery features. This growth can be a safety concern for visitors searching for burials in these areas, creating tripping hazards and potential for damage to the ground surface their removal. While conducting fieldwork, RGA staff were unable to survey the full bounds of the cemetery due to shrubby undergrowth. Kayla Kehres, Forester for DCNR, identified numerous tree, shrub, and invasive species in and around the cemetery (Gary and Wallace 2024:Appendix B).

Photography of the cemetery in 1993 suggests that most, if not all, of the trees in the cemetery date to the past thirty years and are therefore not relevant to the historic landscape of the site (see Figure 25---Figure 30). Furthermore, it can be reasonably assumed that if the cemetery were plowed in the last quarter of the nineteenth century and again in the twentieth, then it has been cleared of historic vegetation several times in its history.

Although the preparation of a site map and documentation are generally recommended prior to a clearing project (Strangstad 1988:42), the relatively recent growth of these woods and lack of formal markers in the cemetery suggest that the cemetery stewards can forego this step. The undergrowth makes documenting the site significantly more difficult and less accurate, even if the mapping is done in the winter when much of the plant material has died off or is dormant. It is recommended that the stewards remain steadfast on their implementation of a regular maintenance schedule.

The first impulse for many organizations is to rush into these overgrown areas with a brush hog or large zero-turn mower, or to broadcast a multi-spectrum herbicide. These approaches can cause significant damage and loss of information in a cemetery setting. When clearing a cemetery, it is important to ensure that no gravemarkers or other landscape features, including deliberate funerary plantings, fieldstones, broken stones, and plot markers, are moved prior to documentation. The use of plain, undecorated fieldstones as gravemarkers is documented in African American cemeteries, as well as in other circumstances where the financial resources were not available to purchase a custom headstone (Little 1998:36; Kruger-Kahloula 1989:33). Examples of informal markers from an African Methodist Episcopal (AME) church cemetery in Bucks County are found in Figure 34. This cemetery post-dates the start of Byberry Burial Ground by 90 years, but early grave markers at Byberry Burial Ground may have looked similar (using whatever local stone could be found) or may have been made of wood. Stone grave markers were not originally utilized in Friends cemeteries due to religious beliefs about “plainness” (Arch Street Meeting House 2024). We do not know what religion those buried at Byberry Burial Ground practiced or how they chose to memorialize deceased members of their community, so it is difficult to know what memorials may have originally been in the cemetery.



Figure 34. Examples of two informal stone markers from Mount Gilead AME Church cemetery in Buckingham, Bucks County, that are believed to both be from the 1860s, based on additional research. The stone marker on the left has "1861" inscribed on the face. The stone on the right is uncarved. The scale bar represents 20 centimeters (7.8 inches). (Reproduced from Ratini 2014:88)

Much of the information that can be gleaned from informal landscape features is based on their physical location within the cemetery; for example, gravemarkers that are moved from their original placement are no longer gravemarkers, since they lose their association with the remains of the deceased. Moving stones also obscures family and other relationships that may be evident from the stone’s location relative to those of other individuals. Moving a stone is a decision that must be made carefully. Stones should not be moved to make straight rows, create pathways, or to “correct” the direction that they are facing.

If any grave markers (stones or fragments) are found during the clearing and require removal (i.e., to prevent theft or further damage), their location and orientation should first be fully documented on paper, in photographs, and ideally with scaled maps with GPS coordinates. Ideally, these fragments should be documented, clearly identified, and stored in a safe, dry place; however, this is often impractical due to the lack of appropriate storage facilities and/or the large number or size of pieces requiring curation. In these cases, the burial of stone fragments behind their associated standing “parent stone” is acceptable; these should still be fully documented prior to burial. For both on-site

burial and off-site curation, documentation should include the location at which the fragment was found, the gravemarker or other landscape feature to which it belongs, orientation, a sketch, and a photograph. No fragments or bricks should be discarded because they will be important for any future stone conservation. If the pieces are to be buried, a sketch map and notes describing the placement of the fragments in relationship to the parent stone must also be included. Unidentifiable fragments, where the parent stone cannot be determined, should be buried at the nearest of a few carefully documented locations.

To properly bury fragments, dig a hole wide enough that the fragments can lay flat without overlapping or impinging on one another. Although a depth of 10 to 15 inches is recommended (Strangstad 1988), only dig as deep as is necessary to minimize subsurface impacts, about 6 to 8 inches deeper than the thickness of the stone to be buried. Place approximately 2 inches of clean sand in the bottom and place the stone flat and face up in the sand. Cover with additional clean sand, and finish filling the hole with the previously excavated soil and sod (Strangstad 1988). If only a small quantity of clean sand is needed, bags of sandbox sand can be purchased at local garden centers; for larger quantities, contact a landscape supply company. This sand will help keep moisture drained away from the stone, as well as providing a visual clue to the presence of fragments when they are recovered in the future.

Clearing should be done with hand-held clippers. Once the bulk of the overgrowth has been removed, string trimmers with light-gauge nylon cord (no heavier than 0.09-inch) can be used in areas where there are no markers or other cemetery features. To prevent damage to burials or other subsurface features, plants should not be pulled out of the ground by their roots. Instead, trim unwanted plants close to the ground and paint the cut stem with an appropriate herbicide. This will limit the amount of herbicide that both individuals and stones are exposed to. In addition, this approach limits the amount of herbicide present in the soils, permitting further plantings (such as ground cover or grass seed) to grow.

Following the above guidelines, site clearing can be done either by a contract landscaper or by supervised volunteers. Regardless of whether paid or volunteer resources are used, it is anticipated that the clearing project will take place over several seasons. To facilitate mapping and recordation, clearing should begin in areas where visibility, even in winter when plant growth is dormant, is limited. This will enable basic mapping to be completed, so that recordation can move forward.

RGA recommends the following steps for volunteer work days, but the cemetery stewards should consult with the various involved parties, including DCNR, to determine what is appropriate:

Prior to a Volunteer Cleanup Day

- Before planning clearing and cleanup activities at the cemetery, cemetery stewards should **ensure that there are no conflicting activities planned** at Benjamin Rush State Park near the cemetery.
- Stewards should **make staff of Benjamin Rush State Park aware** of all planned clearing and cleanup activities.
- Provide in all promotional materials that **volunteers should wear appropriate clothing** for outdoor work. Volunteers should not wear open-toed shoes such as sandals, flip-flops, or heels.

- Provide in all promotional materials the types of **hand-held equipment that volunteers should bring** to the cemetery for clearing and cleanup.
- Provide in all promotional materials **instructions on where potential volunteers should park** for clearing and cleanup at the cemetery.
- Include in all promotional materials the **exact address for the location where volunteers should park**, as well as directions to the cemetery from the parking area(s).
- Clearly state in promotional materials if the walk from the parking area(s) to the cemetery is on an earthen, paved, or graveled path, as well as the distance from the parking area(s) to the cemetery.

On a Volunteer Clean-up Day:

- At least **one cemetery steward should be stationed at the parking area** wearing a yellow and/or orange safety vest to alert volunteers to the steward's presence, and the steward should be prepared to direct volunteers to the cemetery.
- Stewards should have sufficient organizational **volunteers present to address questions** from casual volunteers, passersby, and local media.
- Stewards should plan on equipping volunteers with walkie talkies or establish texting and/or cell phones call as the **standard form of communication** between organizers and volunteers.
- If possible, have one city **Emergency Management Systems (EMS) vehicle present** in the cemetery in preparation for any potential emergency.
- If the cemetery stewards have pre-arranged visits to the cemetery with local media to publicize the clearing and cleanup efforts, at least **one cemetery steward should be assigned to welcoming and navigating the local media representatives** throughout the cemetery during the clearing and cleanup efforts.
- Before conducting any clearing activities in the cemetery, ensure that **all volunteers are aware of the goals and objectives** associated with this aspect of the project.
- Stewards should outline explicitly for volunteers the types of things that require the volunteers to cease work and alert the stewards, such as unique and interesting plantings or objects located in various locations throughout the cemetery.
- In advance of clearing activities, sponsoring organizations should **clearly identify the boundaries** of the area where all work should be conducted.
- Organizations sponsoring clearing activities at the cemetery should prepare **a release form that all volunteers must sign** before beginning work in the cemetery. The release form should indemnify the property owner and sponsoring organizations from any liability claims filed by the volunteers.
- Organizations sponsoring clearing activities at the cemetery should prepare a photograph release form that all volunteers must sign before beginning work in the cemetery. It is very important that organizers not upload photographs of individuals or groups on social media or websites or include photographs in promotional materials showing individuals or groups who have not signed the photographs release form.
- Be sure to make each volunteer complete a **sign-in sheet** so that the sponsoring organization has basic information (name, email address, phone number) for each volunteer who works during the clearing activities.

- One or two stewards should be assigned the responsibility of making sure that **all safety protocols are addressed** before any work begins and serve as safety monitors throughout the day.
- **All clearing should be done with hand tools** such as loppers, pruners, rakes, and weed wackers.
- All vegetation and small saplings should be **cut to ground level** to avoid tripping hazards.
- **Plans for the removal** of clippings and trash from the site should be made well in advance of the scheduled clearings in the cemetery.
- **Avoid using heavy machinery** like backhoes, brush hogs, and zero-turn mowers.
- **Mark all extant gravemarkers or landscape features**, including deliberate funerary plantings, fieldstones, broken stones, and plot markers with survey flags and each volunteer understands that they should **avoid removing these objects**.
- Secure **appropriate bathroom facilities** such as an outdoor portable toilet for volunteers.
- Based on the season when clearing activities are scheduled, sponsoring organizations should **provide volunteers with seasonally appropriate safety equipment** such as bug spray, sunscreen, bottled waters, etc., unless they explicitly note in their publicity materials that volunteers are responsible for bringing these items.
- **Monitor volunteers** using handheld or backpack blowers to ensure that they are not displacing previously undocumented pieces of grave markers or grave goods.
- **Cut unwanted vegetation as low as possible**. As much as is feasible, do not pull unwanted vegetation by the roots as this can disturb the ground. Tree stumps may need to be left in place but should be cut as low as possible to avoid creating a tripping hazard.

Cleanup Notes Prior to a GPR Survey

Any GPR survey may be limited by the existing groundcover. The ideal ground surface for a GPR survey is bare earth, since the antenna requires good contact with the ground to achieve best results and it can be difficult to physically maneuver the machine around obstacles. Any obstacles which stop its path can prevent the collection of data in that area.

Bare earth is often not desirable or feasible within a cemetery due to erosion, aesthetic, and labor reasons. In lieu of bare earth, all vegetation should be cut as low as possible (the height of a manicured lawn is fine for grasses). Stumps, brush, and debris should all be removed. Vines and small shrubs, while visibly not as intrusive, can also stop the movement of a GPR antenna over the landscape and should likewise be cut as low as possible. For further guidance, please discuss with your GPR contractor far enough in advance of survey that any additional cleanup effort(s) can be conducted.

Research

Research is one of the most important parts of a cemetery preservation plan and should be conducted throughout the project to support past documentation and uncover new information on the history of the cemetery and its decedents. The dearth of primary materials on African American cemeteries and their decedents can be problematic for researchers, but developing an understanding of the primary materials held in public repositories and the digital records available online will help uncover materials otherwise thought to be non-existent, missing, or destroyed. Researchers can assemble the

history of a cemetery and biographical information on the decedents from primary and secondary resources.

Genealogical research was recommended by Gary and Wallace (2024) and RGA supports this recommendation wholeheartedly. Researchers may be able to find biographical information on their cemetery's decedents at repositories and in sources such as churches, funeral homes, burial associations, and in death certificates. Other sources include newspaper obituaries and other types of death notices, family histories, bibles, diaries, correspondence, probate records, mortality schedules, military service records, tax records, and tabular charts created by genealogists.

Community Outreach and Involvement

An extensive Interpretation Plan has already been developed for the Byberry Burial Ground (Gary and Wallace 2024), which outlines numerous opportunities for memorialization and community engagement. The cemetery stewards should utilize this plan and continue to consult with the larger descendant community to determine the best paths forward for this cemetery.

Maintenance

Maintenance is an important part of managing a cemetery. Byberry Burial Ground has several current maintenance issues that need to be addressed, including clearing and maintaining the cemetery and removal of debris from the site. Further consultation with arborists should be conducted to determine which trees should stay or be removed from the site—and a potential timeline for doing so.

Setting Priorities

During the implementation of the maintenance plan, issues beyond the regular landscaping will arise that the cemetery stewards need to address. The safety of the cemetery and its visitors should receive the highest priority. For example, a dead tree threatens the safety of the cemetery (the roots could disturb burials) as well as the safety of its visitors. Aesthetics generally warrant a lower priority than safety; however, if something is very easy to accomplish (high impact and high feasibility), such as removing refuse from the site and clearing overgrowth, it can certainly be done sooner.

Inspections

Cemetery stewards should make regular, systematic inspections of the cemetery at least twice per year; however, seasonal inspections (quarterly) are preferred. These inspections will serve to alert the Byberry Burial Ground stewards to any issues that may arise (hopefully before they become emergencies) and enable them to plan future activities based on up-to-date information about the cemetery. Inspections should be done by the cemetery stewards, one of their assignees, or by volunteers who are very familiar with the cemetery. If available, an up-to-date map of the cemetery should be used during inspections to accurately identify problem locations. Cemetery stewards should not delay inspections because they have not yet created a site map; instead, they should use sketch maps and make careful notes regarding the locations of issues that need to be addressed. Lists of stones and other landscape features previously identified as requiring attention should also be brought into the field for reference.

Photographic documentation of general conditions and of specific conditions that require attention (as well as documentation of actions taken) is a vital part of a successful inspection program. Cemetery stewards should take high-resolution photographs and archive them in a database or folder on a

computer or external hard drive. They should keep completed inspection checklists and photographs as part of their archive as a record of the cemetery's condition over time.

Weeds

Much of Byberry Burial Ground remains dense undergrowth. Because of the extent of soil disturbance involved and the potential to damage cemetery features, rototilling to remove areas of dense weeds is not recommended. In addition, brush hogging or similar approaches to clearing dense vegetation are discouraged due to the potential for damage to any potential surviving plot or corner markers.

In providing her assessment of vegetation within the cemetery, Kehres included documentation on weeds and invasive plants found within and near the cemetery as well as documentation on their management (Gary and Wallace 2024:Appendix B). This documentation should be consulted as part of a landscaping plan for the cemetery in order to minimize the potential to spread invasive plants.

Ground Cover

While the cemetery is currently forested, removal of undergrowth and trees requires some level of maintenance to keep the area clear. If the ground surface is allowed to stay barren, it will regrow—potentially with invasive plants that are more difficult to remove. At some point (when funds are available), cemetery stewards may consider planting perennial low-lying ground cover or clovers from seed instead of grass in portions of the cemetery. This is particularly important along the cutbank to help prevent erosion in these areas. These ground covers do not require mowing, which minimizes the cost of landscaping.

Trees and Shrubs

The maintenance of trees and shrubs is an important part of cemetery upkeep. Unmaintained trees can be a liability to both the cemetery and to visitors. A falling tree, in addition to the damage caused when it falls on something, also pulls up a lot of soil in its roots and causes a great deal of disturbance. Scrub or “weed” trees should be removed and shrubs should be pruned if not removed. Trees and shrubs should be visually inspected at least once a year (late spring/early summer is preferable because you can clearly see if a tree is dead). Dead or dying branches should be trimmed to prevent damage to the cemetery. Dead or scrub trees should also be removed by cutting them as close to the ground as possible, and the stumps left in the ground. Use caution or cut them in small pieces starting at the top of the tree to ensure that the felled tree does not cause any damage to existing cemetery features or individuals. Stump pulling or grinding is not recommended because of the amount of subsurface disturbance involved in these practices.

Byberry Burial Ground's stewards should follow these guidelines when addressing trees in the cemetery:

- Consult with an arborist certified by the International Society of Arboriculture (ISA) to determine if trees can be saved.
- It is preferable to use professional tree climbers and hand tools to prune or remove trees. Any necessary vehicles should be of a size to fit narrow paths without damaging grave enclosures.
- Minimize the use of bucket trucks and other heavy machinery, which may damage graves and the roots of healthy trees.
- During removal of some trees, protect the root zones of trees the stewards wish to maintain from vehicles by covering them with rubber mats or plywood and a thick layer of mulch.

- If the arborist determines that a tree cannot be saved, cut the stump flush with the ground, and allow it to deteriorate naturally.
- Do not grind stumps or remove root balls, unless necessary. Uprooted root masses may be placed in root void and allowed to decay. Topsoil can be added to create a level ground surface.
- Do not use chemicals to accelerate the decay of the root system as the effects of these chemicals on porous gravestones is unknown.
- If removal of uprooted root masses is determined to be necessary, an archaeological monitor should be present.
- For trees at risk of toppling, consult with an arborist to determine if the tree can be safely uprighted with a reasonable confidence of survival.
- If the tree cannot be uprighted, cut the stump flush with the ground and allow the root ball to settle back into the ground. Add topsoil and seed as needed.

Replanting Trees

While no historic trees are believed to exist in or around Byberry Burial Ground, the cemetery stewards may want to develop a plan for replanting trees at some point in the future.

- Replace dead or damaged trees with in-kind species when possible.
- Identify open areas free of graves or other structures for planting replacement trees.
- New trees may be planted in the same location as removed trees to minimize soil disturbance. After a period, replacement trees can be planted in the voids created by decaying stumps. Consult an arborist for guidance on ‘stump planting’ and ‘mound planting’ techniques that may be appropriate in a historic cemetery setting.

Cemetery stewards should visit NPS’s webpage on landscapes and vegetation to learn more about how to manage the landscape of Byberry Burial Ground (<https://www.nps.gov/articles/000/cemetery-preservation-course-landscapes-and-vegetation.htm>). Much of the information is geared toward more formal cemeteries but much is still relevant to this cemetery. Sponsored by the National Center for Historic Preservation Technology and Training, the webpage includes videos on managing cemetery vegetation; removing invasive plants; an overview of herbicides; herbicide application; removing vegetation growing in soil buildup on cemetery hardscapes; removing invasive trees abutting cemetery monuments; and maintaining Japanese lawn grass in cemeteries.

RGA does not recommend fully clearcutting Byberry Burial Ground, as the historical landscape of the site is unknown and maintenance of a fully open site may prove more difficult. RGA recommends consulting with professionals such as arborists, landscapers, cemetery conservators, naturalists, and landscape architects to determine what vegetation may be historically appropriate and relatively easy to maintain. For interpretive purposes, the cemetery stewards may also want to consider what they desire visitors to feel when visiting this space and how the experience of vegetation or lack thereof may contribute to that.

Trash

As noted earlier in this report, architectural debris and household refuse has been dumped in and around the cemetery. During regular inspections of the cemetery, any new dumping should be noted, reported to authorities, and removed.

5.0 Recommendations for Byberry Township African American Burial Ground

Summary

The stewards of Byberry Burial Ground face several challenges, including the historical lack of consistent landscape management and property ownership concerns. RGA staff and cemetery stewards have identified specific issues related to these challenges and then prioritized these issues using a system that incorporates the factors of need and feasibility. The purpose of this prioritized preservation plan is to serve as a planning document for the stewards. This document will aid the stewards by addressing their challenges in a manageable manner. SPPAAA and the Preservation Alliance have already begun tackling some of the cemetery's larger issues, and this document has been written concurrently with those efforts. This is not a static document; the stewards should re-evaluate their needs and priorities on a regular basis.

An overall summary of priority categories and their associated tasks identified in this preservation plan follows. Details regarding the implementation of these tasks can be found in the relevant section of this report.

Task: Recordation and Managerial Control of the Cemetery

- Complete a survey of the legal parcel boundary of the cemetery (already planned to be completed by the City of Philadelphia in spring 2024).
- Continue to work with the DCNR, City of Philadelphia, and Byberry Friends Meeting to transfer parcel ownership to the DCNR as part of Benjamin Rush State Park.
- Conduct non-invasive remote sensing and geophysical survey(s) of the parcel in an attempt to delineate the extent of graves within the parcel. This data should be recorded with a GPS system with high spatial accuracy (less than 1ft) and connected with the survey data via GIS to create a comprehensive understanding of the landscape.
- If graves appear to extend beyond the edges of the parcel during these surveys, consider obtaining permission from neighboring property owners to clear and conduct survey over a larger area.
- Update, or have an archaeological contractor update, the archaeological site form on file at the PHMC to reflect the boundaries of the cemetery based on parcel and remote sensing/geophysical data.
- Alert local authorities (local police or park rangers) to the presence and location of the cemetery so that it can be added to routine inspections. Document and report any new dumping episodes or vandalism to the authorities.

Task: Site Clearing and Maintenance

A general note for all points about site clearing and maintenance: It is recommended that, unless there is a new, pressing cemetery management concern, clearing and maintenance activities should occur after the property boundary is delineated. This both conserves volunteer effort and prevents potential trespassing on neighboring properties.

- Continue to clear dumped items from property, taking care to err on the side of caution with stone that could represent grave markers or original property boundaries. It may be preferable to leave these stones in place. Objects should be cleared by hand as much as possible to avoid erosion, compaction, or other damage from machinery.
- Given that the trees on the site are not believed to be historic, determine a plan for which trees should be maintained and which trees should be removed based on safety and aesthetics. Consultation with an arborist will be important in determining the health and potential longevity of the trees. It is recommended that the cemetery stewards determine a specific plan for overall interpretation and memorialization at the site before removing or plating large landscape features like trees, as they are difficult to replace and remove.
- Conduct inspections of the cemetery grounds on a regular basis to identify any new landscaping concerns and to quickly identify dumping or other vandalism. It is recommended to conduct at least one of these inspections when the vegetation is dormant (i.e., late fall, winter, or early spring) in order to get the clearest view of the landscape. Keep a photographic record of the cemetery conditions for comparison in the future.
- Overgrown vegetation should be cleared primarily by hand to avoid disturbance of the cemetery grounds. Follow the arborist's guidance provided in the Interpretation Plan with regards to the control of invasive species (Gary and Wallace 2024:Appendix B).
- Consider establishing low-growing perennial ground covers such as clover for easier maintenance of the cemetery plot. This ground cover can also be used to help control erosion from the cutbank.

Task: Memorialization, Outreach and Involvement

- Once the property survey is complete, install readily reversible landscape markers such as stone to indicate the cemetery boundary. If non-invasive surveys of the cemetery have not been completed, the reversibility will be important in order to potentially revise the boundary in the future.
- Install signage along the intersection that indicates the presence of the Byberry Burial Ground. Avoid installing signage or memorials within the cemetery that require any ground disturbance.
- Cemetery stewards should continue to utilize the Interpretation Plan (Gary and Wallace 2024) to guide community engagement with the site.

- Additional genealogical and historical research may identify lineal descendants of those buried in the cemetery. Identified descendants should be brought into discussions about the future of the cemetery, if they are interested in participating.
- Watch webinar: <https://learn.aaslh.org/products/recorded-session-memorializing-african-american-history-cemeteries-monuments-and-markers>.
- Watch webinar: <https://learn.aaslh.org/products/recorded-webinar-caring-for-historic-cemeteries>.

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1983 High Resolution National High Altitude Photography Color Infrared for Pennsylvania 1980 to 1987. Pennsylvania Spatial Data Access (PASDA). Electronic resource, <http://www.pasda.psu.edu/>, accessed March 11, 2014.

United States Geological Survey (USGS)

1993 Digital Orthophoto Quarter Quadrangle Images for Pennsylvania. Pennsylvania Spatial Data Access (PASDA). Electronic resource, <http://www.pasda.psu.edu/>, accessed March 11, 2014.

Appendix A: Staff Resumes

**YEARS OF EXPERIENCE**

With this firm: 1
 With other firms: 11
 In other heritage fields: 3

EDUCATION

MA 2014
 Uni. of Massachusetts Boston
 Historical Archaeology

Certificate 2011
 Bucks Co. Community College
 Historic Preservation

BA 2008
 Rutgers University
 Anthropology/English

PROFESSIONAL TRAINING

Advanced Interpretation for
 GPR, GSSI

Master Class in GPR Data Post-
 Processing, ScreeningEagle

Mapping Sites with Magnetic
 Susceptibility, Council for
 Northeastern Historical
 Archaeology (CNEHA)

PROFESSIONAL SOCIETIES

Register of Professional
 Archaeologists (RPA)

CNEHA (Vice Chair, USA)

Society for Historical
 Archaeology (SHA)

Pennsylvania Archaeological
 Council (PAC)

Archaeological Society of New
 Jersey (ASNJ)

MEAGAN M. RATINI

DIRECTOR OF GEOPHYSICS

Meagan Ratini, RPA, has over twelve years' experience in archaeological investigations across the Eastern US, including excavations, geophysical surveys, collections projects, and laboratory analyses. She specializes in combining traditional archaeological methodology, archaeological geophysics, and geographic information systems (GIS) to create fuller understandings of the past. She has served as Principal Investigator for geophysical surveys, Phase I and II archaeological investigations, and monitoring on sites ranging in date from the Archaic Period to the 1950s and has conducted analysis for Phase III data recovery projects, both historic and precontact. Her geophysical projects have delineated numerous historic-period cemeteries and have identified potentially National Register-eligible archaeological features for federal and state agencies, military bases, museums, and private clients. She specializes in archaeological ground-penetrating radar (GPR). Ms. Ratini has extensive experience across the Mid-Atlantic and Southeast regions and meets the qualifications set forth in the Secretary of Interior's Standards for Archaeologists and Historians [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Geophysical Survey of Historic Moorefields: Manor House, Yard Areas, and Cameron-Moore-Waddell Cemetery, Hillsborough, NC (Sponsor: Friends of Moorefields)

Principal Investigator for dual method geophysical survey of the yard areas around the 1785 home of US Supreme Court Justice Alfred Moore. Magnetometry was conducted over four acres of the property and identified 32 anomalies of possible archaeological origin. One acre targeted for further GPR survey, which identified an additional 14 potential archaeological anomalies. Pedestrian survey also identified a potential area of burials of enslaved individuals. Subsequent ground-truthing identified potential structural remains.

Lexington City Cemetery, African American Section, City of Lexington, NC (Sponsor: City of Lexington)

Principal Investigator for GPR survey of a small (0.17-acre) area of the historic Lexington City Cemetery (31DV0992), which contains a marker stating it contains the burials of enslaved individuals. Survey identified 32 potential unmarked burials in the survey area.

GPR and Magnetometry Survey of African American Cemetery, Stony Brook, NY (Sponsor: Stony Brook University)

Assisted with interpretation of cemetery for enslaved and indentured individuals which had had its markers damaged and removed. Four potential burials were identified in the survey, suggesting that existing aboveground markers for graves need to be moved to reflect actual locations of burials.

Alexander Rock House GPR Survey, Charlotte, NC (Sponsor: Charlotte Museum of History)

Supervised and co-authored report on survey of an area of the Hezekiah Alexander Homesite, the earliest house in Mecklenburg County. Survey was intended to identify potential burials based on earlier archaeological infrared photography investigations. No burials were identified within the

survey area, but possible historical features and earlier archaeological excavations were identified.

GPR Survey of Mount Gilead AME Church Cemetery, Buckingham, PA (Performed for previous employer)

Conducted GPR and geospatial survey of the Mount Gilead African Methodist Episcopal Church Cemetery in order to map marked and unmarked graves dating back to the mid-19th-century. Research confirmed many graves and located potential locations of approximately an additional hundred graves. Master's thesis based on this project received the departmental thesis prize for excellence in historical archaeology.

**YEARS OF EXPERIENCE**

With this firm: 2019-Present

With other firms: 22

EDUCATION

MA 2006
University of North Carolina
at Charlotte
Public History

BA 1996
University of North Carolina
at Charlotte
History

PROFESSIONAL TRAINING

MAS-08 Historic
Preservation Boot Camp
Craftwork Training Center
Limeworks.us, 2022

Campbell Center for Historic
Preservation Studies,
Preservation of Gravestones
and Monuments, Basic and
Advanced Techniques, 2013

Edgecombe Community
College, Preservation Trades
School, 2008

PROFESSIONAL SOCIETIES

Member, American Cultural
Resources Association

Professional Associate,
American Institute of
Conservation

Certified Jahn Mortar
Installer, Cathedral Stone
Products

Member, Association of
Gravestone Studies

Board Member, Preservation
North Carolina

JASON HARPE**PUBLIC HISTORIAN/DIRECTOR OF CEMETERY CONSERVATION (36 CFR 61)****PROFESSIONAL EXPERIENCE SUMMARY:**

Jason Harpe has over twenty years of experience in the field of historic preservation. His experience includes historical research and writing, architectural surveys and analysis, the preparation of National Register of Historic Places nominations and local landmark reports, and facilitating the acquisition, preservation, restoration, and maintenance of historic structures, buildings, cemeteries, and historic sites. Mr. Harpe has worked on cultural resources surveys in accordance with Section 106 of the National Historic Preservation Act and other municipal and state cultural resource regulations. He is also a certified Gravestone and Monument Conservator, Professional Associate of the American Institute for Conservation (AIC) and has prepared conditions assessments for cemeteries and has worked on numerous projects involving the conservation and restoration of gravestones and monuments. His educational and professional experience meet the qualifications set forth in the Secretary of Interior's Standards for an Architectural Historian and Historian [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE

Mt. Olive Cemetery Conditions Assessment, Jackson, Mississippi (2022) (Sponsor: Jackson State University) Prepared a fully illustrated cemetery and gravemarker conditions assessment for this historic African American cemetery located on the campus of Jackson State University. The assessment included maps and photographs, as well as the appearance and condition of each gravemarker and mausoleum. Presented recommended conservation treatment methods for each gravemarker and mausoleum, provided the electronic data sheets and photographs, and provided our cemetery database and the geospatial data.

Zion Evangelical Lutheran Church Cemetery Conservation, Hickory, North Carolina (2022) (Sponsor: Privately funded) Conserved over 200 gravemarkers dating from the late eighteenth century to the early twentieth century. Conservation services included treating all gravestones with D/2 Biological solution, resetting unlevel gravestones, repairing damaged gravestones, and re-attaching components of monuments that had been displaced.

Nantucket Cemeteries Conditions Assessment, Nantucket, Massachusetts (2021-2022) (Sponsor: Town of Nantucket) Prepared a fully illustrated conditions assessment report for five cemeteries on the island of Nantucket, with maps and photographs and organized by cemetery. The report described the appearance and condition of each of the damaged gravemarkers and monuments, presented recommended conservation treatment methods for each gravemarker and monument, and provided the electronic data sheets and photographs. We also provided our cemetery database and the geospatial data.

Derr Family Cemetery Study and Conservation, Denver, North Carolina (2021-2022) (Sponsor: Privately funded) Served as lead on this privately funded project that included research on the Derr Family of Lincoln County, North Carolina, and the development of a context statement on walled family cemeteries in the Catawba Valley region of North Carolina. Conserved 11 gravemarkers in the cemetery, six of which were large box tombs.

National Register of Historic Places Nomination, Oakdale Cemetery, Hendersonville, North Carolina (2014) (Sponsor: City of Hendersonville) Researched, wrote, and submitted a successful National Register of Historic Places nomination for Oakdale Cemetery.

National Register of Historic Places Nomination and Gravestone and Monument Conservation, Shiloh Presbyterian Church Cemetery, Town of Grover, Cleveland County, NC, and Town of Blacksburg, Cherokee County, SC (2011) (Sponsor: Privately funded) Lead on a privately funded project that included reports for the Shiloh Presbyterian Church Cemetery to be listed in the National Register of Historic Places and designated as a local historic landmark. Conserved professionally all the gravestones and monuments in the cemetery.

**Years of Experience**

With this firm: 2018-Present

With other firms: 23

Education

MA 1995

North Carolina State University
Public History

BA 1992

Eckerd College
Philosophy**Professional Training**Section 106 for Experienced
PractitionersPreparing Section 106
Agreement DocumentsSection 106 Review for
Planners and CRM
professionalsInnovative Approaches to
Section 106 MitigationProject Budgeting for CRM
ProfessionalsCertified Jahn Mortar Installer
Cathedral Stone Products**Professional Societies**(Former) Director, American
Cultural Resources Association(Former) Chair, Wake Forest
Historic Preservation
CommissionVoting Member, Capital Area
Preservation Anthemion
Awards Committee2018 North Carolina Museum's
Council's Award of Excellence**ELLEN TURCO****PRINCIPAL SENIOR HISTORIAN (36 CFR 61)****PROFESSIONAL EXPERIENCE SUMMARY:**

Ellen Turco has over 20 years' experience in cultural resources management across multiple industries such as transportation, telecommunications, oil and gas infrastructure, and land development. Her experience includes historical research and writing, architectural surveys and analysis, National Register of Historic Places evaluations for individual resources, districts, and landscapes, both state and federal Historic Preservation Tax Credit applications, and the preparation of both Memorandum of Agreement and Programmatic Agreement documents. She has conducted and directed cultural resources surveys in accordance with Sections 106 and 110 of the National Historic Preservation Act, as amended, NEPA, and other municipal and state cultural resource regulations. Ms. Turco exceeds the qualifications set forth in the Secretary of Interior's Standards for an Historian and Architectural Historian [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Cemetery Relocation, Wendell, NC (Sponsor: Wake Technical Community College) Served as project manager for a multicomponent project to relocate 16 nineteenth-century graves. The burials were on the site of the proposed new Wake Tech campus and were relocated to a perpetual care cemetery in Raleigh. This project required knowledge of, and strict adherence to, state grave removal laws, the preparation of a successful grave removal petition for presentation to the county Board of Commissioners, and coordination with multiple parties including the county health department, the county planning department, a licensed funeral director, and the grave removal contractor.

Friendship Chapel Cemetery, Wake Forest, Wake County, NC (Sponsor: Wake Forest Historical Society) Researched the hidden history of this former slave cemetery through deeds, oral histories, genealogies, and church and personal family records. Developed a context for area folk cemeteries and burial practices. This information, along with collected documentary and current photos, was compiled into a GIS-based interactive Storymap hosted on the website of a local museum. This project won a North Carolina Museum Council's Award of Excellence for 2018.

Local Landmark Designation Report for Seth Jones Cemetery and Walled Cemeteries of Wake County Context, Rolesville, NC (Sponsor: Capital Area Preservation) Served a project manager for a report on the Seth Jones Cemetery that included a context statement on walled cemetery of Wake County, North Carolina.

Improvements to NC 42 Interchange with I-40, Johnston County, NC (Sponsor: NCDOT) Principal Investigator and Historian for a Phase I Historic Architectural Resource Inventory of a formerly rural but now heavily developed 5-mile-long corridor. The Phase I work eliminated 25 resources from intensive study and identified 4 resources that required Phase II National Register evaluations. The phased approach allows project planning and design to proceed in areas without historic sensitivity.

Mount Ararat African American Episcopal Church, Wilmington, New Hanover County, NC (Sponsor: NDOT) Principal Investigator and Historian for this multi-part mitigation of a Reconstruction-era African American church and cemetery. Authored NRHP nomination text for the church, former school site, and adjacent cemetery. Provided background on folk burial practices in the eastern Coastal Plain for the ground-penetrating radar cemetery survey and authored an illustrated public history booklet about the history of the Middle Sound community entitled "Kin, Kindred, Relatives and Friends." Work on this project identified a potentially eligible resource, the Nixon Oyster Plant, which had been omitted in previous planning surveys.

Appendix B: Cemetery Glossary

Cemetery Glossary

The glossary terms has been taken from the National Register bulletin *Guidelines for Evaluating and Registering Cemeteries and Burial Places*; *A Graveyard Preservation Primer*; The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Historic Landscapes*; *Grave Concerns: A Guide for Conserving Historic Cemeteries*; *Landscapes of Memories: A Guide to Conserving Historic Cemeteries, Repairing Tombstones*; and *Michigan Historic Cemeteries Preservation Guide*.

Altar tomb

a solid, rectangular, raised tomb or grave marker resembling ceremonial altars of classical antiquity and Judeo-Christian ritual.

Artificial stone

a term used to describe various materials also known as art marble, artificial marble, cast stone, and composite stone. Some mixture of stone chips or fragments is generally embedded in a matrix of cement or plaster, and the surface may be ground, polished, molded, or otherwise treated to simulate stone.

Bedding

the manner or direction in which bedding planes (layers, stratification or direction in which a stone is formed) are laid when a stone is in use. Bedding is a condition that is typically seen in sedimentary stones such as sandstone and limestone. Stone monuments have bedding planes that are either horizontal (naturally bedded), vertical and parallel (face bedded), or perpendicular (edgebedded) to the exposed surfaces. Most historic slab grave markers have a bedding that is vertical and parallel to the face; it is easiest to split a stone along the natural bedding planes and turn it upright to create a grave marker.

Bevel marker

a rectangular grave marker, set low to the ground, having straight sides and uppermost, inscribed surface raked at a low angle.

Blistering

Swelling and rupturing of a thin, uniform layer of stone are usually found on sandstone, but also on granite. It is generally caused by salts and/or moisture and can occur either across or parallel to bedding planes.

Block markers

made of granite and the type of marker most used today. Most are made of granite, and age can be determined by the amount of engraving found on the stones. The early twentieth century block markers began with few images, but as time proceeded lasers were used to create individual and elaborate designs of portraits of the deceased and activities that they held dear such as hunting, traveling and other worldly pursuits.

Bluestone

a trade term applied to hard, fine-grained, commonly feldspathic and micaceous sandstone or siltstone of dark greenish to bluish gray color that splits readily along bedding planes to form thin slabs. Commonly used to pave surfaces for pedestrian traffic, this material may occasionally be seen in gravestones.

Box tomb

a grave monument resembling a box, usually about three feet by six feet and two feet by three feet high, making an individual grave, or occasionally a family or other multiple burial. Such structures may be known locally as crypts; burial, however, is generally below ground with construction taking place following burial.

Brownstone

a trade term applied to ferruginous dark brown and reddish-brown sandstone quarried and extensively used for building in the eastern United States during the middle and late nineteenth century. Most later use has been for renovation, repair, or additions to structures in which the stone was originally used. In gravestones, most commonly used as bases, although common in some areas, such as the Connecticut River Valley, for table stones as well.

Burial cache

a place of concealment for burial remains and objects.

Burial mound

a mass of earth, and sometimes stone or timber, erected to protect burial chambers for the dead.

Burial site

a place for disposal of burial remains, including various forms of encasement and platform burials that are not excavated in the ground or enclosed by mounded earth.

Burial vaults

unseen underground brick boxes the size of the deceased. The top, seen as a hump the length of the body, is sometimes covered by plaster or cement. The ends may encase a marker for the deceased. These are much like the modern-day concrete burial vaults. The barrel vault was generally made for the wealthy. It is believed to be an English contribution.

Calcite

a mineral form of calcium carbonate. It is the principal constituent of most limestone.

Carin

a mound of stones marking a burial place.

Cemetery

an area set aside for burial of the dead; in Latin American culture known as campo santo, or holy field.

Cenotaph

a monument, usually of imposing scale, erected to commemorate one whose burial remains are at the separate location; literally empty tomb.

Character-defining feature

a prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details and materials may be such features.

Chest marker

a solid, rectangular, raised grave marker resembling a chest or box-like sarcophagus. (1.)

Cinerary urn

a receptacle for cremation remains, or ashes, in the shape of a vase.

Columbarium

a vault or structure for storage of cinerary urns.

Columns

pedestal monuments, once a sign of victory by the Romans (Column of Trajan), are used in cemeteries as a symbol of mortality. Columns were seen as more versatile than an urn or an individual likeness. The base could be used to house the body of the deceased. Most columns found in American cemeteries were erected between 1870 and 1900.

Component landscape

a discrete portion of the landscape, which can be further, subdivided into individual features. The landscape unit may contribute to the significance of a National Register property, such as a farmstead in a rural historic district. In some cases, the landscape unit may be individually eligible for the National Register of Historic Places, such as a rose garden in a large urban park.

Cracks

Narrow fissures or fractures in the stone. Each occurrence should be identified and documented.

Crematorium

a furnace for incineration of the dead; also crematory.

Crumbing

the effects of weather or trapped moisture in a stone. Can appear to be grains of sand eroding from the stone.

Crypt

an enclosure for a casket in a mausoleum or underground chamber, as beneath a church.

Cultural landscape

a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.

Delamination

condition that occurs when a stone breaks or separates along bedding planes usually resulting in breakage of those areas. This is most prevalent on slate and sandstone.

Displaced

original placement is important if the cemetery chooses to seek listing in the National Register of Historic Places. If the stones have been moved, it is no longer a marker. The displaced stone becomes a memorial since it no longer serves the original purpose. There are different reasons that stones may be rearranged. If the row alignment seems a bit too perfect or if the stones are arranged in an odd pattern, such as a circle, most likely all of the stones in a site have been moved.

Dolomite rock

consisting mainly of magnesium carbonate and calcium carbonate; limestone or marble with much magnesium carbonate in it.

Dolomite limestone

limestone that contains more than ten percent but less than eighty percent of the mineral dolomite.

Efflorescence

Deposits of white salts on the surface of stone. It is an encrustation of soluble salts that could be caused by the use of fertilizers and weed-killers, air or water pollution, use of gray Portland cement in concrete and mortars, and some cleaning compounds. These salt deposits are called "efflorescence" when they occur on

the surface of the stone and “subflorescence” when beneath the surface. Efflorescence is a critical sign that the stone is endangered. Often caused by free alkalis leached from mortar or adjacent concrete.

Epitaph

an inscription on a grave marker identifying and/or commemorating the dead.

Erosion/sugar decay

a fine white, gritty substance that is produced on marble markers. Gradual wearing away of the surface, resulting in rounded, blurred edges, and damage to carved details. Erosion is caused by the natural abrasion of wind and wind-blown particles, and also by dissolution of the surface by acidic rainfall.

Exedra

a permanent open air masonry bench with a high back, usually semicircular in plan, patterned after the porches or alcoves of classical antiquity where philosophical discussions were held; in cemeteries, used as an element of landscape design and as a type of tomb monument.

Exfoliation

the peeling or scaling of stone surfaces caused by chemical or physical weathering.

Face

the visible surface of stone masonry after setting. In gravestones, commonly the carved surface of table stones and slabs.

Fallen

Stones that have fallen are susceptible to accelerated damage and deterioration and should be righted.

Family cemetery

a small private burial place for members of the immediate or extended family; typically found in rural areas, and often, but not always, near a residence; different from a family plot, which is an area reserved for family members within a larger cemetery.

Feature

the smallest element(s) of a landscape that contributes to the significance and that can be the subject of a treatment intervention. Examples include a woodlot, hedge, lawn, specimen plant, alee, house, meadow or open field, fence, wall, earthwork, pond or pool, bollard, orchard, or agricultural terrace.

Fillett

a concave filling-in (e.g., with mortar) of a reentrant angle where two surfaces meet.

Flaking

a term commonly used regarding gravestones to indicate minor delamination of surfaces or otherwise unsound stone, which easily peels off in small sheets or layers.

Flat markers

often made of metal and placed flush with or embedded in the ground. This style of marker is generally found in twentieth century cemeteries. This style became popular with perpetual care sites, for they allow mowing with ease.

Flush marker

a flat, rectangular grave marker set flush with the lawn or surface of the ground.

Footstone

a marker used in the seventeenth and eighteenth century when both a stone at the head and a stone at the foot marked the grave. Footstones are smaller and more simply inscribed than their headstones. If they bear any carving, it is usually only the name or initials of the deceased, perhaps the death date, and sometimes a simple decorative design.

Fragments

Small pieces of broken stone.

French Drain

a trench filled with gravel and topped with sand used for eliminating excess water from low points and other areas with water-saturated soil.

Gneiss

coarse-grained metamorphic rock with discontinuous foliation. When used for building stone, generally classed as trade granite. Most gneiss is dark and composed mainly of quartz, feldspar, mica, and ferromagnesian minerals (iron-magnesium silicates).

Granite

defined geologically as igneous rock with crystals or grains of visible size and consisting mainly of quartz and the sodium or potassium feldspars. In building stone and gravestones, crystalline silicate rock with visible grains. The commercial term includes gneiss and igneous rocks that are not granite in the strictest sense.

Grave

a place or receptacle for burial.

Gravemarker

a sign or marker of a burial place, variously inscribed and decorated in commemoration of the dead.

Grave shelter

a rectangular, roofed structure usually of wood, covering a gravesite, enclosed by boards or slats or supported by poles; in tribal custom used to contain burial offerings and shelter the spirit of the dead; also grave house.

Graveyard

an area set aside for burial of the dead; a common burying ground of a church or community.

Gypsum Crust

Common to marble and limestone. Decay caused by the acidic gases in the air. It is a black crust that, when removed, exposes the softer stone underlayment.

Headstone

an upright stone marker placed at the head of the deceased; usually inscribed with demographic information, epitaphs, or both; sometimes decorated with a carved motif.

Igneous

rocks those formed by change of the molten material called magma to the solid state. The igneous rocks are one of three generic classes of rocks (igneous, sedimentary, and metamorphic). Various igneous rocks, generally termed granite if coarse grained, are used for building stone and gravestones.

Incised carving

engraving that is ornamentation made by cutting into the stone.

In place (in situ)

the original location of a gravestone.

Integrity

the authenticity of a property's historic identity, evinced by the survival of physical characteristics that existed during the property's historic or prehistoric period. The seven qualities of integrity as defined by the National Register Program are location, setting, feeling, association, design, workmanship, and materials.

Interment

a burial; the act of committing the dead to a grave.

Laminated stone

stone consisting of thin sheets; stone built up in layers, such as slate.

Ledger

a large rectangular grave marker usually of stone, set parallel with the ground to cover the grave opening or grave surface.

Limestone

rock of sedimentary origin composed principally of calcite or dolomite or both. Limestone varies greatly in texture and porosity. It is usually white, gray or buff in color. Under normal conditions it weathers to a light silver gray or white depending on the stone variety but is usually darker in color than the bright white of marble. It is commonly used in gravestones and tomb structures.

Lych gate

traditionally, a roofed gateway to a church graveyard under which a funeral casket was placed before burial; also lich gate; commonly, an ornamental cemetery gateway.

Macadam

named after John L. Macadam (1756-1836), Scottish engineer who invented the process of using broken stones for roads.

Marble

geologically a metamorphic rock made up largely of calcite or dolomite. It is formed as a result of the recrystallization of limestone under the intense pressure of geologic processes. As used commercially, the term includes many dense limestones, and some rock dolomites. Numerous minerals may be present in minor to significant amounts in marble, and their presence and distribution account for much of the distinctive appearance that many marbles possess. The color of marble ranges from the brilliant white of calcite to black, blue-gray, red, yellow, and green, depending on the mineral composition. It is the predominant stone for gravestones in the nineteenth century.

Mausoleum

a monumental building or structure for burial of the dead above ground; a "community" mausoleum is one that accommodates a great number of burials.

Memorial

an object whose purpose it is to commemorate a person or an event.

Metal corrosion

deterioration of a metal through a chemical or electrochemical reaction between the metal and oxygen (oxidation) or other substances (acids, salts, water, different metals in contact, and so on). Corrosion is

indicated by formation of the corrosion products (such as, rust on ferrous metals) or by loss of metal (pitting and so on).

Metamorphic rock

rock altered in appearance, density, and crystalline structure, and in some cases mineral composition, by high temperature or high pressure or both. Slate is derived from shale, quartzite from quartz, sandstone and true marble from limestone.

Mica

a group of silicate minerals characterized by nearly perfect basal cleavage (cleavage is the quality of a crystallized substance or rock of splitting along definite planes) causing them to split readily into extremely thin plates. They reflect light, causing a shiny or sparkly appearance. The micas are prominent constituents of metamorphic and igneous rocks. In gravestones, they are often apparent in brownstones.

Military cemetery

a burial ground established for war casualties, veterans, and eligible dependents. Those established by the federal government include national cemeteries, post cemeteries, soldiers' lots, Confederate and Union plots, and American cemeteries in foreign countries. Many states also have established cemeteries for them.

Monolith

a large, vertical stone grave marker having no base or cap.

Monument

a structure or substantial gravemarker erected as a memorial at a place of burial.

Mortuary

a place for preparation of the dead prior to burial or cremation.

Mower Scars

Abrasions caused by grass cutting equipment, usually near the bottom of the stone.

National cemetery

one of 130 burial grounds established by the Congress of the United States since 1862 for interment of armed forces servicemen and women whose last service ended honorably. Presently, the Department of Veterans Affairs maintains 114, the National Park Service (Department of the Interior) administers 14, and the Department of the Army has responsibility for two.

Obelisk

a four-sided, tapering shaft having a pyramidal point; a grave marker type popularized by romantic taste for classical imagery in the nineteenth century.

Peristyle

a colonnade surrounding the exterior of a building, such as a mausoleum, or a range of columns supporting an entablature (a beam) that stands free to define an outdoor alcove or open space.

Potter's field

a place for the burial of indigent or anonymous persons. The term comes from a Biblical reference: Matthew 27:7.

Receiving tomb

a vault where the dead may be held until a final burial place is prepared; also receiving vault.

Relief carving

ornamentation projecting forward from a surface usually shallow or, occasionally in gravestones, deep carving.

Rising damp

moisture carried upward through porous stone by capillary action. Soluble salts in the ground beneath a gravestone may be introduced into a stone through this process. If the salts crystallize within the pores of the stone, the action may cause the surface to break off, known as spalling; if the salts are carried to the surface of the stone and then crystallize on it, efflorescence is formed.

Rostrum

a permanent open-air masonry stage used for memorial services in cemeteries of the modern period, patterned after the platform for public orators used in ancient Rome.

“Rural cemetery”

a burial place characterized by spacious landscaped grounds and romantic commemorative monuments established in a gardenlike setting in the first half of the nineteenth century. Mount Auburn Cemetery (1831) near Boston was the first cemetery developed in this tradition.

Sandstone

sedimentary rock composed of sand-sized grains naturally cemented by mineral material. In most sandstone used for building and gravestones, quartz grains predominate. Sandstone is typically buff, gray, brown, red, purple or pink in color; the latter four colors are commonly called brownstone. Some sources of sandstone in the Midwest and Canada were: Medina varieties in southern Ontario (red-brown, gray or mottled); Ohio sandstone from the Berea beds south of Cleveland (light gray or buff); Ohio Briar Hill sandstone (variegated rusty color); and Michigan Lake Superior sandstone (red).

Sarcophagus

a stone coffin or monumental chamber for a casket.

Scaling

advanced loss of stone, which may vary in depth.

Schist

a metamorphic rock with continuous foliation. It splits along foliation and is occasionally used for gravestones.

Screen memorial

a vertically set gravemarker consisting of a tablet with wing elements resting on a continuous base.

Sedimentary

rock formed from materials deposited as sediments, in the sea, in fresh water, or on the land. The materials are transported to their site of deposition by such forces as running water, wind, or moving ice. They may deposit as fragments or by precipitation from solution. Limestone and sandstone are the sedimentary rocks most used for building and gravestones.

Sepulcher

a burial vault or crypt.

Shale

rock of clay origin, easily split into layers. It is occasionally used for gravestones.

Shelter house

a pavilion or roofed structure, frequently open at the sides, containing seats or benches for the convenience of those seeking a place to rest; erected in rustic and classical styles to beautify a cemetery landscape.

Slant marker

a rectangular grave marker having straight sides and inscribed surface raked at an acute angle.

Slate

a hard, brittle metamorphic rock consisting of clay minerals and characterized by good cleavage (cleavage is the quality of a crystallized substance or rock of splitting along definite planes) that is unrelated to the bedding in the earlier shale or clay from which it formed. It was a popular gravestone material of the eighteenth century, particularly in coastal areas. Many of the best-preserved examples of gravestone art are found in slate, an extremely stable stone.

Soapstone

massive soft rock that contains a high proportion of talc. It is occasionally used in gravestones.

Soiled/stained/discolored

Discoloration of the stone caused by vegetation, fungus, pollution or chemical reaction should be noted and any indication of the cause of staining should be noted. Different stains require different approaches to cleaning.

Soundness

the quality of a stone exhibits no sign of damage.

Spall

occurs when part of the stone flakes or splits away through frost action or pressure. As a noun, a chip or flake of stone.

Stele

an upright stone or commemorative slab commonly inscribed or embellished on one of the broader vertical surfaces; a grave marker type revived from classical antiquity.

Sugaring

granular, sometimes powdery, condition that is characteristic of some stone, particularly fine-grained marbles and limestone. Sugaring indicates gradual surface disintegration.

Surface crusts

hard crusts that develop through movement of moisture towards the surface and outer edges of stone and deposition of dissolved material in those areas. Dark-colored crusts on sandstone result from a chemical reaction of the stone to airborne pollutants and often indicates disintegration of the stone behind the crust.

Table marker or stone

a rectangular grave covering consisting of a horizontal stone slab raised on legs, which sometimes are highly elaborate; also "table stone."

Tablet stone

a stone grave marker consisting of a single piece of stone usually not more than three inches thick and set vertically in the ground; to be distinguished from a table stone or vault.

Tilted/sunken

extent to which a stone is sunken or tilted will determine the priority it will be given for resetting.

Tomb

a burial place for the dead.

Tomb recess

a niche or hollow in a wall that shelters a tomb.

Tympanum

a semicircular (or occasionally triangular) decorated face at the top of a tablet stone.

Vault

a burial chamber, commonly underground.

Appendix C: PHMC Cemetery Site Form (blank)

N.B. CRGIS is referenced throughout the document but no longer exists as a state system. All references should be to PA-SHARE (<https://www.phmc.pa.gov/PA-SHARE/Pages/PA-SHARE-FAQ.aspx>). Consultation with the PHMC may be required to determine the current best way to submit this form.

Site Code:
(Assigned by CRGIS)

**Pennsylvania Bureau of Historic Preservation
Cemetery Main Survey Form**

The **Location and Contact Information** section and **PART I** of the survey are required for completion (it is understood that certain information may not be attainable within these sections). **PART II** is optional, but does offer pertinent information for cemetery recordation and provides a more full record which can aid in later restoration projects.

Location and Contact Information

Survey Date: _____
Historic Name: _____
Common Name: _____
County & Municipality: _____
Street Address (if applicable) (Street, Town, Zip Code): _____

Location Description (if no street address): _____

Proximity:

Nearest Town: _____
 Within town limits Within 1 mile of town 1-5 miles of town 5 or more miles

Context: commercial industrial residential rural urban

Owner: _____ Owner Address (Street, Town, Zip Code): _____

Contact: _____ Contact Address (Street, Town, Zip Code): _____

Tax Parcel Number: _____ Is the cemetery an out parcel in the tax records: yes no

Key #: _____

Year of death of first interred (oldest legible date): _____

Year of death of last interred: _____

Is the cemetery in a National Register Historic District? _____

Published References: _____

Name of individual or institution who holds information about the cemetery and what type of information they hold (please include contact information): _____

Surveyor: _____ Affiliation: _____

1. Attach a Narrative History, including ownership history (if known), historically significant individuals interred (in local, state, and national arenas), historical incidents of interests, and distinctive architectural features or monuments.

2. Attach a USGS map or city map denoting the cemetery location and boundaries.

PART I

3. Description:

Type of cemetery (check all that apply)

- | | | |
|--|---|--|
| <input type="checkbox"/> churchyard | <input type="checkbox"/> family | <input type="checkbox"/> national/military |
| <input type="checkbox"/> community | <input type="checkbox"/> military | <input type="checkbox"/> prison |
| <input type="checkbox"/> community/religious | <input type="checkbox"/> municipal | <input type="checkbox"/> religious* |
| <input type="checkbox"/> company town | <input type="checkbox"/> municipal/company town | <input type="checkbox"/> single plot |
| <input type="checkbox"/> epidemic | <input type="checkbox"/> national | <input type="checkbox"/> Other: _____ |

*If you checked religious, please indicate affiliation: _____

4. Design/style/layout:

- | | | |
|--|--|---------------------------------------|
| <input type="checkbox"/> Lawn Park | <input type="checkbox"/> Rural Cemetery Movement | |
| <input type="checkbox"/> Memorial Park | <input type="checkbox"/> No design evident | <input type="checkbox"/> Other: _____ |

5. Type of ownership:

- | | | |
|---------------------------------------|--|--|
| <input type="checkbox"/> city | <input type="checkbox"/> incorporated | <input type="checkbox"/> private-unspecified |
| <input type="checkbox"/> county | <input type="checkbox"/> Native American | <input type="checkbox"/> state |
| <input type="checkbox"/> federal | <input type="checkbox"/> private-nonprofit | <input type="checkbox"/> township |
| <input type="checkbox"/> Other: _____ | | |

6. Accessibility:

- | | | |
|--|-------------------------------------|--|
| A. <input type="checkbox"/> by permission only | <input type="checkbox"/> restricted | <input type="checkbox"/> unrestricted |
| B. <input type="checkbox"/> by footpath | <input type="checkbox"/> by road | <input type="checkbox"/> no defined access |

7. Size in feet (Dimensions of Perimeter): _____

8. Condition:

- | | | |
|---|---|-----------------------------------|
| <input type="checkbox"/> abandoned | <input type="checkbox"/> maintained, but not in use | <input type="checkbox"/> unmarked |
| <input type="checkbox"/> currently in use | <input type="checkbox"/> overgrown | |

PART II

9. Topography:

- | | |
|-----------------------------------|----------------------------------|
| <input type="checkbox"/> flat | <input type="checkbox"/> rolling |
| <input type="checkbox"/> hill top | <input type="checkbox"/> slope |

How does the cemetery sit in relation to the larger setting or landscape? _____
_____.

Natural Features, such as streams, gullies, hills, and indigenous vegetation: _____
_____.

Naturalistic developed features (man-made ponds, lakes, non-indigenous vegetation, or landforms): _____

_____.

10. Ethnic Group/Nationality Affiliation:

- | | | |
|---|--|---------------------------------------|
| <input type="checkbox"/> African American | <input type="checkbox"/> Irish | <input type="checkbox"/> Slavic |
| <input type="checkbox"/> Asian | <input type="checkbox"/> Italian | <input type="checkbox"/> Quaker |
| <input type="checkbox"/> German | <input type="checkbox"/> Jewish | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Hispanic | <input type="checkbox"/> Native American | <input type="checkbox"/> Other: _____ |

11. Grave Groupings (if present):

- | | | |
|--|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> ethnic heritage | <input type="checkbox"/> military | |
| <input type="checkbox"/> family | <input type="checkbox"/> occupation | |
| <input type="checkbox"/> fraternal order | <input type="checkbox"/> religious | <input type="checkbox"/> Other: _____ |

If grouped, explain how groups are delineated, such as by hedges, curbs, walls, or fences (if man-made, please indicate design or material, see options under cemetery boundaries): _____
_____.

12. Cemetery Boundaries:

- | | | |
|--------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> curb | <input type="checkbox"/> vegetation | <input type="checkbox"/> none |
| <input type="checkbox"/> fence | <input type="checkbox"/> wall | <input type="checkbox"/> Other: _____ |

If you checked fence, please indicate fence style:

- | | | |
|---|---|---|
| <input type="checkbox"/> bow & hairpin | <input type="checkbox"/> hairpin | <input type="checkbox"/> picket (metal) |
| <input type="checkbox"/> bow & picket | <input type="checkbox"/> hairpin & picket | <input type="checkbox"/> wood |
| <input type="checkbox"/> gas pipe railing | <input type="checkbox"/> milled point | <input type="checkbox"/> woven wire |
| <input type="checkbox"/> Other: _____ | | |

If you checked wall, please indicate building material:

- | | | |
|--------------------------------|--|---------------------------------------|
| <input type="checkbox"/> brick | <input type="checkbox"/> concrete (poured) | |
| <input type="checkbox"/> block | <input type="checkbox"/> stone | <input type="checkbox"/> Other: _____ |

13. Cemetery Accessories:

- | | | |
|--|--|---------------------------------------|
| <input type="checkbox"/> benches | <input type="checkbox"/> fountains | <input type="checkbox"/> planters |
| <input type="checkbox"/> directional markers | <input type="checkbox"/> ornamental sculpture | <input type="checkbox"/> None |
| <input type="checkbox"/> entrance signs | <input type="checkbox"/> outdoor lighting fixtures | <input type="checkbox"/> Other: _____ |

14. Circulation:

- | | | |
|--------------------------------------|----------------------------------|--|
| A. <input type="checkbox"/> pathways | <input type="checkbox"/> roads | <input type="checkbox"/> No paths or roads |
| B. <input type="checkbox"/> paved | <input type="checkbox"/> unpaved | <input type="checkbox"/> Other: _____ |

15. Associated Buildings:

- | | | |
|--|--|--|
| <input type="checkbox"/> caretaker's house | <input type="checkbox"/> gatehouse | <input type="checkbox"/> receiving vault |
| <input type="checkbox"/> chapel | <input type="checkbox"/> maintenance shed | <input type="checkbox"/> None |
| <input type="checkbox"/> crematorium | <input type="checkbox"/> receiving mausoleum | <input type="checkbox"/> Other: _____ |
-

Marker Information

(Please See Manual for differentiation between "Marker and Grave")

16. Number of markers (for large cemeteries estimate to closest ten and indicate estimates by writing "approx." before the number): _____

17. Age of Graves: (some early markers may be illegible; in section A, please note the number that cannot be dated)

A. Number of graves fifty years and older: _____, including _____ illegible

B. Number of graves less than fifty years old: _____

18. Graves are from this century: (check all that apply)

- | | | |
|--|---|---|
| <input type="checkbox"/> earlier than 18 th | <input type="checkbox"/> 19 th | <input type="checkbox"/> 21 st |
| <input type="checkbox"/> 18 th | <input type="checkbox"/> 20 th | |

19. Materials of markers:

- | | | |
|-------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> argillite | <input type="checkbox"/> granite | <input type="checkbox"/> limestone |
| <input type="checkbox"/> brick | <input type="checkbox"/> greenstone | <input type="checkbox"/> marble |
| <input type="checkbox"/> bronze | <input type="checkbox"/> iron – cast | <input type="checkbox"/> sandstone |
| <input type="checkbox"/> cast stone | <input type="checkbox"/> iron – galvanized | <input type="checkbox"/> slate |
| <input type="checkbox"/> concrete | <input type="checkbox"/> iron – wrought/rolled | <input type="checkbox"/> wood |
| <input type="checkbox"/> fieldstone | <input type="checkbox"/> lead | <input type="checkbox"/> zinc |
| | | <input type="checkbox"/> Other: _____ |

20. Marker types present:

Simple:

- | | | |
|--|--|--|
| <input type="checkbox"/> block | <input type="checkbox"/> cross | <input type="checkbox"/> obelisk |
| <input type="checkbox"/> bronze marker | <input type="checkbox"/> headstone w/ footstone | <input type="checkbox"/> slab over crypt |
| <input type="checkbox"/> column | <input type="checkbox"/> headstone w/o footstone | <input type="checkbox"/> stele |
| <input type="checkbox"/> Other: _____ | | |

Compound:

- | | | |
|---|--|---|
| <input type="checkbox"/> bedstead | <input type="checkbox"/> obelisk on base | <input type="checkbox"/> ped. w/other |
| <input type="checkbox"/> column on base | <input type="checkbox"/> pedestal | <input type="checkbox"/> pyramid |
| <input type="checkbox"/> cross on base | <input type="checkbox"/> ped. w/column | <input type="checkbox"/> stele/base |
| <input type="checkbox"/> headstone/base platform | <input type="checkbox"/> ped. w/obelisk | <input type="checkbox"/> table |
| <input type="checkbox"/> headstone/base w/footstone | | <input type="checkbox"/> Other on base: _____ |

Tomb:

- | | | |
|------------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> mausoleum | <input type="checkbox"/> wall vault | <input type="checkbox"/> Other: _____ |
|------------------------------------|-------------------------------------|---------------------------------------|

21. Orientation of markers:

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> East | <input type="checkbox"/> North-West | <input type="checkbox"/> South-West | <input type="checkbox"/> |
| North | <input type="checkbox"/> South | <input type="checkbox"/> West | |
| <input type="checkbox"/> North-East | <input type="checkbox"/> South-East | | |

Are the markers in original locations?

- | | |
|--|---|
| <input type="checkbox"/> yes | <input type="checkbox"/> some markers have been moved |
| <input type="checkbox"/> all markers have been moved | |

22. Marker image designs:

- | | | |
|---|---|---|
| <input type="checkbox"/> All-seeing eye | <input type="checkbox"/> Draped Urn | <input type="checkbox"/> Menorah |
| <input type="checkbox"/> Anchor | <input type="checkbox"/> Hands reaching down | <input type="checkbox"/> Star/Star of David |
| <input type="checkbox"/> Angel | <input type="checkbox"/> Hands w/ fingers pointing up | |
| <input type="checkbox"/> Bible | <input type="checkbox"/> Lamb | <input type="checkbox"/> Sleeping Child |
| <input type="checkbox"/> Cross | <input type="checkbox"/> Lily | <input type="checkbox"/> Upside-Down Torch |
| <input type="checkbox"/> Dove | <input type="checkbox"/> Masonic | <input type="checkbox"/> Weeping Willow |
| <input type="checkbox"/> Other: _____ | | |

23. Condition of markers: (Give approximate numbers)

- | | | |
|------------------------------|--|----------------------|
| inscriptions illegible _____ | inscriptions legible _____ | no inscription _____ |
| sunken/tilted stones _____ | fragments/pieces on the ground _____ | |
| broken, but standing _____ | damaged surfaces/chipped/cracked _____ | |
| laden with lichen _____ | graffiti _____ | failed repair _____ |

24. Signatures of architect/carvers: _____

25. Secondary Markers:

- endowed markers organizational markers none
 flags plates

26. Attach Pictures of Site (Standards are listed in instructions manual on pg. 15)

If you have further questions or require assistance please contact a representative of the CRGIS.

Upon completion, please retain a copy for your organization's records and email or send a hardcopy to the CRGIS (Cultural Resources Geographic Information System) department at RA-CRGIS@state.pa.us or

**CRGIS
Bureau of Historic Preservation
400 North Street
Harrisburg, PA 17120-005**

Appendix D: Current PHMC Archaeological Site Form for Byberry Burial Ground

PENNSYLVANIA ARCHAEOLOGICAL SITE SURVEY

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

SITE NAME Byberry Meeting African-American Cemetery SITE NUMBER 36Pl 92
CULTURAL PERIOD(S) 18th C.
TYPE OF SITE Cemetery PUBLISHED REFERENCES See ER file # 93-0685-101 & reports under same # by Berger + Milner
COUNTY Philadelphia TWP. _____ NEAREST TOWN _____
OWNER _____ ADDRESS _____
TENANT _____ ADDRESS _____

MAP REFERENCE: MEASURE IN CENTIMETERS FROM THE BOTTOM PRINTED EDGE UPWARD, AND THE RIGHT PRINTED EDGE ACROSS

7.5 QUAD NAME Berwyn EDITION _____ UP _____ ACROSS _____
U.T.M. COORDINATES: ZONE _____ NORTHING _____ EASTING _____
PHYSIOGRAPHIC PROVINCE _____ MAP ELEVATION _____
TOPOGRAPHIC SETTING _____

SLOPE DIRECTION AND DEGREE _____ CULTIVATION _____

SOIL TYPE _____

BEDROCK _____

IMMEDIATE VEGETATION _____ PRIMARY DRAINAGE _____

NEAREST WATER _____
(NATURE AND DISTANCE)

2ND NEAREST WATER _____
(NATURE AND DISTANCE)

TESTED (X) _____ EXCAVATED _____ BY _____

STRATIFIED (X) YES _____ NO _____ UNKNOWN _____ DEPTH OF STRATA _____

FEATURES _____

COLLECTION LOCATIONS _____

INFORMANTS _____

CRITERIA FOR NATIONAL REGISTER INCLUSION _____

POSSIBILITY OF DESTRUCTION _____

SUBMITTED BY A. Hyatt / PHMC ADDRESS _____

CITY _____ STATE _____ DATE _____

S.P.A. CHAPTER AFFILIATION _____

P.A.S.S. REMARKS _____

**SKETCH MAP OF SITE (WITH SOME POINT OF REFERENCE: HOUSE, ROAD, ETC., WHICH CAN BE RELATED TO THE 7.5 MIN. U.S.G.S. MAP, INCLUDING A SCALE AND APPROXIMATE ACREAGE).
NUMBER OF SQUARE FEET _____**

LIST SPECIFIC CULTURAL COMPONENTS AND THEIR PRIMARY IDENTIFYING ARTIFACTS.

SKETCHES (WITH SCALE) OF MAJOR OR REPRESENTATIVE PROJECTILE POINT SHAPES.

LITHIC MATERIAL BY PERCENTAGE.