

**ARCHAEOLOGICAL MONITORING
FIRST REFORMED CHURCH OF NEW BRUNSWICK
CITY OF NEW BRUNSWICK, MIDDLESEX COUNTY
NEW JERSEY**

Prepared for:

**Town Clock Community Development Corporation
c/o First Reformed Church
9 Bayard Street
New Brunswick, NJ 08901**

and

**Bergen County United Way
6 Forest Avenue
Paramus, NJ 07652**

Prepared by:

**Richard Hunter, Ph.D., RPA
Joshua Butchko, M.A., RPA**

AUGUST 2019

MANAGEMENT SUMMARY

This report presents the results of a program of archaeological monitoring and related archaeological investigations performed in 2015 in conjunction with the rehabilitation and adaptive reuse of the First Reformed Church of New Brunswick in the City of New Brunswick, Middlesex County, New Jersey. The First Reformed Church is listed in the New Jersey and National Registers of Historic Places, being referred to in both designations as the First Dutch Reformed Church. Archaeological studies were required in this instance as part of project compliance with the New Jersey Register of Historic Places Act. This work was carried out by Hunter Research, Inc. under contract to the Bergen County United Way and the Town Clock Community Development Corporation on behalf of the First Reformed Church.

The alteration of the church building was recognized as having the potential to affect archaeological resources associated with the property's more than a quarter millennium history of land use. In particular, the substantial reconfiguration of the church's interior space and the placement of a two-story addition against its exterior western wall were both thought likely to result in archaeological resources being encountered. It was especially appreciated that excavations for the construction of foundations for the two-story addition might happen upon human remains, despite the absence of visible gravestones and the fact that none were marked on existing plot maps.

During the design phase of the project in 2013, Hunter Research undertook archaeological testing on the site of the two-story addition erected against the west wall of the church. These investigations, which encountered human remains and resulted in minor redesign, were separately reported in two brief documents prepared by Hunter Research in June and August of 2013. The archaeological work described and interpreted in the current report mostly concerns the monitoring of ground-disturbing activity during demolition and construction, notably within the church interior, but also at select locations outside the building where utility installations, construction of an ADA ramp, and removal and planting of trees took place.

Archaeological monitoring of the demolition and new construction within the interior of the church resulted in the recovery of a wealth of structural information pertaining to the construction of the existing church building in 1811-12 and its subsequent alteration in the later 19th and 20th centuries. In addition, traces of the original church erected on the site in 1767, a smaller structure, were also observed within the footprint of the existing church. No evidence for human burials was documented within the footprint of either church.

A combination of archaeological monitoring, testing and limited excavation were conducted immediately west of the church and immediately outside the northeast corner of the building extending eastward to Neilson Street. This work focused principally on establishing whether or not human burials were present in locations of likely project impact. One apparently intact human burial was encountered west of the church. This interment was minimally exposed and then reburied, with the new construction being adjusted to avoid further impact. The unmarked burial is most likely the remains of a member of the Clark-De Forest family, which owns the burial

MANAGEMENT SUMMARY (CONTINUED)

plot closest to this spot. No other *in-situ* human remains were documented west of the church, in a series of six sonotube locations off the southwest corner of the church, or in various shovel tests and monitoring work completed between the northeast corner of the church and Neilson Street.

TABLE OF CONTENTS

	<i>page</i>
Management Summary	i
Table of Contents	iii
List of Figures.....	v
List of Photographs.....	vii
Acknowledgments.....	ix
1. INTRODUCTION	
A. Project Background.....	1-1
B. Site Description.....	1-6
C. Previous Research and Principal Sources of Information	1-6
2. HISTORICAL BACKGROUND.....	2-1
3. ARCHAEOLOGICAL MONITORING OF DEMOLITION AND EXCAVATIONS IN THE CHURCH INTERIOR	
A. Monitoring of Demolition of the First-Floor Framing and Foundations	3-1
1. Second-Floor Balcony	3-1
2. Central Aisle and Main Seating Area in the Auditorium.....	3-5
3. Sanctuary and Dais	3-5
B. Monitoring of Excavations for New First-Floor Framing and Foundations	3-14
1. Trenches 1-7.....	3-14
2. Pier Footings 1-19.....	3-34
3. Basement and Elevator Excavation Areas	3-42
4. Utility Excavation Area	3-49
4. ARCHAEOLOGICAL MONITORING OF EXCAVATIONS IN THE CHURCHYARD	
A. Burial Marker Relocation and Excavation Units 3-8	4-1
B. Phase I Shovel Testing and Monitoring of Trench 8	4-18
C. Monitoring of ADA Ramp Footing Excavations (Sonotube Pits 1-6).....	4-21
5. CONCLUSIONS	
A. The Church Interior	5-1
B. The Churchyard.....	5-3
REFERENCES	R-1

TABLE OF CONTENTS (CONTINUED)

	<i>page</i>
APPENDICES	
A. Archaeological Monitoring Protocol	
B. Summary of Subsurface Testing	
C. Artifact Inventory	
D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015.....	
E. Human Remains Identified During Archaeological Monitoring in 2015	
F. Materials Sampled During Archaeological Monitoring of Church Interior in 2015.....	
G. Resumes	
H. New Jersey Historic Preservation Office Bibliographic Abstract	
I. Project Administrative Data	

LIST OF FIGURES

	<i>page</i>
1.1. Location of Project Site	1-2
1.2. Aerial Photograph Showing Location of Project Site.....	1-3
1.3. Site Plan Showing Proposed Construction, Utilities Installations and Landscape Modifications	1-5
2.1. Artist’s Rendering of the First Dutch Reformed Church, <i>circa</i> 1790	2-4
2.2. A Map of the Corporation of the City of New Brunswick, 1784.....	2-5
2.3. Marcellus, Terhune & Letson, <i>New Brunswick from an Actual Survey</i> , 1829	2-7
2.4. Otley and Keily, Detail of Plan of New Brunswick, <i>Map of Middlesex County, New Jersey</i> , 1850	2-8
2.5. Walling, Henry F., Detail of Plan of New Brunswick, <i>Map of the County of Middlesex, New Jersey</i> , 1861	2-9
2.6. Everts & Stewart, Detail of New Brunswick City, Third and Fourth Wards, <i>Combination Atlas Map of Middlesex County, New Jersey</i> , 1876.....	2-10
2.7. Sanborn Map Company, Sheet 8, <i>Insurance Maps of New Brunswick, New Jersey</i> , 1886.....	2-11
3.1. Plan of church interior showing location of key subfloor structural support features prior to demolition and excavation	opposite 3-2
3.2. Title Page from a Ross Valve Co. Catalog.....	3-9
3.3. Diagram Showing the Water-Powered Operation of the 1887 Felgemaker Pipe Organ	3-10
3.4. Plan of the Church Interior Showing the Location of Excavations for the New First-Floor Framing and Foundations.....	opposite 3-14
3.5. Church Interior, Trench 1, South Profile	opposite 3-14
3.6. Church Interior, North Wall Elevation in Trench 1	opposite 3-14
3.7. Church Interior, Trench 2, North Profile	opposite 3-18
3.8. Church Interior, South Wall Elevation in Trench 2	opposite 3-18
3.9. Cross-Section Through West Wall of Church Showing Interior and Exterior Elevations	3-23
3.10. Church Interior, West Wall, Partial Elevation.....	3-24
3.11. Church Interior, Trench 4, West Profile.....	opposite 3-28
3.12. Church Interior, Trench 5, West Profile, Northern Portion.....	3-29
3.13. Church Interior, Pier Footing 1, North and East Profile.....	3-36
3.14. Church Interior, Elevator Shaft Excavation Area, Partial Plan.....	3-47
4.1. Plan of Churchyard Showing Excavation Locations	opposite 4-2
4.2. Churchyard, Excavation Unit 3 Extension, East Profile	4-4
4.3. Churchyard, Excavation Unit 4, North and West Profiles.....	4-7
4.4. Churchyard, Excavation Unit 4, Plan	4-9
4.5. Churchyard, Excavation Unit 5, West Profile.....	4-12
4.6. Churchyard, Excavation Unit 7, North Profile	4-14

LIST OF FIGURES (CONTINUED)

	<i>page</i>
4.7. Churchyard, Excavation Unit 8, North Profile	4-16
4.8. Churchyard, Trench 8, South Profile	opposite 4-20
4.9. Churchyard, Sonotube Pits 1-6, East Profile	4-22
5.1. The 1767 Church and Some Broad Parallels	opposite 5-2

LIST OF PHOTOGRAPHS

	<i>page</i>
1.1. East façade of the First Reformed Church of New Brunswick, 1960	1-7
1.2. Rear view of the First Reformed Church of New Brunswick and surrounding churchyard, 1960.....	1-8
1.3. Interior of the auditorium at the First Reformed Church of New Brunswick, 1960.....	1-9
3.1. Floor joists and foundations supporting the first floor of the church auditorium and sanctuary.....	3-2
3.2. Removal of the demolished first-floor foundations.....	3-3
3.3. Auditorium after removal of the first-floor foundations	3-4
3.4. Partially removed foundations for the dais in the sanctuary	3-7
3.5. Ross Valve Manufacturing Company water engine.....	3-8
3.6. Water engine at St Michael's & All Angels Church in Averham, Nottinghamshire, England.....	3-11
3.7. Grave marker fragments recovered during the dismantling of the foundations.....	3-12
3.8. Grave marker fragment inscribed with practice or guide letters of the alphabet.....	3-13
3.9. Trench 1 fully excavated.....	3-15
3.10. Foundation for north wall and robber trench in Trench 1	3-16
3.11. Trench 2 fully excavated.....	3-18
3.12. Foundation for south wall and robber trench in Trench 2	3-19
3.13. Foundation for south wall in western end of Trench 2.....	3-20
3.14. Foundation for south wall in eastern end of Trench 2.....	3-21
3.15. Northern end of Trench 3 in the northwest corner of the auditorium	3-25
3.16. Part of the church's west wall and foundation.....	3-26
3.17. Robber trench in the west profile of the northern section of Trench 4	3-28
3.18. West profile at the north end of Trench 5	3-30
3.19. South profile of Trench 6 with robber trench	3-32
3.20. Mortared stone footings along the north profile of Trench 7	3-33
3.21. Church interior at the start of pier footing excavations.....	3-35
3.22. North profile of the excavation for Pier Footing 1	3-37
3.23. Mortared stone footing for column supporting the second-floor balcony along main aisle	3-38
3.24. Completed excavation for Pier Footing 8.....	3-39
3.25. East wall of auditorium and excavations for Pier Footings 9, 14 and 17.....	3-40
3.26. North profile of excavation pit for Pier Footing 15.....	3-41
3.27. Part of the north profile of excavation pit for Pier Footing 16.....	3-43
3.28. Fully excavated Basement Excavation Area at western end of the auditorium	3-44
3.29. Basement Excavation Area with installation of new footings in progress	3-45
3.30. Excavation of Elevator Excavation Area in progress	3-46
3.31. Progress of interior construction following excavation monitoring	3-48
3.32. Western end of the Utility Excavation Area in the church foyer.....	3-50

LIST OF PHOTOGRAPHS (CONTINUED)

	<i>page</i>
4.1. Excavations for relocation of two burial markers	4-2
4.2. Excavation Unit 3 Extension.....	4-5
4.3. Excavation Unit 4	4-6
4.4. Burial in Excavation Unit 4	4-10
4.5. Excavation Unit 5.....	4-13
4.6. Excavation Unit 7.....	4-15
4.7. Excavation Unit 8.....	4-17
4.8. Shovel Test 1 alongside east wall of church.....	4-19
4.9. Trench 8 fully excavated.....	4-20
4.10. Sonotube Pits 1-6	4-23

ACKNOWLEDGMENTS

This program of archaeological monitoring and testing at the First Reformed Church of New Brunswick was funded by Bergen County's United Way and the Town Clock Community Development Corporation. We wish to express our thanks to the Reverend Susan Kramer-Mills, Executive Director of the Town Clock Community Development Corporation, who oversaw all aspects of this work and shepherded this report to its final completion some four years after the fieldwork was undertaken. We also appreciate the assistance of Jeff Lewis, Director of Special Projects & Development at Bergen County's United Way, who administered much of the archaeological work during the construction of Dina's Dwellings.

The assistance of the staff of the New Jersey Historic Preservation Office has been vital to the successful completion of the various archaeological activities conducted for this project and we acknowledge, in particular, the efforts and guidance of: Katherine Marcopul, Ph.D., Administrator and Deputy Historic Preservation Officer; her predecessor, Daniel Saunders; Jesse West-Rosenthal, Ph.D., Historic Preservation Specialist 2; and Meghan Baratta, Supervising Historic Preservation Specialist. Funding for the Dina's Dwellings project was also provided through a grant from the New Jersey Historic Trust and we are appreciative for the advice and interest in our work received from Glenn Ceponis, Principal Historic Preservation Specialist.

Overall direction for the fieldwork aspect of these investigations and for project coordination prior to 2016 was provided by Ian Burrow. Subsequent project coordination and direction of the analysis and report preparation tasks were undertaken by Richard Hunter. Archaeological field monitoring in 2015 was largely undertaken by Joshua Butchko, Senior Archaeologist/Principal Investigator, with assistance from Jamie Ancheta, Elizabeth Cottrell, Jack Cresson, William Liebeknecht and Matthew Pihokker. Artifact analysis and cataloging were completed by Jamie Ancheta and Dorothy Both under the overall supervision of Joshua Butchko. Drafting of graphics for the final report was completed by Evan Mydlowski with assistance from Elizabeth Cottrell and Matthew Pihokker under the direction of Richard Hunter. Final report coordination and assembly were undertaken by Patricia Madrigal. This report was authored by Joshua Butchko and Richard Hunter and edited by Richard Hunter.

Richard W. Hunter, Ph.D., RPA
Principal

Chapter 1

INTRODUCTION

A. PROJECT BACKGROUND

This technical report presents the results of a program of archaeological monitoring and related archaeological investigations performed in 2015 in conjunction with the rehabilitation and adaptive reuse of the First Reformed Church of New Brunswick in the City of New Brunswick, Middlesex County, New Jersey (Figures 1.1 and 1.2). This work was carried out by Hunter Research, Inc. under contract to the Bergen County United Way and the Town Clock Community Development Corporation on behalf of the First Reformed Church. Archaeological studies were required in this instance as part of project compliance with the New Jersey Register of Historic Places Act (N.J.S.A. 13:1B-15, 128 *et seq.*) and its related regulations (N.J.A.C. 7:4-7.1[d]). The First Reformed Church was listed in the New Jersey Register of Historic Places on August 15, 1988 and in the National Register of Historic Places on December 8, 1988, being referred to in both designations as the First Dutch Reformed Church (NR Reference # 88001703; NJHPO ID# 1862).

The recently completed rehabilitation and adaptive reuse of the church formally originated with a preservation plan undertaken in 2007. This document provided a comprehensive study of the history, importance and preservation needs of the church buildings (Westfield Architects & Preservation Consultants 2007). In 2010 the Town Clock Community Development Corporation (TCCDC) was established to create “a housing, worship, arts and community complex in downtown New Brunswick by re-furbishing the buildings of First Reformed Church.” As part of this initiative, based on a design developed by DIGroup Architecture, the church building was converted in

2015-16 into a combination house of worship and affordable housing facility. The church now contains a modified auditorium and a cluster of ten permanent homes known as “Dina’s Dwellings,” specifically set aside for survivors of domestic violence (Town Clock Community Development Corporation 2019).

From the outset, the planned alteration of the church building was recognized as having the potential to affect archaeological resources associated with the property’s more than a quarter millennium history of land use. In particular, the substantial reconfiguration of the church’s interior space and the placement of a two-story addition against its exterior western wall were both thought likely to result in archaeological resources being encountered. It was also appreciated by the TCCDC that excavations for the construction of foundations for the two-story addition might happen upon human remains, despite the absence of visible gravestones and the fact that none were marked on existing plot maps.

In 2013, during the design phase of the project, Hunter Research undertook archaeological testing on the site of the two-story addition erected against the west wall of the church. This work, conducted in two separate episodes in May and July, found evidence for four unmarked burial shafts, but the project architects were able to redesign the structural support for the new addition so that these graves would not be impacted. These investigations are separately reported in two brief documents prepared in June and August of 2013 (Hunter Research, Inc., 2013a, 2013b).

The archaeological work described and interpreted in the current report mostly concerns the monitoring of ground-disturbing activity during demolition and

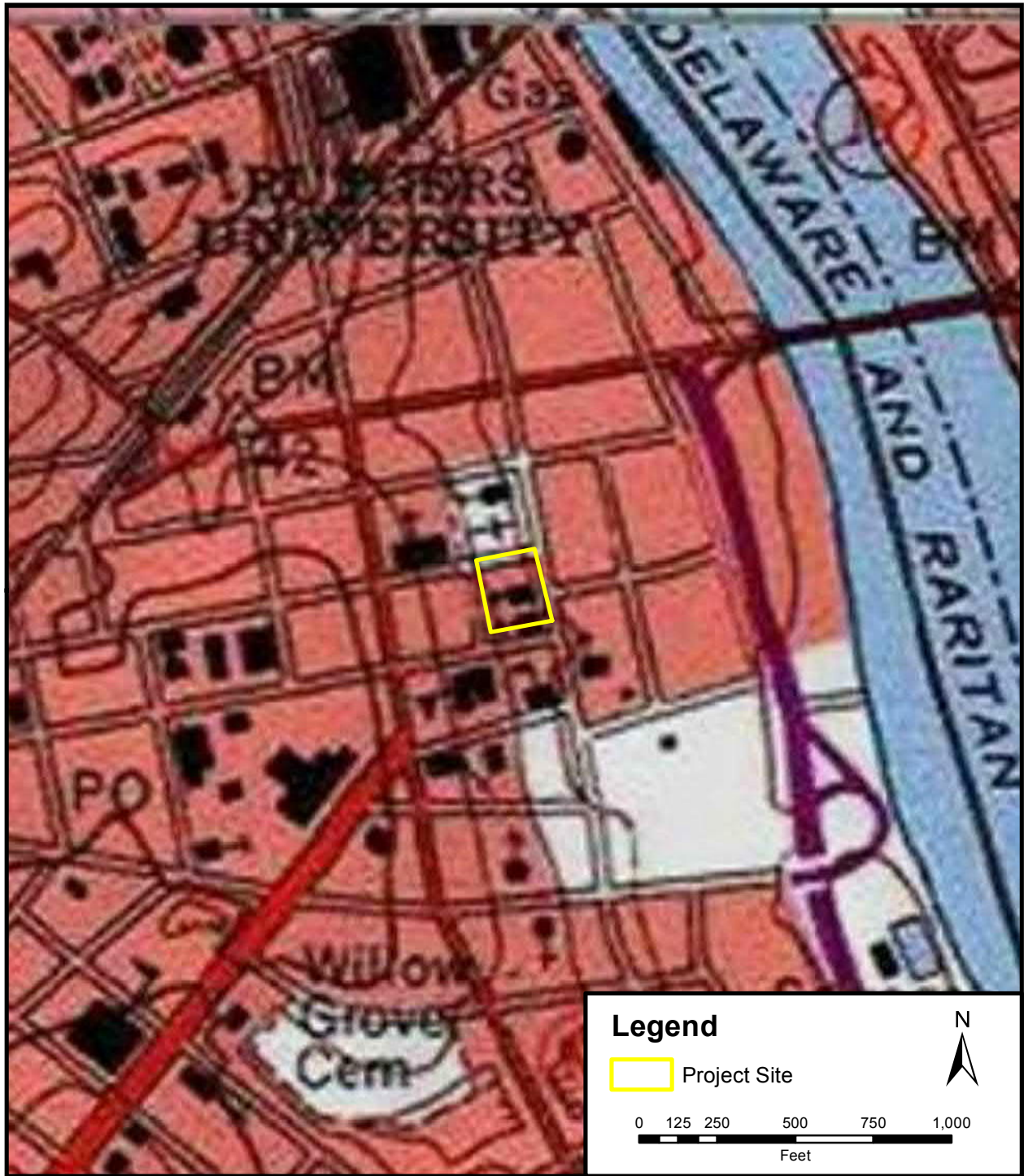


Figure 1.1. Location of Project Site (outlined). Source: USGS 7.5' New Brunswick, N.J. Quadrangle (1954 [photorevised 1981]).

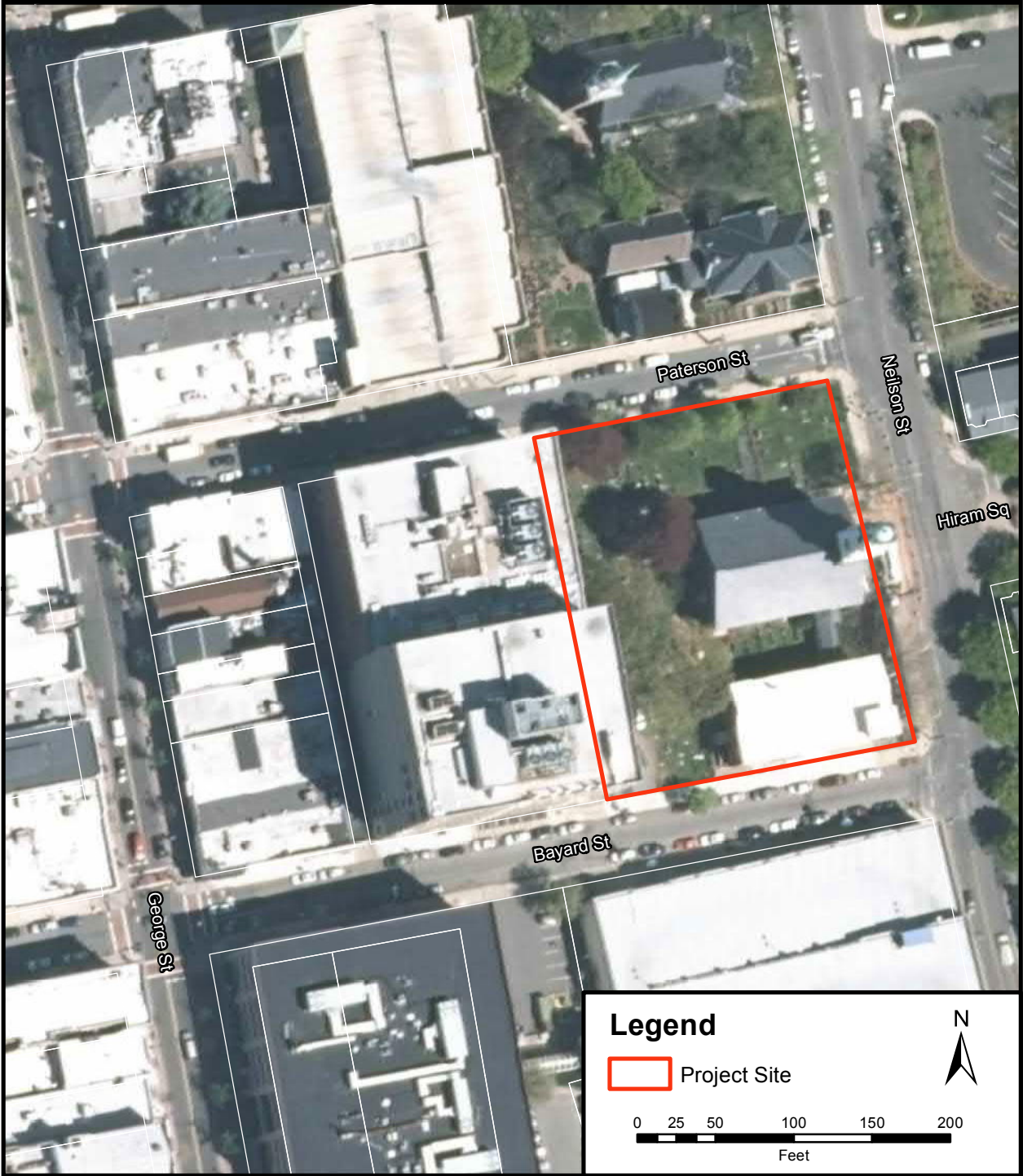


Figure 1.2. Aerial Photograph Showing Location of Project Site. Source: Geographic Information Network 2015.

construction, notably within the church interior, but also at select locations outside the building where utility installations, construction of an ADA ramp, and removal and planting of trees took place (Figure 1.3). Monitoring was carried out in accordance with a protocol developed in coordination with and approved by the New Jersey Historic Preservation Office (Appendix A). The main objective of the monitoring was to identify and document any archaeological resources encountered during the contractor's excavations, especially, but not limited to, any human remains or grave shafts. In the church interior, monitoring also focused on the footings of the extant 1811-12 church building and any potential evidence of the predecessor house of worship erected in 1767. For the most part, excavations were performed by the contractor's staff under archaeological supervision, although in instances where sensitive archaeological materials were encountered or suspected, archaeologists would step in and complete much of the digging.

Limited archaeological testing was also conducted outside the church in advance of the contractor's excavations, most notably involving shovel testing along projected utility alignments. Again, the primary objective of this testing was to establish whether or not human remains were present. Both the monitoring and the testing also sought to provide a clear picture of the sequence of cultural and natural deposits across the church property.

Senior Hunter Research personnel who were responsible for undertaking and reporting on these investigations met the federal standards for qualified professional archaeologists, historians and architectural historians as specified in 36 CFR 61. All documentation and artifacts from the current investigations and from earlier archaeological studies are being temporarily stored at Hunter Research's offices in Trenton, New Jersey until acceptance of the final report by the appropriate review agencies. Following acceptance of

the final report, these materials will be returned to the First Reformed Church of New Brunswick for long-term storage at the church property.

The remainder of this introductory chapter is given over to a brief site description and a review of previous research and principal information sources. Then follows, in Chapter 2, an outline history of the church property with an emphasis on changing land use and building construction. The main results of the archaeological monitoring are discussed in Chapters 3 and 4, the former dealing with work conducted inside the church building and the latter with investigations around the church exterior and in the churchyard. A few concluding remarks are offered in Chapter 5 followed by a listing of bibliographic citations.

Several technical appendices are also attached. Following the archaeological monitoring protocol (Appendix A) are a summary of stratigraphy and artifacts encountered during the course of subsurface testing (Appendix B) and an inventory of all artifacts recovered from the monitoring, testing and excavation (Appendix C). During monitoring of the demolition of the church interior, numerous grave marker fragments, several inscribed with initials or other information, were retrieved, examined, cataloged and set aside for storage by the church (Appendix D). Similarly, a small quantity of displaced human remains was identified, examined and returned to the care of the church (Appendix E), while a limited selection of material samples, mostly mortar and stone, was gathered from foundations within the church building and has been retained in the event future analysis is desired (Appendix F). The final three appendices provide the resumes of project personnel, a bibliographic abstract in required NJHPO format, and basic project administrative details (Appendices G-I).

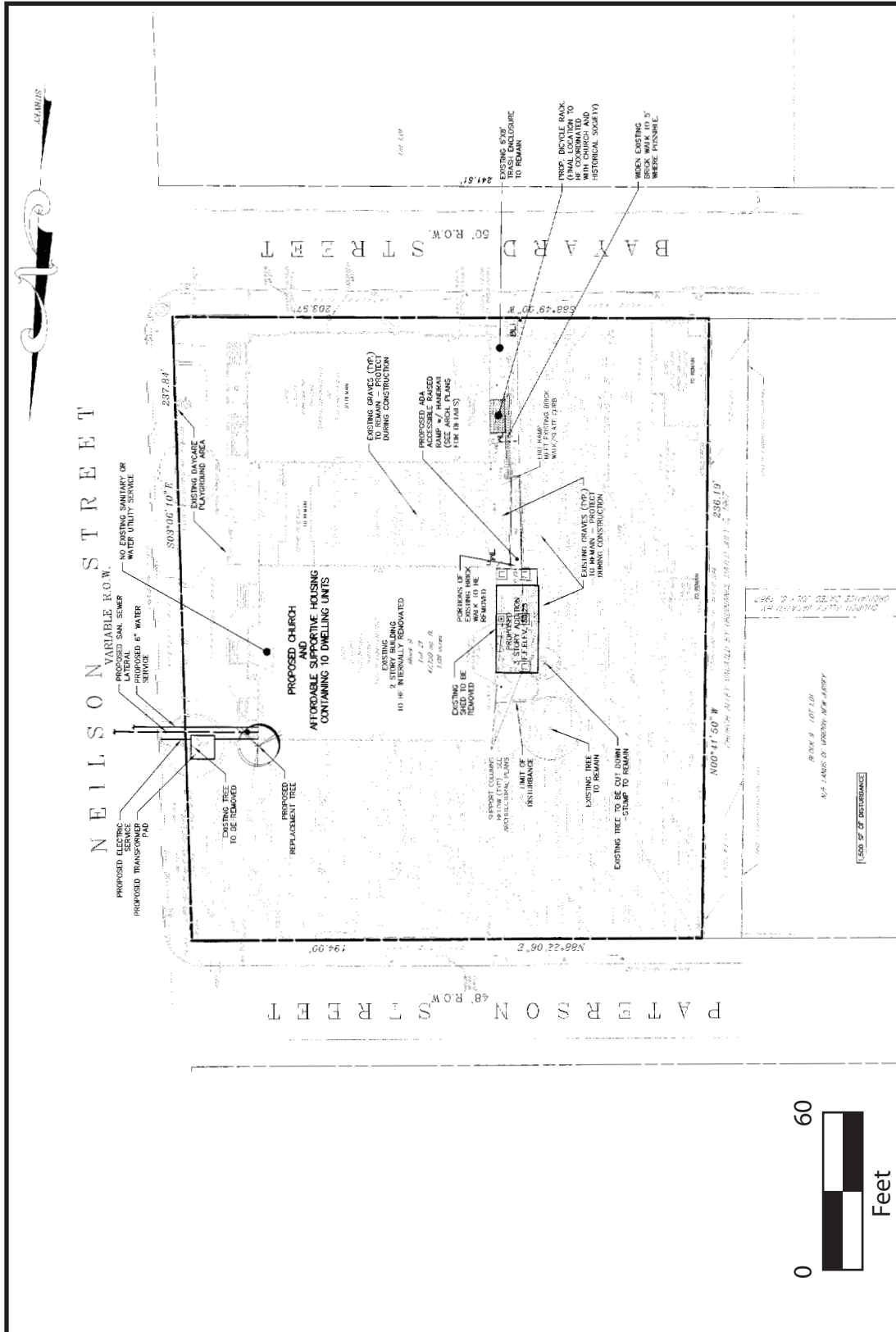


Figure 1.3. Site Plan Showing Proposed Construction, Utilities Installations and Landscape Modifications at the First Reformed Church of New Brunswick Property. Source: First Reformed Church of New Brunswick.

B. SITE DESCRIPTION

The First Reformed Church of New Brunswick is a well-established, historic congregation in downtown New Brunswick, based on a property that takes up the eastern half of the city block bounded by Paterson, Neilson, Bayard and George Streets. The site is dominated by the present church building, a Federal/Greek Revival style edifice erected in 1811-12 in place of an earlier structure constructed in 1767 (Photographs 1.1 and 1.2). The two-story stone main body of the building is three bays wide and five bays deep and has a three-story stone tower capped by a three-tiered frame steeple. It faces east on to Neilson Street with entry doors in each of its three gable-end bays and is surrounded by a churchyard on its northern, western and southern sides.

The interior of the church historically comprised a large auditorium with a narrow foyer extending across its eastern end (Photograph 1.3). The auditorium contained a first-floor seating area defined by a central aisle and two side aisles, one to the north and the other to the south. A second-floor balcony with additional seating encircled the auditorium on its northern, eastern and southern sides accessed through stairs in the foyer and in vestibules in the northwest and southwest corners of the auditorium. The pipe organ was positioned centrally against the west wall of the auditorium fronted by a pulpit set on the lip of the dais at the end of the central aisle.

The churchyard contains numerous graves, many of them marked by gravestones dating from the late 18th and 19th centuries. A second building, a two-story brick structure built as a chapel in 1871-72, occupies the southeastern corner of the church property and is today used for administrative and educational purposes.

C. PREVIOUS RESEARCH AND PRINCIPAL SOURCES OF INFORMATION

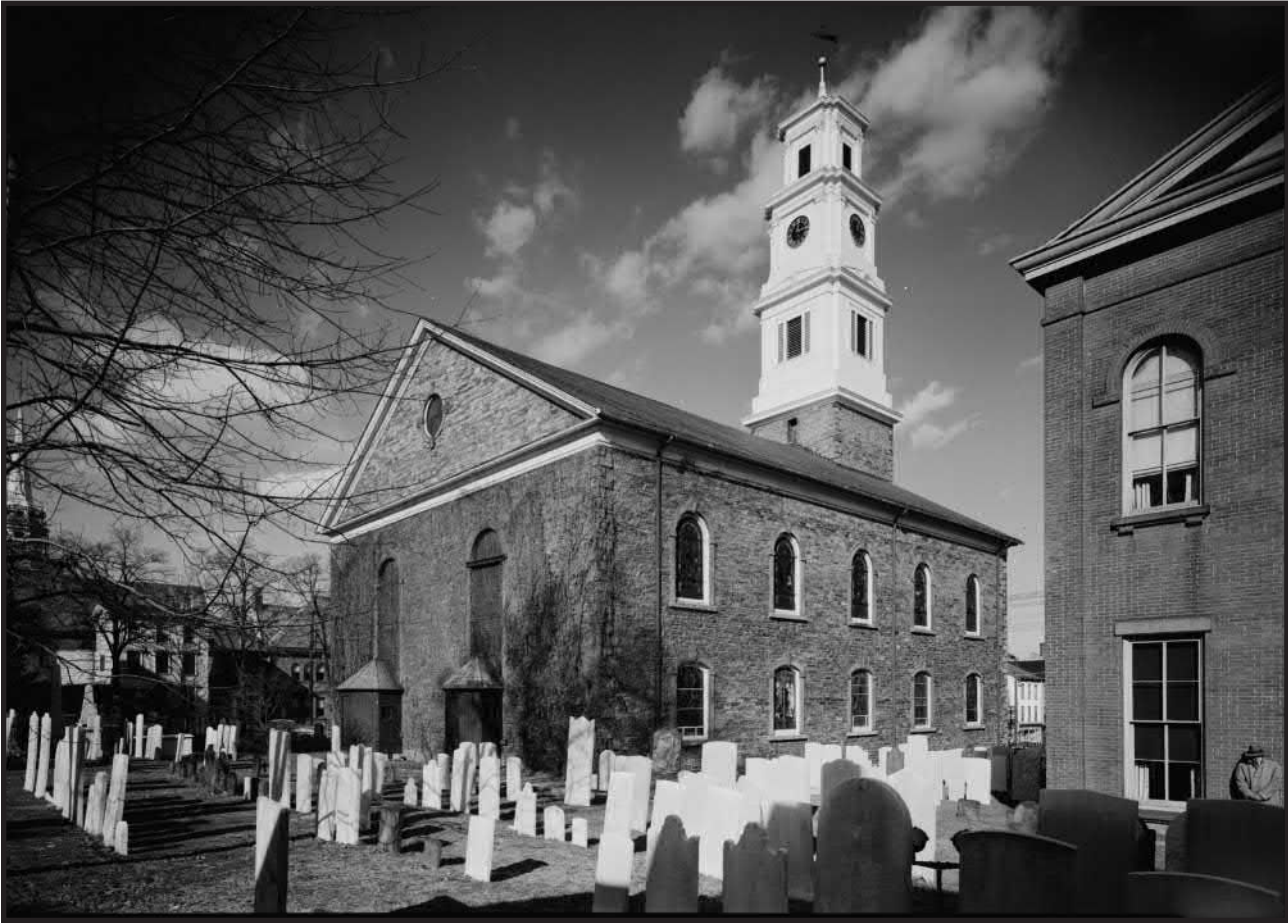
No archaeological investigations have been carried out on the First Reformed Church of New Brunswick property prior to the test excavations undertaken west of the church in 2013 (Hunter Research, Inc. 2013a, 2013b) and the archaeological monitoring and testing work reported on here.

The architecture and history of the church are well described in the documentation prepared in support of the property's designation in the National Register of Historic Places (Foster 1987), while the building itself is analyzed in still greater detail in the preservation plan produced 20 years later in advance of the recent rehabilitation project (Westfield Architects & Preservation Consultants 2007). The church building is also referenced in two precursors to the National Register documentation and preservation plan: the city-wide architectural resources survey of New Brunswick completed in 1980 (Greiff *et al.* 1980) and the sole published architectural history of the city (Listokin 1976). Limited photographic documentation of the church building was conducted by the Historic American Buildings Survey in 1960 (HABS 1960). Inscribed gravestones and memorials in the churchyard are well documented at the website www.findagrave.com and were also supposedly recorded by the Works Progress Administration in 1936.

In addition to historical information included in the above-referenced sources, the history of the First Dutch Reformed Church in New Brunswick is narrated in several standard published histories of Middlesex County and New Brunswick (e.g., Clayton 1883; Wall and Pickersgill 1921; Benedict 1925; Wall 1931). More recently, the church's history has also been the subject of a detailed and authoritative study authored by the late Reverend J. David Muyskens, a former pastor of the church (Muyskens 1991). An important collection of original church records dat-



Photograph 1.1. View looking west across Neilson Street showing the east (front) façade of the First Reformed Church of New Brunswick. 1960. Source: HABS 1960.



Photograph 1.2. View looking northeast showing the west (rear) and south facades of the First Reformed Church of New Brunswick and surrounding churchyard. 1960. Source: HABS 1960.



Photograph 1.3. View looking west showing the interior of the auditorium at the First Reformed Church of New Brunswick. 1960. Source: HABS 1960.

ing from 1717 to 1794 helped to inform Muyskens' work and is held by Rutgers University Libraries Special Collections in RUcore: Rutgers University Community Repository.

The church building and property appear on numerous historic maps from the mid-18th century onward (e.g., A Map of the Corporation of the City of New Brunswick 1784; Marcellus *et al.* 1829; Otley and Keily 1850; Walling 1861; Everts & Stewart 1876; Sanborn Map Company 1886) and these are invaluable in understanding changing land use on the site and in the immediately surrounding area. Maps of this sort also assist in providing a basic chronological framework for archaeological studies. Copies of the more critical map sources are included as an illustrative accompaniment to the historical outline presented in Chapter 2 of this report.

Chapter 2

HISTORICAL BACKGROUND

This brief outline of the history of the First Reformed Church of New Brunswick focuses primarily on the land use history of the church property, drawing principally on published secondary sources and historic maps. For a more detailed historical treatment of the Dutch Reformed congregation in New Brunswick, readers are referred to the late Reverend J. David Muyskens' *"The Town Clock Church": History of the First Reformed Church of New Brunswick, New Brunswick, New Jersey*, published by the church's Consistory in 1991.

The site of the First Reformed Church of New Brunswick, originally known as the First Dutch Reformed Church, lies on the right (west) bank of the Raritan River on the west side of Neilson (originally Queen) Street, the second north-south street up from the waterfront within the core of historic New Brunswick. This location, close to the border of Middlesex and Somerset Counties, has a complex early history in terms of its local governmental oversight that requires tracing the development of both counties.

Middlesex County was first formed within the province of East Jersey in 1683 with the first municipal subdivision taking place a decade later. During this period, the future church site lay within Piscataway Township, Middlesex County. Somerset County was initially set off from Middlesex in 1688 with the division line between the two counties lying well to the west of the present-day boundary. The boundaries of Somerset County were changed in 1710 with its eastern line (the boundary with Middlesex) being set further to the east along Lawrence Brook. This resulted in the church site now being placed within Somerset County. In 1714, the Middlesex-Somerset line was

shifted westward to follow the King's Highway (present-day N.J. Route 27/French Street and Albany Street), meaning that the church site lay immediately south of this boundary, now on the Middlesex County side of the line.

In 1730, the City of New Brunswick was formed by royal charter within the already acknowledged municipal entity of New Brunswick Township. Most of the city lay on the south side of the King's Highway within Middlesex County, but its boundaries were drawn to also include a triangle of land east of Mile Run on the north side of the road in what was then Somerset County. In 1798, New Brunswick Township was divided into North and South Brunswick Townships, with the Middlesex County portions of the City of New Brunswick falling within North Brunswick. In this same year, the Somerset County portion of the City of New Brunswick was assigned to Franklin Township, newly created from the Eastern Precinct (one of three precincts in Somerset dating from the mid-1740s). New Brunswick City continued within North Brunswick and Franklin Townships until 1850, at which time the part of the city in Franklin was transferred to North Brunswick and thereby came under the jurisdiction of Middlesex County. In 1860, New Brunswick Township was formed from North Brunswick Township. In 1863, the City of New Brunswick absorbed New Brunswick Township and became its own separate municipal entity. Finally, in 1929, after annexing parts of North Brunswick, the City of New Brunswick attained its present-day size and current boundaries (Snyder 1969).

The origins of the community of New Brunswick lie in the establishment of a colonial-era ferry across the Raritan at the foot of present-day Albany Street and

are also closely linked to the small late 17th/early 18th-century port community of Raritan Landing situated at the head of navigation a mile or so upstream of the ferry location on the north bank of the river. These two key river-based elements in the transportation network – the landing and the ferry – are what drove the growth of settlement and economic development in the Raritan Valley and much of central New Jersey.

In the early 1680s John Inian and several other settlers jointly purchased a tract of land from local Indians consisting of approximately 10,000 acres on the south side of the Raritan River between present-day New Brunswick and Bound Brook. On November 1, 1681, the title for this land was secured from the executors of Sir George Carteret, the original proprietor of the province of East New Jersey, thereby legitimizing its purchase. The land was surveyed and laid out into 19 parcels, known as the Raritan Lots, of which John Inian acquired two. Each lot, amounting to 1,280 acres, included half a mile of riverfront and extended back from the river for roughly two miles, thus allowing landowners to establish their own landings and providing ample room for agricultural development. The site of the future First Reformed Church of New Brunswick lay on John Inian-owned property.

Inian established a ferry on the banks of the Raritan on one of his two lots in 1686, at the point where the Upper Road crossed the Raritan River. This route, soon known as the King's Highway (present-day N.J. Route 27 [Albany and French Streets in New Brunswick]), was one of the principal regional arteries linking the provinces of East and West Jersey. It also connected the emerging urban centers of New York and Philadelphia, and passed close by the head of navigation on both the Raritan and Delaware Rivers. The cluster of buildings at the river crossing soon became known as Inian's Ferry, a name that persisted well into the 18th century, even as the settlement known as New Brunswick emerged around it. Inian undertook the task of improving the Upper Road in the ferry vicin-

ity, and also improved the path known as the Lower Road (later known as Georges Road), which pursued a more easterly alignment from New Brunswick to the Delaware River, passing through Cranbury, Hightstown and Crosswicks en route to Burlington. Inian's Ferry and its successor New Brunswick both grew along these two important regional roads, while the ferry operation continued in use until the first trans-Raritan bridge was built in New Brunswick in 1793 (Benedict 1925; Wall 1931).

Early European settlement in the Raritan Valley in the late 17th and early 18th centuries included numerous farming families of Dutch heritage, many of them relocating to central New Jersey from the former New Netherland. Virtually all of these families adhered to the Dutch Reformed faith and a congregation soon took root along with the farms. The first Dutch Reformed congregation in the New Brunswick area appears to have been in existence prior to 1703 and was certainly in existence by 1717. It met in a building erected on the King's Highway at Three Mile Run, three miles distant from Inian's Ferry. However, as Inian's Ferry grew quickly into the dominant settlement focus in the area, a new church was established closer to the crossing of the Raritan River, probably sometime in the late 1720s. Certainly, by 1735, a new house of worship had been built at the corner of Burnet and Schureman Streets within the developing town of New Brunswick. The site of this second church lies a short distance southeast of the present church, in the southeast corner of the block now bounded by Neilson, Burnet, New and Richmond Streets (see below, Figure 2.3 [on this map from 1829, "k" marks the location of the "Site of old Dutch Church"]) (Clayton 1883:691-692; Muyskens 1991).

The Dutch Reformed Church congregation in the New Brunswick area was strongly influenced in the period after 1720 by the evangelism of German reformed theologian Theodorus Frelinghuysen (1692 – *circa* 1747), who was an influential figure in the early years

of the Great Awakening. The church was also prominent in the drive to establish a theological college for the Dutch Reformed Church in America, which eventually materialized when Queen's College (now Rutgers University) was chartered in 1766 (Muyskens 1991; Wall 1931).

As early as 1754 discussions were underway for the replacement of the church building at Burnet and Schureman Streets with a larger, more commodious structure. In 1765, the congregation entered into a 2,000-year lease for much of the present church site at the corner of Neilson and Paterson Streets. Two years later, a new church was erected on this property, reputedly using stone quarried from Hell Gate, a tidal strait with treacherous rock outcrops in the East River adjacent to Manhattan Island. The old church was torn down; the new building, as described more than a century later, was:

“... of stone, nearly square, and would seat comfortably four hundred persons. The cost of construction was £1097 13s. 7d. It had a front entrance on Queen (now Neilson) Street, and a side-door on Prince (now Bayard) Street. At the south side was a long pew for the accommodation of the public officers of the city, and on the north similar pews running parallel with the walls, which, it is said, were much sought after, ‘as one eye could be directed towards the minister and the other to anything that might require attention in the other part of the house.’ Far off and up in a circular pulpit supported by a pedestal was the minister, beneath the old time-honored sounding-board. Two pillars supported the roof from the centre, which went up on four sides, ending in a small steeple. A bell was put up about the year 1775, and the sexton in ringing stood in the middle aisle, winding the rope during the service around one of the pillars. The church was never desecrated with stoves, but, in the midst of winter the good

Dutchmen kept up what heat they could by an occasional stamp on the floor and tradition says the dominie would keep warm by an extra amount of gesture.” (Clayton 1883:697).

No securely attributed historic images of this church building have been found, but an artist's rendering of uncertain date and provenance (Figure 2.1) echoes the above description and suggests the building closely resembled other better documented contemporary structures, such as the First Dutch Reformed Church in Albany, New York. The location of the church is confirmed through its appearance on “A Map of the Corporation of the City of New Brunswick” surveyed in 1784, the year in which the city received its charter. The church building is shown on the west side of Queen's (Neilson) Street, south of Barrack (Paterson) Street (Figure 2.2).

In the later colonial period New Brunswick played an important role in the military affairs of the British North American colonies. In the late 1750s, the town was selected as the site of one of five British barracks erected as part of the supply network for troops fighting the French and Indian War further to the west in the Appalachians. This building was located a short distance to the west of the First Dutch Reformed Church along Paterson Street. In part because of the pre-existing barracks facility, New Brunswick emerged as a key strategic location during the Revolutionary War, when the city was occupied by the British and served as a base of military operations from the time of the Battles of Trenton and Princeton in late 1776/early 1777 until 1781. Over the course of the winter of 1776-77, with military tension at a peak, many residents of New Brunswick evacuated the town and services were suspended at most houses of worship, among them the First Dutch Reformed Church. During the war, according to late 19th-century pastor, the Reverend Richard Steele, “our church edifice underwent a temporary repair, and for some time was occupied on alternate Sabbaths by the Presbyterian

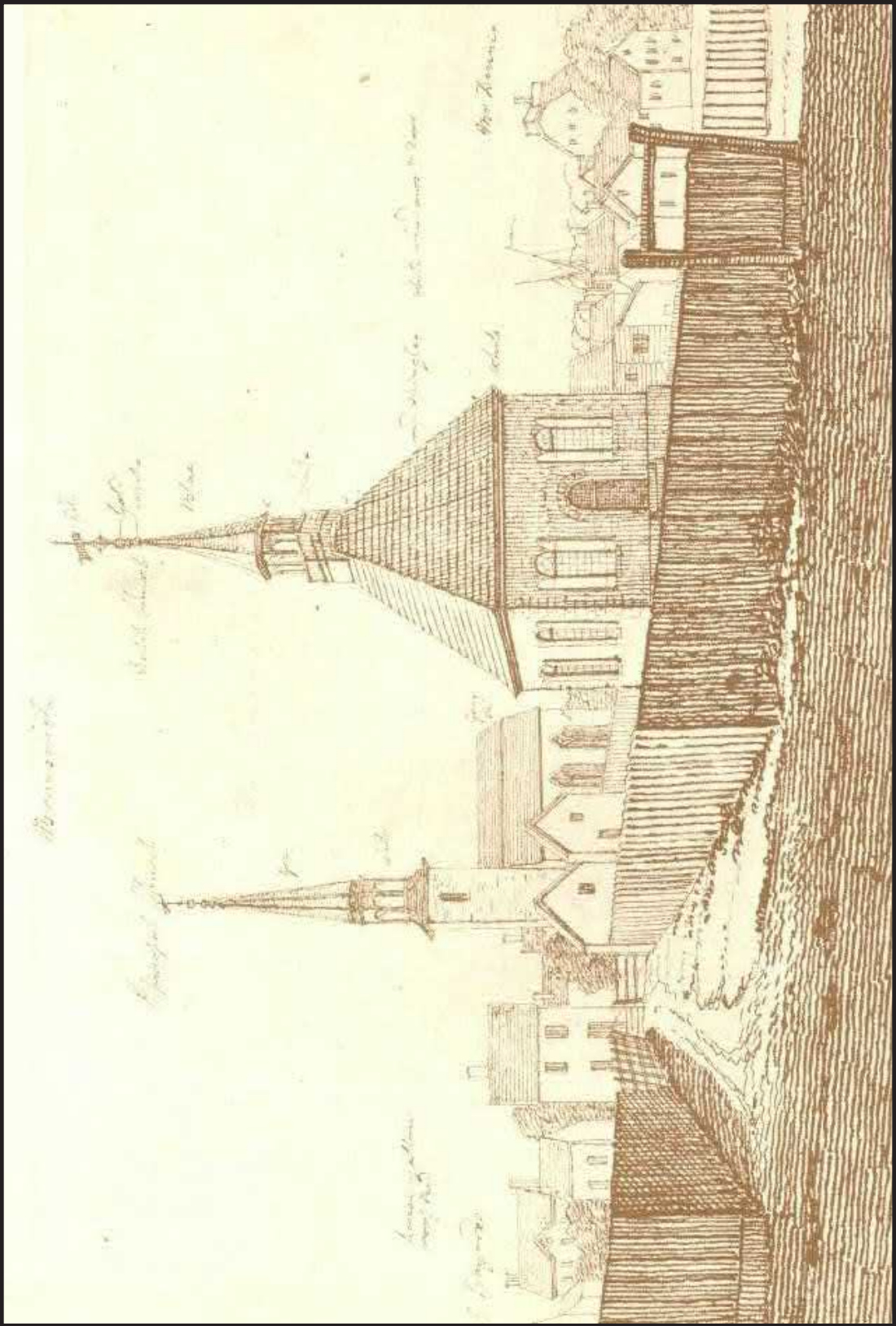


Figure 2.1. Artist's Rendering of the First Dutch Reformed Church, circa 1790. This view is looking north from Bayard (Prince) Street along the alley that passed to the rear of the church property. The original First Dutch Reformed Church on the site is in the foreground and has a side door in its south façade. The main entrance into the church was on its eastern side, which would have faced Neilson (Queen) Street and the Raritan River. The church beyond is Christ Episcopal Church. Source: Listokin 1976.

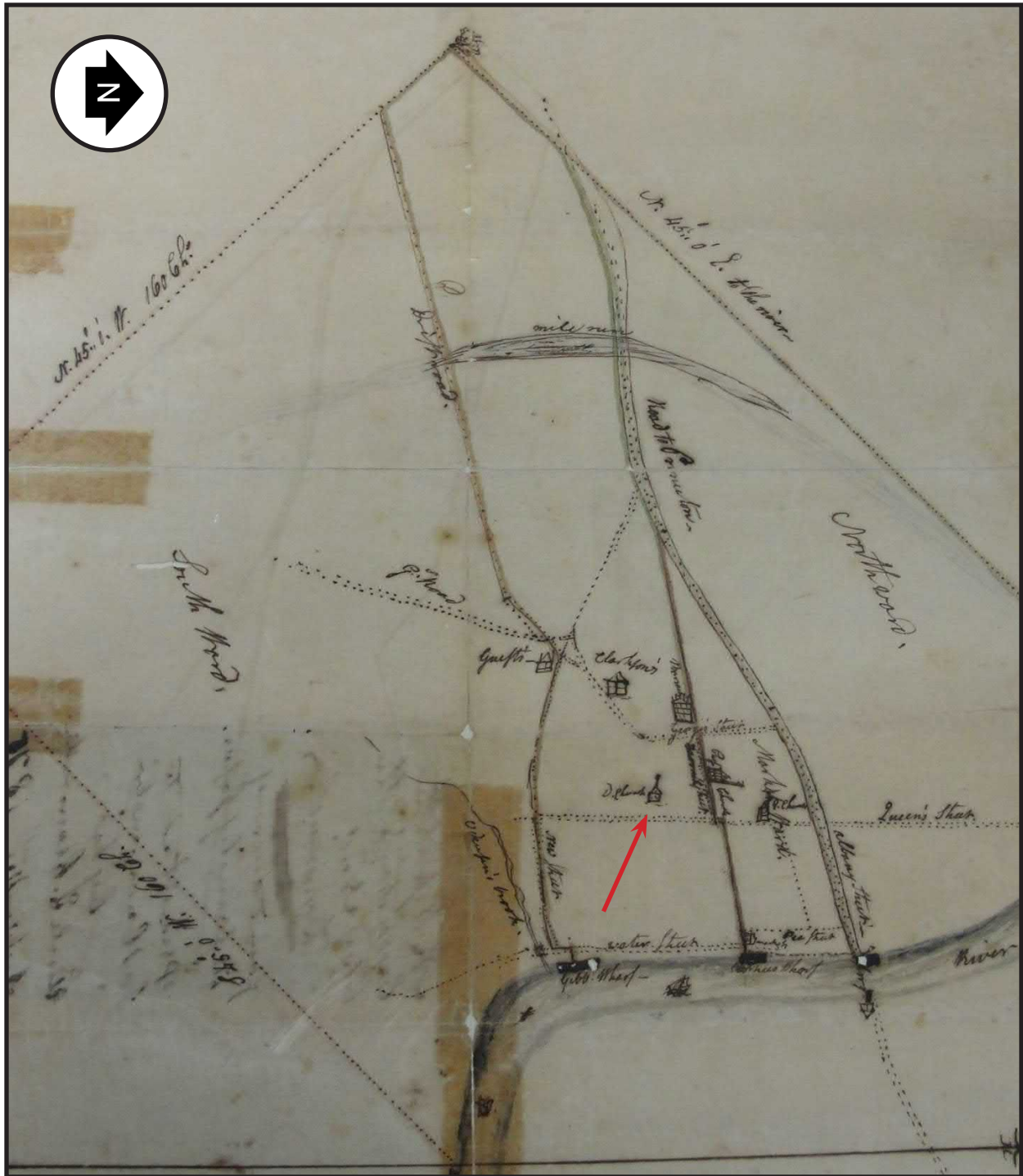


Figure 2.2. A Map of the Corporation of the City of New Brunswick. 1784. Scale: 1 inch = 1200 feet (approximately). Location of First Dutch Reformed Church indicated with arrow.

congregation, the blackened walls of whose building were left standing below Lyle's Brook." Evidently, the First Dutch Reformed Church escaped the war largely unscathed compared to some of the other churches in town.

In the early 19th century, the laying out of the Trenton and New Brunswick Turnpike in 1805 and the role of New Brunswick as the Raritan River terminus on the main line of the Delaware and Raritan Canal spurred economic growth and the city's port facilities were greatly expanded. Completed in 1834, the canal, besides being a vital regional transportation artery, also served locally as a source of water power. Through the mid- to late 19th century a series of flour mills, textile mills, ironworks and rubber manufacturing facilities developed along the canal and river frontage. By 1836 New Brunswick also enjoyed rail connections, furnished by the New Jersey Railroad in Highland Park on the opposite side of the Raritan River. Passengers would disembark in Highland Park and were then transported across the river into the city via the road bridge in stagecoaches. In the following year a railroad bridge was opened allowing trains to carry passengers across the river to the depot on Somerset Street in New Brunswick. In 1839, a branch line of the Camden and Amboy Railroad was built into town, linking New Brunswick to Trenton via Princeton Basin. The numerous transportation options attracted industrialists, which led to a period of increased manufacturing, commerce and residential building within the city (Clayton 1882; Wall 1931).

New Brunswick's economic growth spurred population expansion which in turn swelled the various congregations in the city. In 1811, during the pastorate of the Reverend Ira Condict, owing to the increase in size of the Dutch Reformed congregation, it was decided to build another more capacious church. Demolition began in May of that year, but within a few days Pastor Condict passed away. The rebuilding project was overseen by his successor, the Reverend John

Schureman, and the new house of worship was completed and formally opened for services in September of 1812. The new building cost \$16,415 to construct and was able to seat 1,100 people (Clayton 1883:699-700; Muyskens 1991).

Along with the growing congregation, there was also pressure to expand the churchyard to make room for more burial space. In 1823 and 1825, two tracts were acquired adjoining to the west of the church property for \$395.50, thereby enlarging the churchyard with a 43-foot-wide strip of land extending between Bayard and Paterson Streets. While most of this area was set aside for burial purposes, a new building containing a lecture room and meeting space for the church session was erected on the Bayard Street frontage in 1826 at a cost of \$1,468. In the following year, a steeple was added to the eastern end of the church at a cost of \$2,725 (Clayton 1883:701).

The church is depicted on the first detailed map of New Brunswick published in 1829 by Marcellus, Terhune & Letson (Figure 2.3). By this time, the church owned and occupied most of the eastern half of the block bounded by Queen (Neilson), Prince (Bayard), George and Paterson Streets, although the southeastern corner had been under municipal control since 1796 and still served as the site of the courthouse and clerk's office (marked "I" and "K"). The building marked "T" in the northwest corner of the church property is the structure built three years earlier and is identified in the map legend as being the room where the church consistory met.

The detailed plan of New Brunswick included as an inset on the Otley and Keily map of Middlesex County published in 1850 (Figure 2.4) shows that the former courthouse building was now in use as the "NB" [New Brunswick] library. A second structure immediately to the west and fronting on to Bayard Street is identified as a fire engine house, while the building in the northwest corner of the church property is marked as

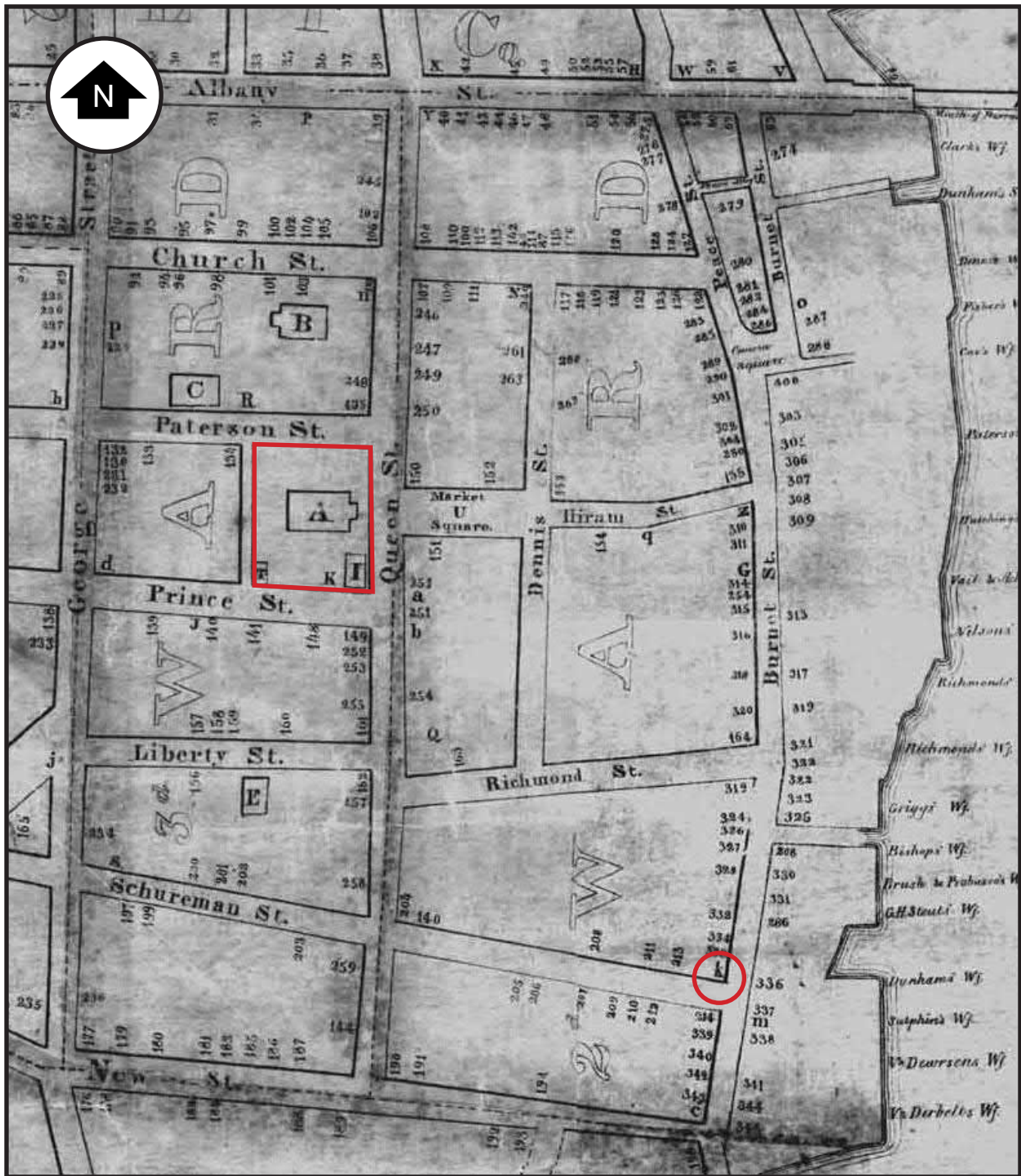


Figure 2.3. Marcelus, Terhune & Letson. *New Brunswick from an Actual Survey*. 1829. Scale: 1 inch = 270 feet (approximately). First Reformed Church of New Brunswick property outlined. “A” marks the First Dutch Reformed Church; “I” the Courthouse (erected in 1797); “K” the Clerk’s Office; and “T” the Consistory [sic] Room. Note the earlier “Site of old Dutch Church,” to the southeast of the First Reformed Church location, where the Dutch Reformed congregation first met in New Brunswick, is marked by “k” and circled.

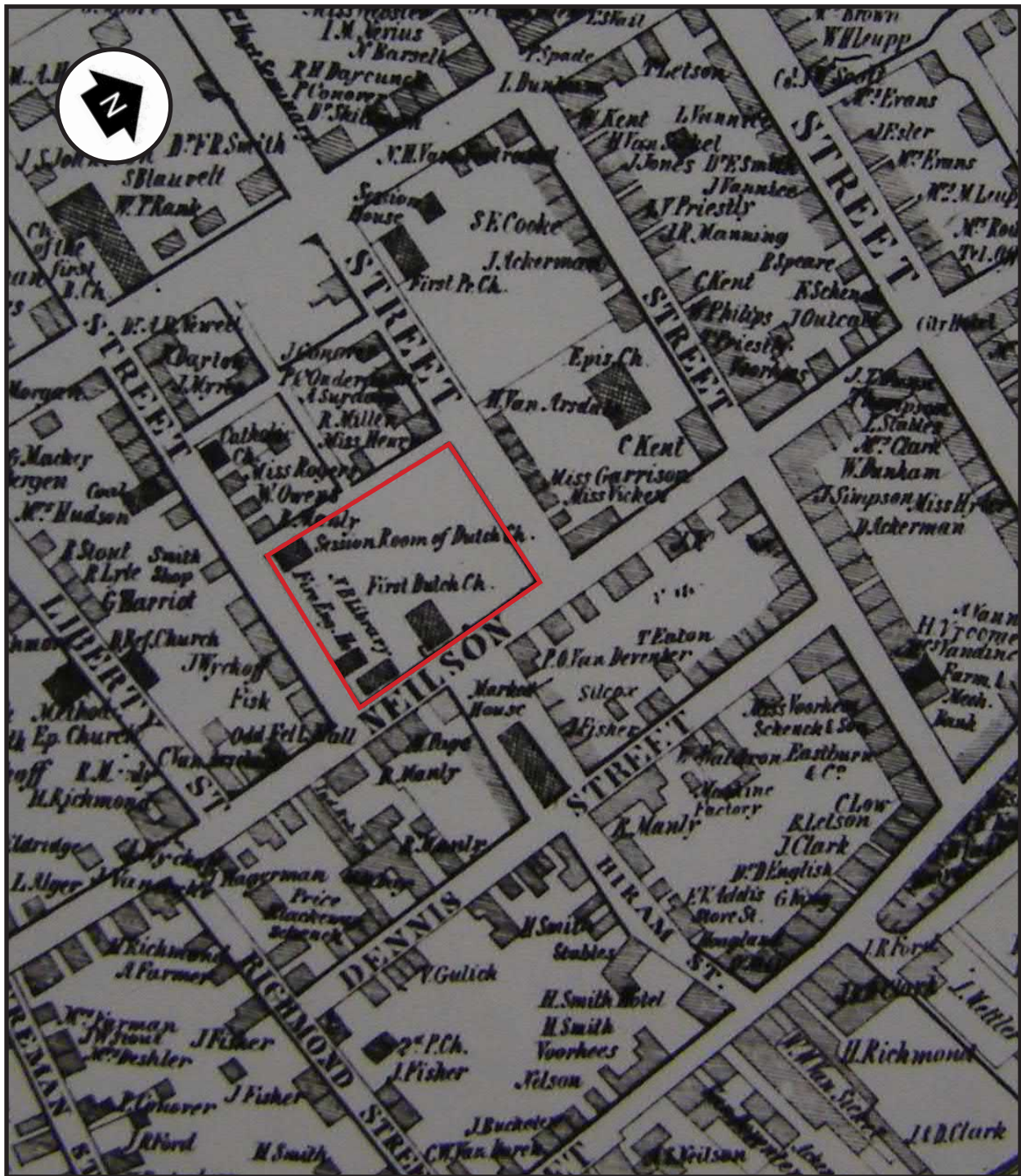


Figure 2.4. Otley, J. and J.W. Keily. Detail of *Plan of New Brunswick. Map of Middlesex County, New Jersey*. 1850. Scale: 1 inch = 180 feet (approximately). First Reformed Church of New Brunswick property outlined.

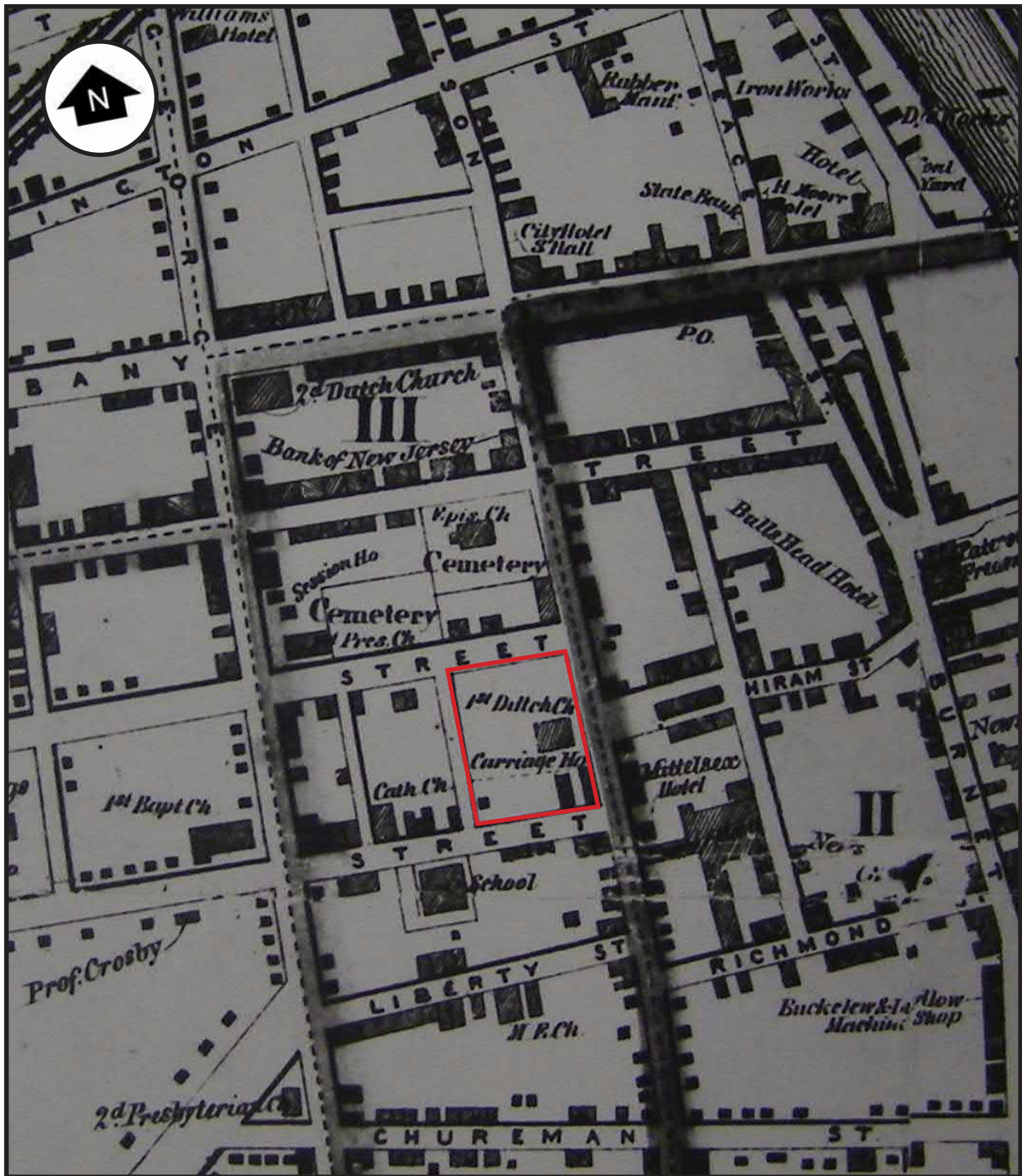


Figure 2.5. Walling, Henry F. Detail of Plan of New Brunswick. *Map of the County of Middlesex, New Jersey*. 1861. Scale: 1 inch = 250 feet (approximately). First Reformed Church of New Brunswick property outlined.

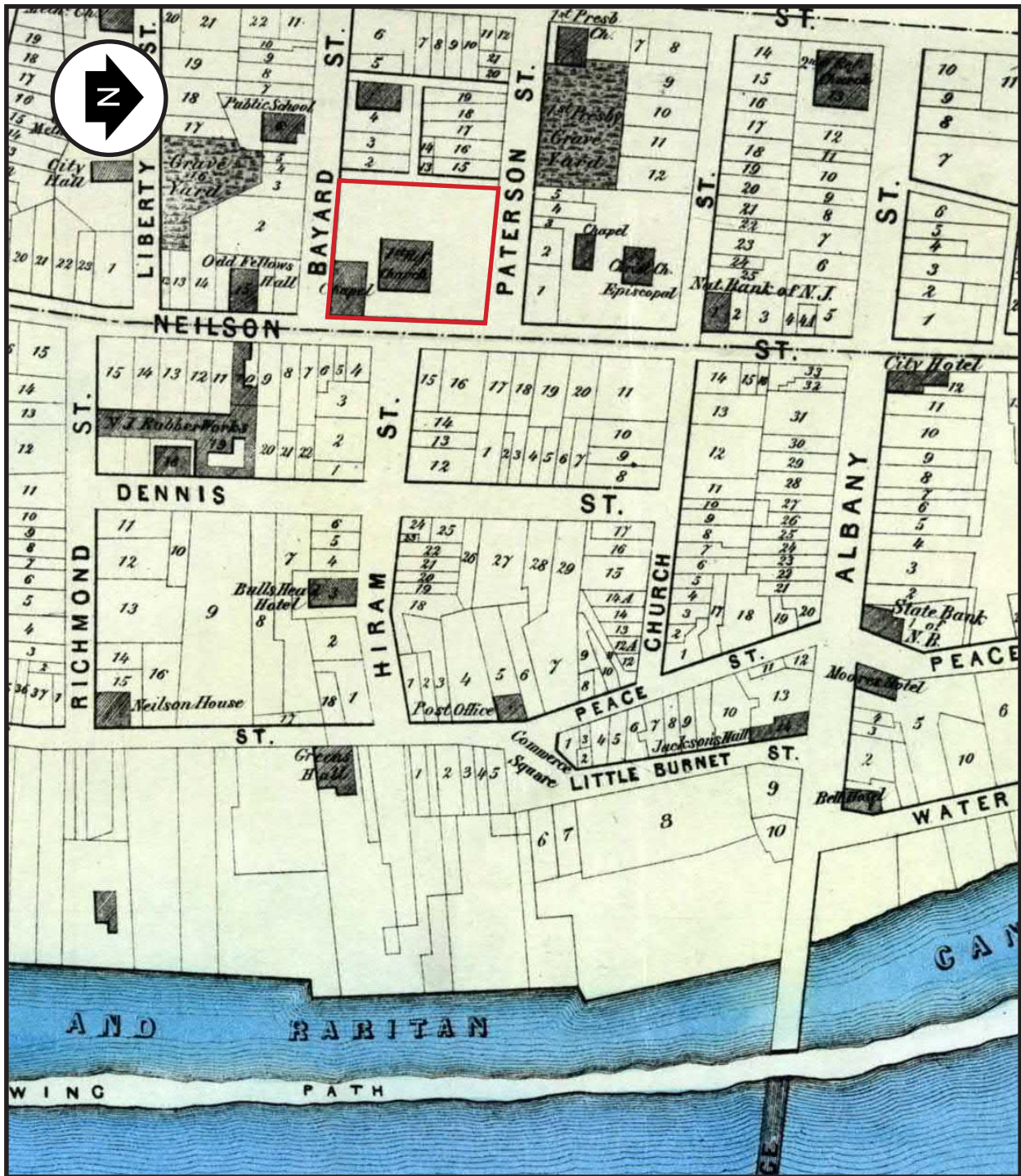


Figure 2.6. Everts & Stewart. Detail of New Brunswick City, Third and Fourth Wards. *Combination Atlas Map of Middlesex County, New Jersey*. 1876. Scale: 1 inch = 240 feet (approximately). First Reformed Church of New Brunswick property outlined.

ARCHAEOLOGICAL MONITORING: FIRST REFORMED CHURCH OF NEW BRUNSWICK

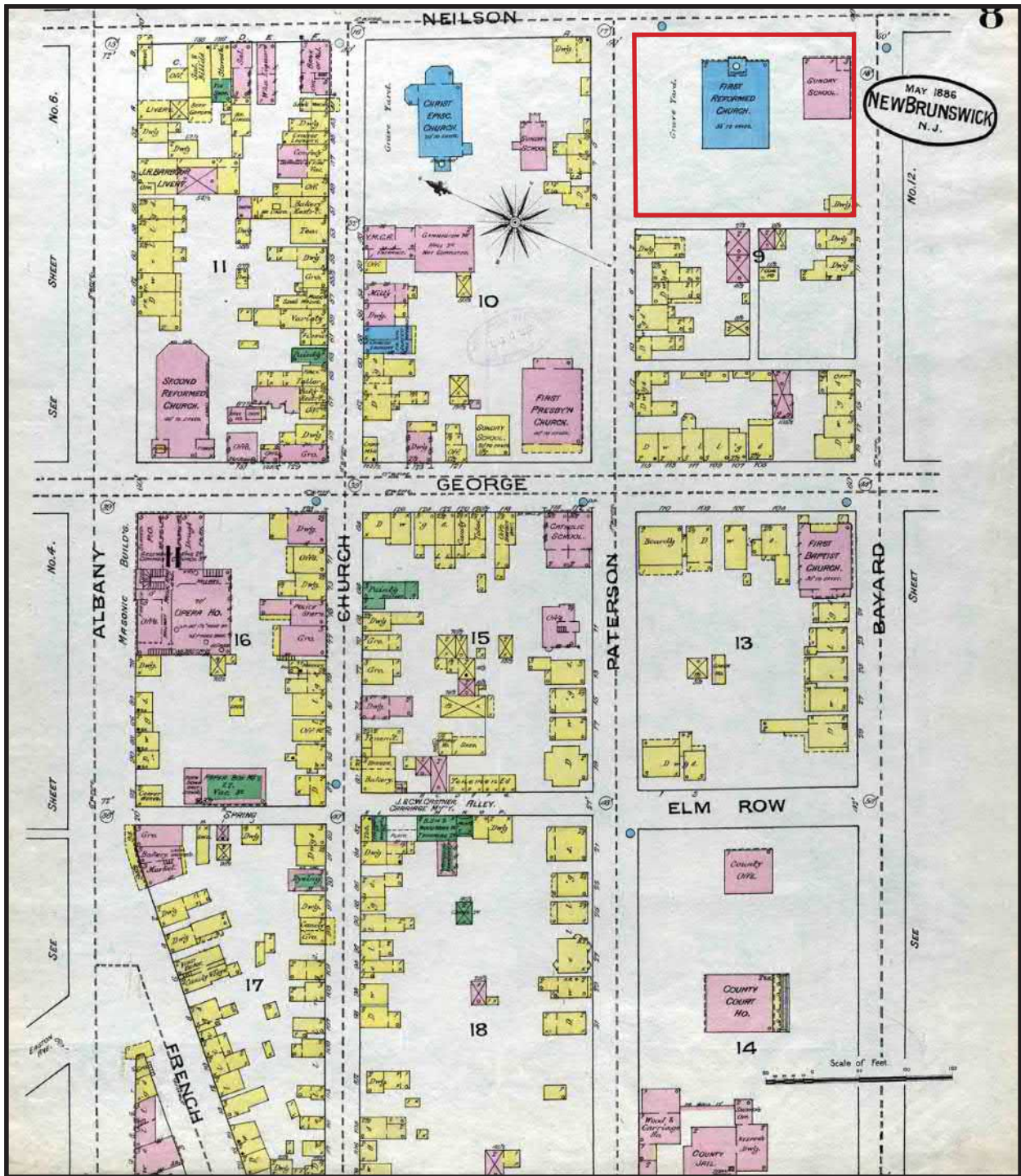


Figure 2.7. Sanborn Map Company. Sheet 8. *Insurance Maps of New Brunswick, New Jersey*. 1886. First Reformed Church of New Brunswick property outlined. Scale: 1 inch = 170 feet (approximately).

“Session Room of Dutch Ch.” Another plan of the city prepared by Henry F. Walling eleven years later shows the same arrangement of buildings, but the fire engine house at this time was functioning as merely a carriage house with access being provided to the rear of the building from the alley bordering the west side of the church property. By this time, the still-expanding congregation had led to the establishment of Second Dutch Reformed Church at the southeast corner of Albany and George Streets (Figure 2.5).

In 1862, the city-owned land at the corner of Neilson and Bayard Streets was finally acquired by the church. The buildings there were soon demolished and, in 1871-72, a new structure was erected, referred to as the Chapel. This structure is labeled as such on the map of the city’s Third and Fourth Wards included in the Middlesex County atlas of 1876 (Figure 2.6). In 1886, the Sanborn fire insurance maps of the city identify this building as the Sunday School and show a one-story frame dwelling occupying the site of the session room (Figure 2.7). The Chapel/Sunday School building still stands today and currently serves as offices, meeting rooms and educational facilities for the church. The house presently standing at the southwest corner of the church property on Bayard Street may also incorporate part of the late 19th-century one-story dwelling, which itself may have replaced the session room, perhaps as early as the 1850s.

The general arrangement of buildings on the church property appears to have remained pretty much unchanged since the 1870s, while the surrounding churchyard became ever more densely filled with burials of the church’s congregants and their families. Among those interred in the First Reformed Church cemetery are members of many of New Brunswick’s most prominent and prolific Dutch American families (e.g., Ackerman, Booraem, Hardenbergh, Nevius, Rappelyea, Schanck, Schureman, Ten Eick, Van Arsdale, Van Derveer, Van Deventer, Van Lieu, Voorhees and Wyckoff). As of the time of writing, a

total of 713 memorials are documented in the cemetery at the www.findagrave.com website, the overwhelming majority of which reflect 19th-century interments. There are also several grave markers memorializing late 18th- and early 20th-century burials. Allowing for unmarked graves, it is estimated that well in excess of 1,000 burials exist within the cemetery.

Chapter 3

ARCHAEOLOGICAL MONITORING OF DEMOLITION AND EXCAVATIONS IN THE CHURCH INTERIOR

A. MONITORING OF DEMOLITION OF THE FIRST-FLOOR FRAMING AND FOUNDATIONS

Archaeological monitoring inside the church commenced on January 19, 2015 as the contractor was nearing completion of demolition of the building's interior structure. This final phase of the demolition work resulted in the exposure of a crawlspace and the timber joists and stone, brick and cinderblock foundations supporting the first floor and balcony within the main space of the church containing the auditorium and sanctuary. Over the course of a four-day period, these features were examined and documented by the archaeological monitor before their wholesale removal by the contractor (Figure 3.1; Photographs 3.1-3.3).

A fairly complex system of foundations and piers supported the first floor and other interior features of the church. Three main components to this subfloor support system were recognized: 1). foundations providing structural support for the columns and framing of the second-floor balcony; 2). foundations providing structural support for the first-floor framing in high-traffic pedestrian areas within the auditorium (i.e., the aisles); and 3). foundations providing structural support for the dais, organ and stairs in the sanctuary area at the western end of the building.

1. Second-Floor Balcony

Stone foundations underpinned a series of ten principal wooden columns supporting the second-floor balcony. These foundations lay directly beneath the outer projecting edge of the balcony which ringed the north, east and south sides of the auditorium. The founda-

tions for the north and south sections of the balcony each comprised three east-west segments, between 14 and 20 feet in length, and extended respectively for a total length of roughly 50 and 55 feet. The western ends of both the north and south balcony foundations were topped with sections of cinderblock foundation that had been added to raise the elevation of the dais (see below). The east section of the balcony, which in recent years contained the orchestra/organ area and extended for roughly 36 feet in length between the north and south balcony sections, was supported by two north-south foundation segments. Two additional columns were centrally placed along these foundation segments, set six feet apart on either side of the main aisle (Figure 3.1; Photographs 3.1-3.3).

The foundations for the balcony were 1.8 to two feet wide and consisted of medium to large stones mortared together with a pinkish gray mortar. The majority of these foundations were set in a trench that extended to a depth of six inches to a foot beneath the surface of the crawlspace under the first floor, but directly beneath the columns the foundations extended up to two feet deeper, presumably to add greater load-bearing support for the balcony above. While these foundations were eventually removed entirely, the wooden columns were retained, preserved in place and repositioned on newly constructed footings.

The masonry construction of the balcony foundations closely resembled that of the other foundations in the church, including the foundations for the main exterior walls. On this basis, the balcony and its foundations are considered original features of the church and therefore date from its 1811-12 period of construction. The gaps between the various segments of the foundations appear to have been deliberately created



Photograph 3.1. View looking southwest showing exposed floor joists and stone, brick and cinder-block foundations supporting the first floor of the church auditorium and sanctuary. The cinderblock and brick foundations supported an elevated dais in the sanctuary at the western end of the building (Photographer: E-Tomic Construction Services, January 2015).

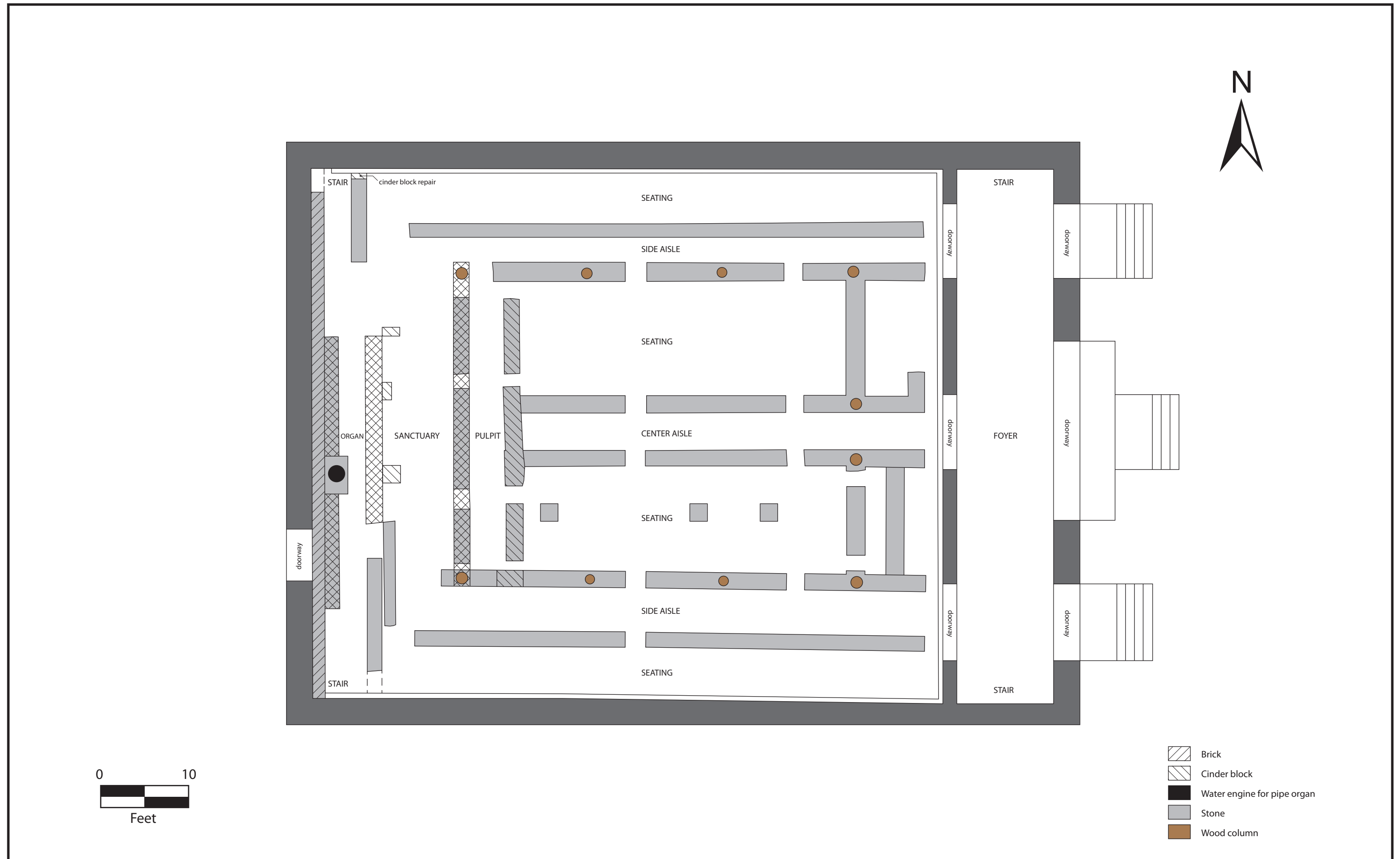
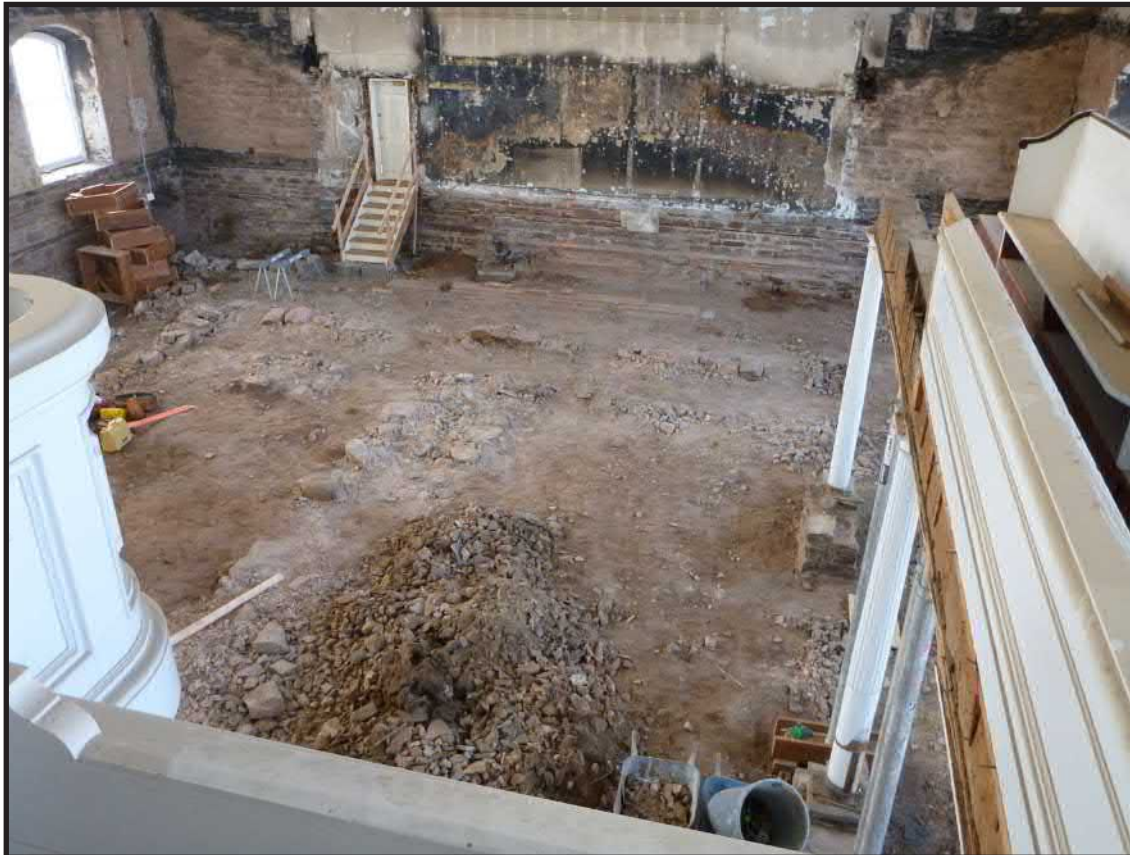


Figure 3.1. Plan of the Church Interior Showing the Location of Foundations Prior to their Demolition and Removal.



Photograph 3.2. View looking east-northeast showing the contractor removing the demolished first-floor foundations. Note the stone footings underpinning the wooden columns supporting the second-floor balcony (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D1:060].



Photograph 3.3. View looking west-southwest from the second floor balcony showing the church auditorium after removal of the first-floor foundations and prior to excavation for new construction. The second-floor balcony has been mostly removed by the time this photograph was taken. Note the extensive charring on the far west wall from the fire of May 29, 1971 and the ghosting of the stairs leading up to the balcony in the northwest and southwest corners of sanctuary (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D1:190].

to allow access within the crawlspace for maintenance purposes and in most instances seem to have been part of the original construction (as opposed to being knocked through at some later date).

2. Central Aisle and Main Seating Area in the Auditorium

The north-south foundations for the east section of the balcony were tied in to a pair of parallel east-west foundations running down the center of the building. These latter two foundations, again each consisting of three separate segments, extended along either side of the main aisle for a distance of roughly 48 feet. Their purpose was to provide adequate support for the church's heavily trafficked center aisle. Two additional, roughly 58-foot-long, east-west foundations were also documented, one located six feet to the south of the church's north exterior wall and the other six feet north of the south exterior wall. These foundations provided support for the church's north and south side aisles (Figure 3.1).

Like the balcony foundations, the center and side aisle foundations features were approximately 1.8 feet wide and comprised of mortared medium to large stones with a pinkish gray mortar. The aisle foundations were set within relatively shallow trenches extending no more than six inches below the surface of the crawlspace soils. The masonry composition of the aisle foundations closely resembles that of the balcony foundations and the foundations for the church's exterior walls. On this basis, they are judged to date from the original construction of the church in 1811-12. Again, the gaps observed in the aisle foundations are thought to have been to facilitate access within the crawlspace for maintenance purposes and in most instances seem to have been part of the original construction.

Also observed during the monitoring of the demolition were three brownstone piers, each roughly 1.5 feet square and set along an east-west line running parallel to and between the center and southern side aisle foundations. These piers rested directly on top of the crawlspace surface and appeared to be made from rough-dressed stone blocks repurposed from another building. It is possible they came from the earlier church on the grounds, but there is no firm evidence to support this. It is thought that these less formal piers were inserted subsequent to the 1811-12 construction of the church in an effort to brace floor joists beneath the seating area where settlement may have occurred.

3. Sanctuary and Dais

At the western end of the church, a series of parallel, north-south foundations were documented which supported the dais within the sanctuary (Figure 3.1; Photograph 3.1). The easternmost of these foundations, located approximately 24 feet east of the church's west wall, likely supported the front of the pulpit which was positioned at the eastern edge of the dais. This foundation rose up directly from the western end of the center aisle foundations. A second foundation ran north-south approximately four feet to the west and probably supported the rear of the pulpit. Both of these foundations consisted of mortared medium to large stones with a grey-colored sandy mortar and both directly underpinned cinderblock footings that had been added to raise and possibly expand the area of the dais further to the east.

In both the northwest and southwest corners of the building, north-south mortared stone foundations were observed projecting out from the north and south exterior walls of the church. The foundation in the northwest corner extended for almost ten feet, while in the southwest corner there were two segments of foundation, each roughly 13 feet in length, running in part alongside one another and extending roughly 20

feet into the interior of the building. These foundations appear to have been constructed to provide additional support for the screen and the row of columns at the rear of the dais on either side of the organ and also for the stairs giving access to the balcony from the vestibules in the northwest and southwest corners of the sanctuary (cf. Photograph 1.3). Upon their removal, both foundations were found to be shallowly set to a depth of no more than six inches within the crawlspace soils. From their mode of construction these foundations are likely part of the church's original construction.

The final two sets of north-south foundations were both located closer to the west wall of the church and evidently supported the massive pipe organ that was positioned against the center of the west wall (Photographs 1.3 and 3.4). Both were mortared stone foundations on top of which rose a mortared brick footing several courses high capped by a thin layer of cinderblock. One of these foundations, 22 feet long and two feet wide, ran parallel to and approximately six feet east of the west wall. Its southern end abutted the northern end of the mortared stone foundation observed in the southwest corner of the church (see above). Many of the bricks in this foundation were stamped "S & F" indicating their manufacture by the Sayre & Fisher Brick Company, of Sayreville, NJ, which was in operation from *circa* 1850 until the late 1960s (Bayley 2019). The underlying mortared stone base extended approximately two feet beneath the ground surface and was laid in a trench cut into the natural bedrock. As the lower mortared stone courses were being removed by the contractor, it became apparent that much of the foundation was comprised of fragments of grave markers, chiefly footstones, presumably relocated from graves in the churchyard. Each of these stones was retrieved under archaeological supervision and mortar adhering to their surfaces was carefully removed. In all, portions of at least 42 different footstones were retrieved during the dismantling of this wall. Thirty-five were made of marble;

the remaining seven of brownstone. Many of them bore the inscribed initials of the person being buried (Appendix D).

The other foundation ran parallel and slightly further to the west, abutting the brick-capped mortared stone offset of the main west wall of the church. This foundation was 1.8 feet wide and approximately 30 feet long with a 4.5-foot-long gap midway along its course filled by a rectangular 2.5-by-4.5-foot bluestone slab on top of which was seated a water engine used to power the pipe organ (see below). The slab was mortared into the brick masonry, which included many bricks produced by the Sayre & Fisher Brick Company, while the underlying stone masonry again incorporated several grave marker fragments, again mostly pieces of footstones. In all, parts of at least 37 footstones and burial plot markers were retrieved during the dismantling of the northern end of this foundation. Twenty-four of the footstone fragments were made of marble; the remaining 13 were brownstone. Again, several were inscribed with the initials of the person being buried (Appendix D).

The water engine that was found seated on the bluestone slab is an item of some considerable interest (Photographs 3.4 and 3.5). This artifact was removed from the slab by the contractor and has been placed into storage by the church. Constructed chiefly of cast iron, it displayed a manufacturer's mark indicating that it was made by the Ross Valve Manufacturing Company of Troy, New York. This firm was established in 1879 and remains in operation today, although its production of water engines is believed to have ceased in the 1950s or 1960s (www.rossvalve.com; Self 2017). This particular water engine was likely made in the late 19th or early 20th century and represents an important upgrade of the church's service equipment. The device powered the church's pipe organ using the pressure of water drawn from the city water supply system to drive a piston that operated the pipe organ's bellows (Figure



Photograph 3.4. View looking northwest showing the partially removed foundations for the dais in the sanctuary. The main west wall of the church is in the background with a brick capping on the foundation offset. The top of the brick capping is considered to represent the original first-floor level of the dais, which was later raised to a higher level, probably to allow for installation of a new pipe organ powered by a water engine. A brick foundation has also been built up against the offset of the church's west wall foundation with the water engine for the pipe organ set on a bluestone slab inserted roughly midway along its course. A second mortared brick on stone foundation in the foreground provides additional support for the dais and organ. Scales in feet and tenths of feet (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D1:161].



Photograph 3.5. Detailed view of the Ross Valve Manufacturing Company water engine uncovered in the crawlspace adjacent to the interior of the west wall of the church. Seated on a rectangular bluestone slab, this device was hooked up to the city water mains and used hydraulic pressure to power the bellows for the church's pipe organ. Note how the bluestone slab is mortared into the brick masonry at right, implying that the water engine was probably installed at the same time as the brick foundation. Scale in feet and tenths (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D2:035].

3.2). A simple diagram showing how a typical water-powered pipe organ functioned, based on an example at the Emmanuel Catholic Church in Dayton, Ohio, is included here as Figure 3.3. Engines of this type are still occasionally found in use today (Photograph 3.6). The First Reformed Church’s water-powered pipe organ was originally positioned on the first floor of the sanctuary centrally positioned at the western end of the church directly above the water engine (see above, Photograph 1.3). This organ was destroyed by

The incorporation of grave marker fragments into the masonry of the church sanctuary’s interior foundations is intriguing and raises many questions (Photograph 3.7). Where in the churchyard did the grave markers and footstones come from and why were they re-used in this way? When were they repurposed in this fashion? Perhaps the most likely explanation is that they were grave markers broken at various times over the years which were then stockpiled somewhere on the church property, thus becoming a convenient source of building stone, close by and of usable shape and size for the project at hand – in this instance, creating additional support for the sanctuary and dais, and perhaps also a newly installed organ.

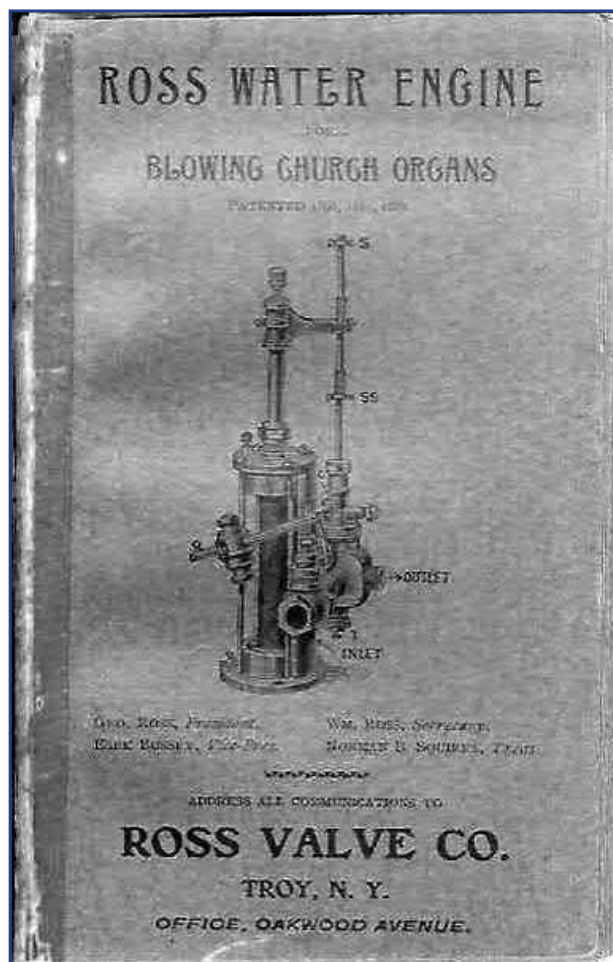
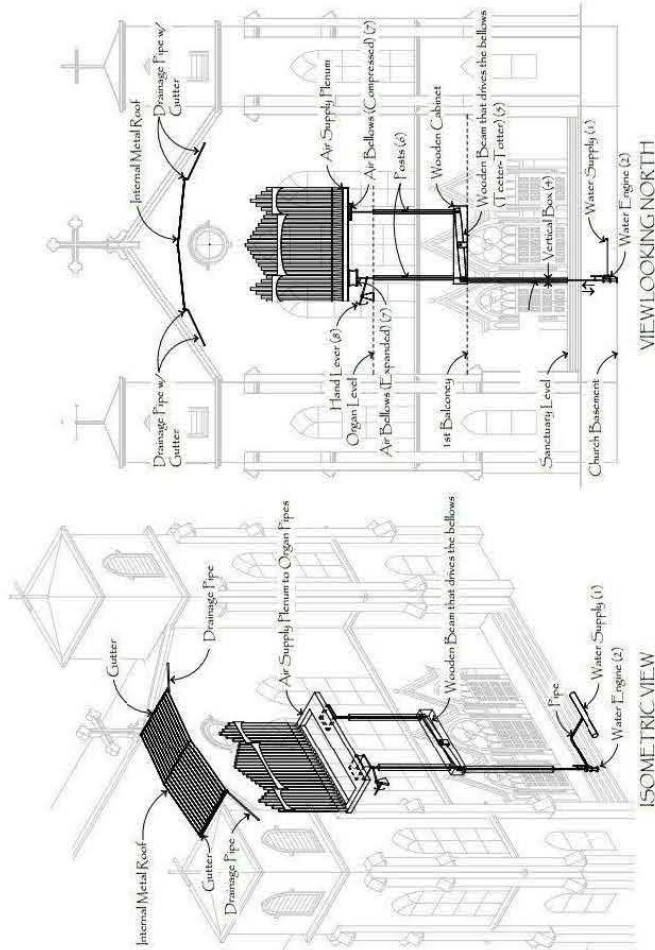


Figure 3.2. Title Page from a Ross Valve Co. Catalog Showing a Water Engine Used for Blowing Church Organs Closely Resembling the Example Documented at the First Reformed Church of New Brunswick. Source: Self 2017.

In the inventory of these grave marker fragments included as Appendix D, an attempt has been made to match up initials with the names of deceased memorialized individuals identified at the findagrave website (www.findagrave.com). Perhaps the most conclusive of these attributions is found for the initials “C.D.P.N.”, which almost certainly must reference Catharine Disborough Polhemus Nevius, who died on June 22, 1879. There is no meaningful pattern to the dates of death represented by those individuals potentially matched to these grave markers, which appear to range across the full span of the 19th century. The demise of Catharine Disborough Polhemus Nevius in 1879 and other potential later 19th-century death dates would appear to rule out the larger footprint of the 1811-12 church compared to that of the original 1767 church (and the consequent encroachment of the 1811-12 church on burials in the pre-existing churchyard) as being an explanation for the availability of these markers for re-use.

One other recovered stone fragment with inscribed letters is deserving of particular mention. This is a stone on which have been inscribed the letters of the alphabet along with an ampersand (Photograph 3.8). This would appear to be a “practice” piece which may also have served as a guide for stone carvers tasked

1887 Felgemaker Pipe Organ.
Original Water Power Mechanism with Protective Interior Roof



WATER POWERED PIPE ORGAN. In 1887 the pipe organ was built before electricity came into common use. It was a completely mechanical device. Wind to the pipes was provided by a water engine located in the church basement.

CELLAR LEVEL: THE WATER SUPPLY AND WATER ENGINE. The Dayton City Water Supply (1) was located below grade under the street in front of the church steps. A pipe fed the pressurized water horizontally to church property into utility area in a small cellar under the church steps, where the Water Engine (2) was located. The water engine connected to a drive rod (3) that moved vertically up/down. This drive rod extended upward from a small spot inside where the men's restroom is located today. This rod continued into and through the entire height of the church entrance way.

SANCTUARY LEVEL: THE TALL BOX. An enclosed Vertical Box (4) extended from floor to ceiling at the entrance vestibule of the church. This box protected people from coming into contact with the drive rod that was inside, and likely muffled the mechanical noise. That same box remains today as a pathway for electrical wiring.

FIRST BALCONY LEVEL: THE TEETER-TOTTER TWO MORE TALL BOXES AND A CABINET. This vertical drive rod was connected to one end of a rigid horizontal wooden beam that rocked on a pivot, to make a Teeter-Totter (5). This teeter-totter mechanism is located on the first balcony, enclosed in a wooden cabinet. Two vertical posts (6) extended upward from the top of each end of the teeter-totter. Similar in appearance to the vertical box at ground level, two vertical box enclosures of these rods extended from the wooden cabinet into the ceiling.

ORGAN LEVEL: TWO AIR BELLOWS. These two posts moved alternately up/down and compressing two Air Bellows (7) on each side of the organ on the next floor level to feed to the Air Supply Plenum (8).

HUMAN BACK-UP POWER. As a back-up, a person (known as a *calcant*, or *organ-pumper*) would operate a Lever (8) to the organ bellows in case the main mechanism might fail.

THE WATER ORGAN TODAY. The original water power mechanism is no longer functional, and its history had been mostly forgotten. The existence of the mechanism on the premises was unknown. It was in mid-summer, 2012, that the vestiges of the original water mechanism were discovered unexpectedly in the course of routine maintenance. That important moment led to a happy rediscovery of this important part of the history of Emmanuel Church.

PROTECTIVE INTERIOR ROOF IN THE ATTIC. A massive interior roof structure was constructed in the attic over the pipe organ, if the outside roof should leak, the water damage to the organ could be devastating. For additional protection, this second roof, constructed of raised-ridge sheet metal, wooden planks and beams, is positioned below the eaves of the church building and above the organ area, complete with metal gutters and downspouts. *Illustration by Darren Makins*
Information provided by Emmanuel Catholic Church, Dayton, OH – posted to <http://www.nsrhb.com/jps.org/watermanua/>

Figure 3.3. Diagram Showing the Water-Powered Operation of the 1887 Felgemaker Pipe Organ. Source: Self 2017.



Photograph 3.6. A Water Engine Installed in 1901 and Still Used to Power the Pipe Organ at St Michael's & All Angels Church in Averham, Nottinghamshire, England. Source: Self 2017.



Photograph 3.7. A selection of grave marker fragments recovered during the dismantling of the foundations beneath the sanctuary; scale in feet (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D2: 171].



Photograph 3.8. A grave marker fragment inscribed with practice or guide letters of the alphabet (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D2:156].

with memorializing graves in a Dutch Reformed “house style.” All of the grave marker fragments recovered during the course of the archaeological monitoring were retained and are in the safe keeping of the First Reformed Church.

Based on the position and composition of the foundations beneath the sanctuary, the existence of the water engine and the range of possible death dates derivable from the grave marker fragments (the most recent of which may be 1891), it is clear that the first floor at the western end of the church underwent at least one and possibly two major episodes of rebuilding. The brick masonry, into which the bluestone slab support for the water engine was bonded, evidently represent one event, linked to the installation of a new pipe organ (or at least a new organ power source) in the late 19th or early 20th century. The construction of a stair down into the crawlspace and insertion of a window in the northwest corner of the sanctuary also likely took place as part of this modification. The cinderblock foundations further to the east may represent another, entirely separate and later modification, elevation and expansion of the dais in the sanctuary. Both of these building episodes may well be documented in church records, a correlation that has not been attempted as part of the current work effort. The insertion of a rear door in the west wall of the church may also have coincided with one or other of these two building modifications, since it gives access to the sanctuary at the level of the elevated dais.

B. MONITORING OF EXCAVATIONS FOR NEW FIRST-FLOOR FRAMING AND FOUNDATIONS

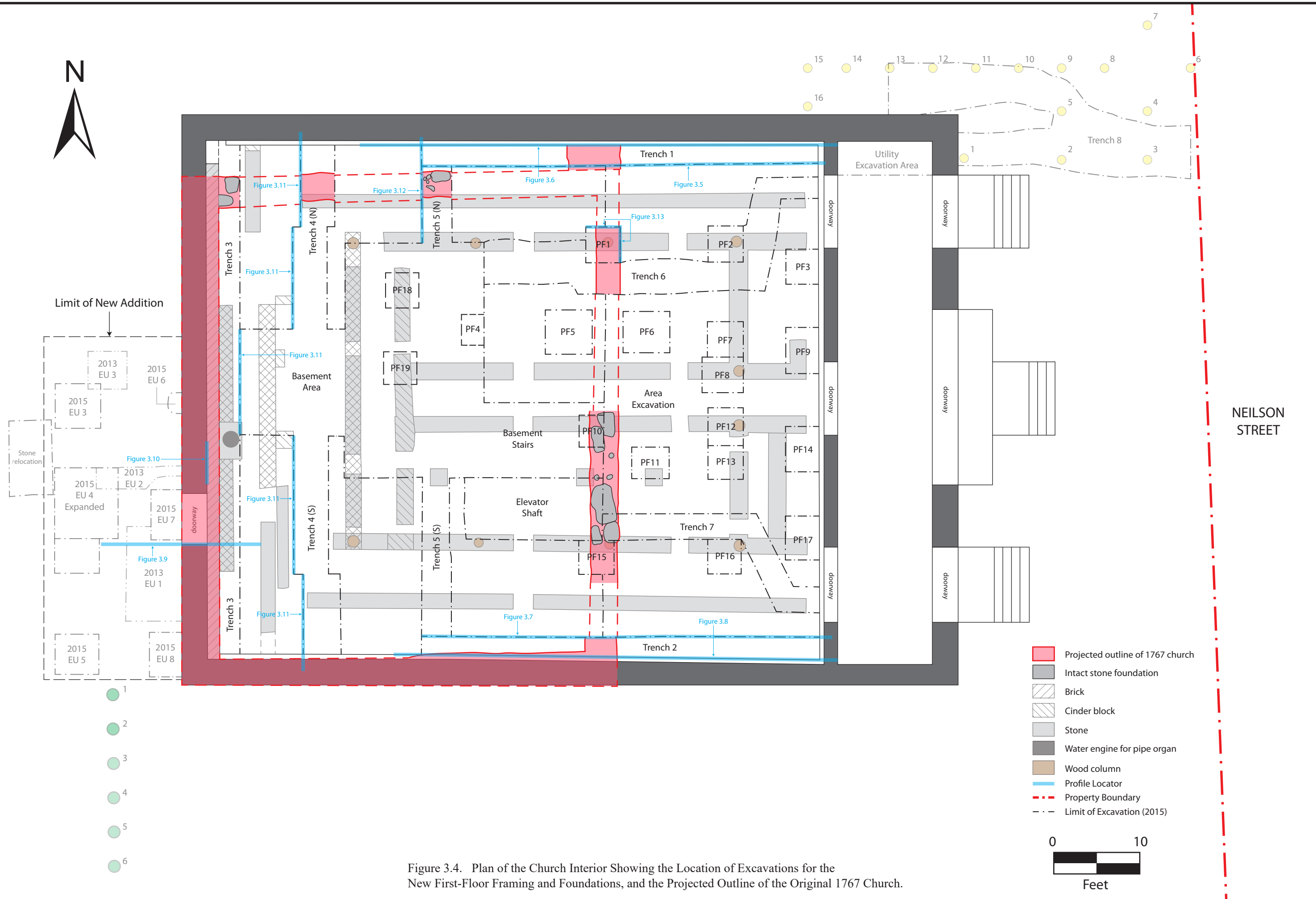
Following monitoring of the demolition of the interior of the church, a combination of observational and documentary archaeological monitoring was conducted inside the building for several excavations needed for the construction of the proposed new foundations,











support footings, basement and elevator shaft of Dina’s Dwellings. Additional observational monitoring was also conducted at the northeast corner of the church interior in the area where proposed utility excavations along the exterior north wall connected to existing utilities within the church foundation.

Monitoring of excavations within the church interior commenced on January 28 and was conducted intermittently until August 28, 2015 (Figure 3.4). Monitoring addressed the excavation of seven trenches (Trenches 1-7) for the proposed primary foundation walls, 19 excavation units (Pier Footings 1-19) for the proposed support piers and a larger excavation area for the proposed basement and elevator shaft (Basement and Elevator Shaft Excavation Areas). Observational monitoring of the Utility Excavation Area at the interior northeast corner of the church took place between August 27 and August 28, 2015. These latter excavations were completed to connect proposed utilities inside the church to Trench 8, which was excavated for the purpose of utilities installation along the exterior of the church (see below, Chapter 4).

1. Trenches 1-7

Trench 1 was excavated along the south, interior face of the north wall of the church extending westward from the northeast corner of the auditorium (Figures 3.4-3.6; Photographs 3.9 and 3.10). This trench, measuring approximately 45 feet long, two feet wide and 3.5 feet deep, was dug for the new foundations placed alongside and reinforcing the north wall of the church. Trench 1 opened with a 0.3-foot-thick layer of mottled loose sandy silt [Context 1] interpreted as a modern accumulation of dust and dirt. This layer overlaid abutting one-foot-thick deposits of mottled silty clay with pebbles [2, 6] and wet silty loam [3, 7] interpreted as subfloor fill within the church interior.



-  Projected outline of 1767 church
-  Intact stone foundation
-  Brick
-  Cinder block
-  Stone
-  Water engine for pipe organ
-  Wood column
-  Profile Locator
-  Property Boundary
-  Limit of Excavation (2015)

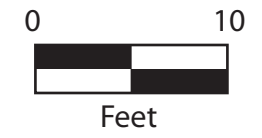
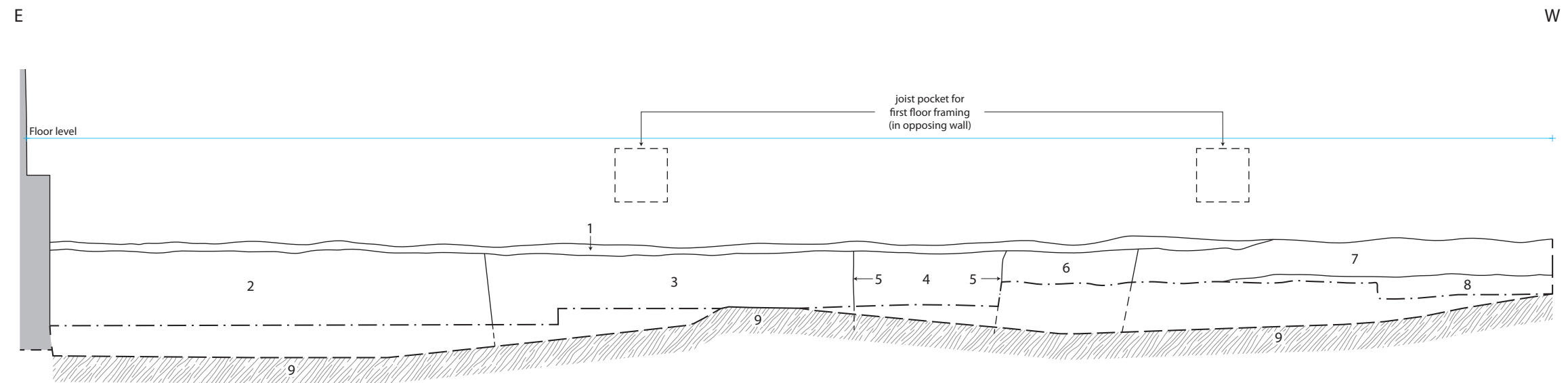






Figure 3.4. Plan of the Church Interior Showing the Location of Excavations for the New First-Floor Framing and Foundations, and the Projected Outline of the Original 1767 Church.

First Reformed Church of New Brunswick
Trench 1
South Profile



Context List

Context	Description [Interpretation] (Munsell)
1	Loose, dry mottled sandy silt [recent subfloor accumulation] (10YR 4/2, 10YR 4/4)
2	Mottled silty clay w/ pebbles [fill, 19th/20th century] (10YR 5/3, 10YR 4/6)
3	Mottled wet silty loam [fill, 19th/20th century] (10YR 2/1, 10YR 3/1)
4	Grey/pink mortar w/ some stone rubble [fill of robber trench for northeast corner of 1767 church, c. 1811-12] (10YR 6/1, 10YR 4/1)
5	Cut, filled by context 4 [robber trench for northeast corner of 1767 church, c. 1811-12]
6	Mottled silty clay w/ pebbles [fill, 19th/20th century] (10YR 5/3, 10YR 4/2)
7	Mottled wet silty loam [fill, 19th/20th century] (10YR 2/1, 10YR 3/1)
8	Weathered shale [subsoil]
9	Shale bedrock

-  Bedrock
-  Stone
-  Projected Bedrock
-  Limit of Excavation

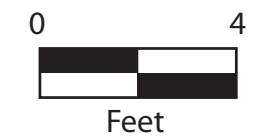


Figure 3.5. Church Interior, Trench 1, South Profile.

First Reformed Church of New Brunswick
 Elevation
 Church Interior North Wall after Trench 1 Excavation

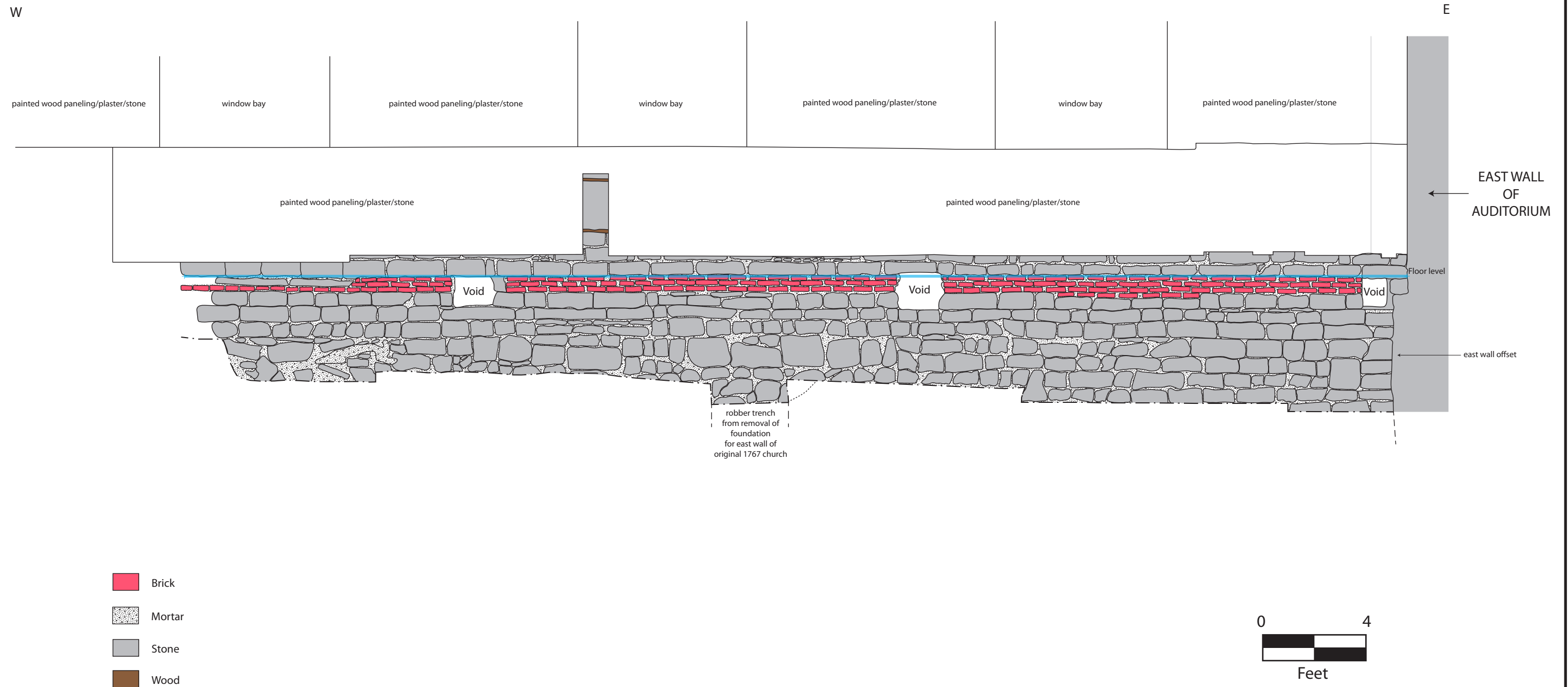


Figure 3.6. Church Interior, North Wall Elevation in Trench 1.



Photograph 3.9. View looking west showing Trench 1 fully excavated. At right is the stone masonry of the church's north wall foundation capped with three courses of brick on top of which the first floor of the auditorium was set. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:117].



Photograph 3.10. View looking northwest midway along Trench 1. In the floor of the trench to the left of the north arrow/small scale rod is a concentration of mortar, plaster and rubble cut into by the foundation for the church’s north wall. This material is thought to be the fill of a robber trench reflecting the removal of the foundation for the northeast corner of the original church of 1767 or of a north-south wall that extended north beyond the footprint of the original church. The top surface of the three courses of brick masonry represents the first-floor level of the auditorium. The rectangular recess in the foundation to the right of the vertical scale pole is a joist pocket for one of the principal members of the first-floor framing. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D2:237].

These soils overlaid decayed shale [8] which extended to the full depth of excavation where solid shale bedrock [9] was exposed.

Approximately 24 feet west of the east wall of the auditorium, a cut feature [5] containing a dense deposit of plaster and mortar mixed with schist and sandstone rubble [4] was identified in the south wall and base of the trench (Figure 3.5; Photograph 3.10). This deposit was six feet wide (east to west) and roughly lined up with similar deposits identified in Trenches 2 and 6, Pier Footings 1, 10 and 15, and the excavations for the new basement stairs and elevator shaft. In this instance, the deposit in Trench 1 was tentatively interpreted as a robber trench perhaps relating to the removal of the northeast corner of the original church built in 1767 (see below for further discussion) or the removal of a wall for an addition appended to the north side of this earlier church. Three displaced, probable human bone fragments were recovered during the excavation of Trench 1. These were documented in the field and returned to the church staff for safe keeping.

At the onset of the monitoring, the upper portions of the interior face of the north wall foundation were partly obscured by the whitewashed wood paneling that covered the walls of the auditorium. The excavation of Trench 1 adjacent to this wall exposed the lower portion of this foundation (Figure 3.6). The upper portion of the foundation, where exposed and visible, comprised four courses of roughly dressed, mostly rectangular, brownstone blocks. These were bonded together with a grayish pink mortar. This portion of the foundation is around three feet thick and mostly above the level of the ground surface outside the building.

The lower part of the foundation incorporated an offset which projected several inches into the church interior. This part of the foundation was constructed of rough-dressed stone masonry bonded with a greyish

pink mortar and capped with three courses of plain, red bricks which were pierced with a series of three 1.5-foot-square joist pockets spaced 18 feet apart. The joists set in these pockets would have been the principal framing members supporting the auditorium floor. The top surface of the brick masonry and the tops of the joist pockets thus represented the first-floor level of the auditorium. The offset portion of the foundation extended to a depth of at least five feet below the first-floor floor level and may well have contained stones re-used from the dismantled foundation of the earlier church (see below for further discussion).

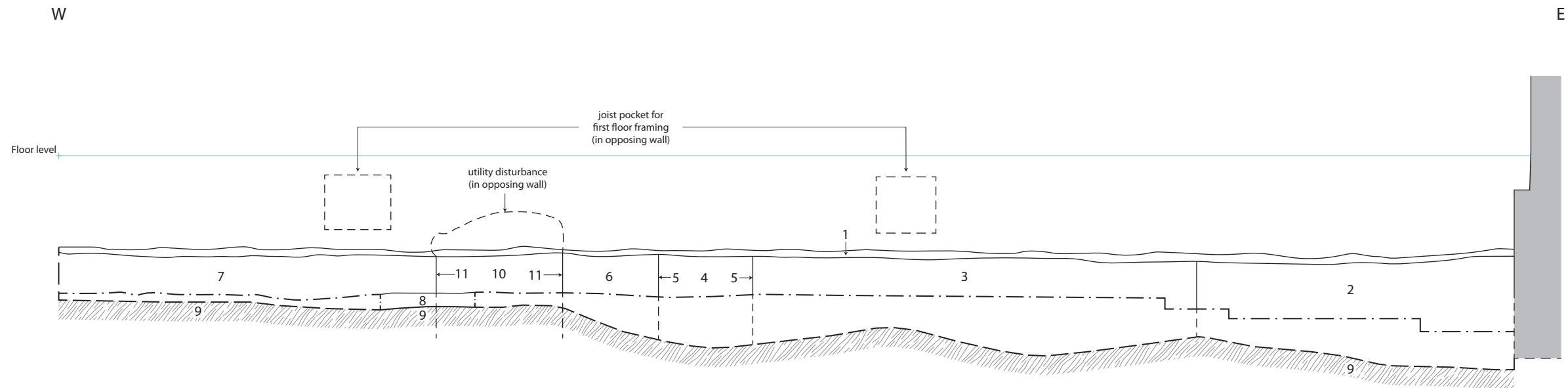
Trench 2 was excavated along the north, interior face of the south wall of the church extending westward from the southeast corner of the auditorium (Figures 3.4, 3.7 and 3.8; Photographs 3.11-3.14). Like Trench 1 on the opposite side of the church, this trench, measuring approximately 45 feet long, 2 feet wide and 3.5 feet deep, was dug for the new foundations placed alongside and reinforcing the south wall of the church. Trench 2 opened with a 0.3-foot-thick layer of mottled loose sandy silt [1] interpreted as a modern accumulation of dust and dirt. This layer overlaid abutting one-foot-thick deposits of mottled silty clay with pebbles [2, 6] and wet silty loam [3, 7] interpreted as subfloor fill within the church interior.

Approximately 24 feet west of the existing interior east wall, a cut feature [5] containing a dense deposit of plaster and mortar mixed with schist and sandstone rubble [4] was identified in the north wall of the trench (Figure 3.7; Photograph 3.12). This deposit was 3.5 feet wide (east to west) and lined up closely with similar deposits identified in Trenches 1 and 6, Pier Footings 1, 10 and 15, and the excavations for the new basement stairs and elevator shaft. As was the case with Trench 1, this deposit was interpreted as a robber trench representing the removal of a portion of the original church built in 1767, in this instance the southern end of the foundation for its eastern wall. Approximately three feet west of the robber trench,







Photograph 3.11. View looking west showing Trench 2 fully excavated. At left is the stone masonry of the church's south wall foundation capped with three courses of brick on top of which the first floor of the auditorium was set. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:108].

First Reformed Church of New Brunswick
Trench 2
North Profile



Context List

Context	Description [Interpretation] (Munsell)
1	Loose, dry mottled sandy silt [recent subfloor accumulation] (10YR 4/2, 10YR 4/4)
2	Mottled silty clay w/ pebbles [fill, 19th/20th century] (10YR 5/3, 10YR 4/6)
3	Mottled wet silty loam [fill, 19th/20th century] (10YR 2/1, 10YR 3/1)
4	Grey/pink mortar w/ some stone rubble [fill of robber trench for southeast corner of 1767 church, c. 1811-12] (10YR 6/1, 10YR 4/1)
5	Cut, filled by context 4 [robber trench for southeast corner of 1767 church, c. 1811-12]
6	Mottled silty clay w/ pebbles [fill, 19th/20th century] (10YR 5/3, 10YR 4/2)
7	Mottled wet silty loam [fill, 19th/20th century] (10YR 2/1, 10YR 3/1)
8	Weathered shale [subsoil]
9	Shale bedrock
10	Brick rubble w/ mottled silt [fill, 20th-century utility] (10YR 4/4, 10YR 5/3)
11	Cut, filled by context 10 [20th-century utility]

-  Bedrock
-  Stone
-  Projected Bedrock
-  Limit of Excavation

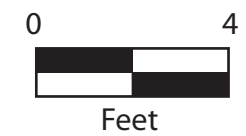


Figure 3.7. Church Interior, Trench 2, North Profile.

First Reformed Church of New Brunswick
 Elevation
 Church Interior South Wall after Trench 2 Excavation

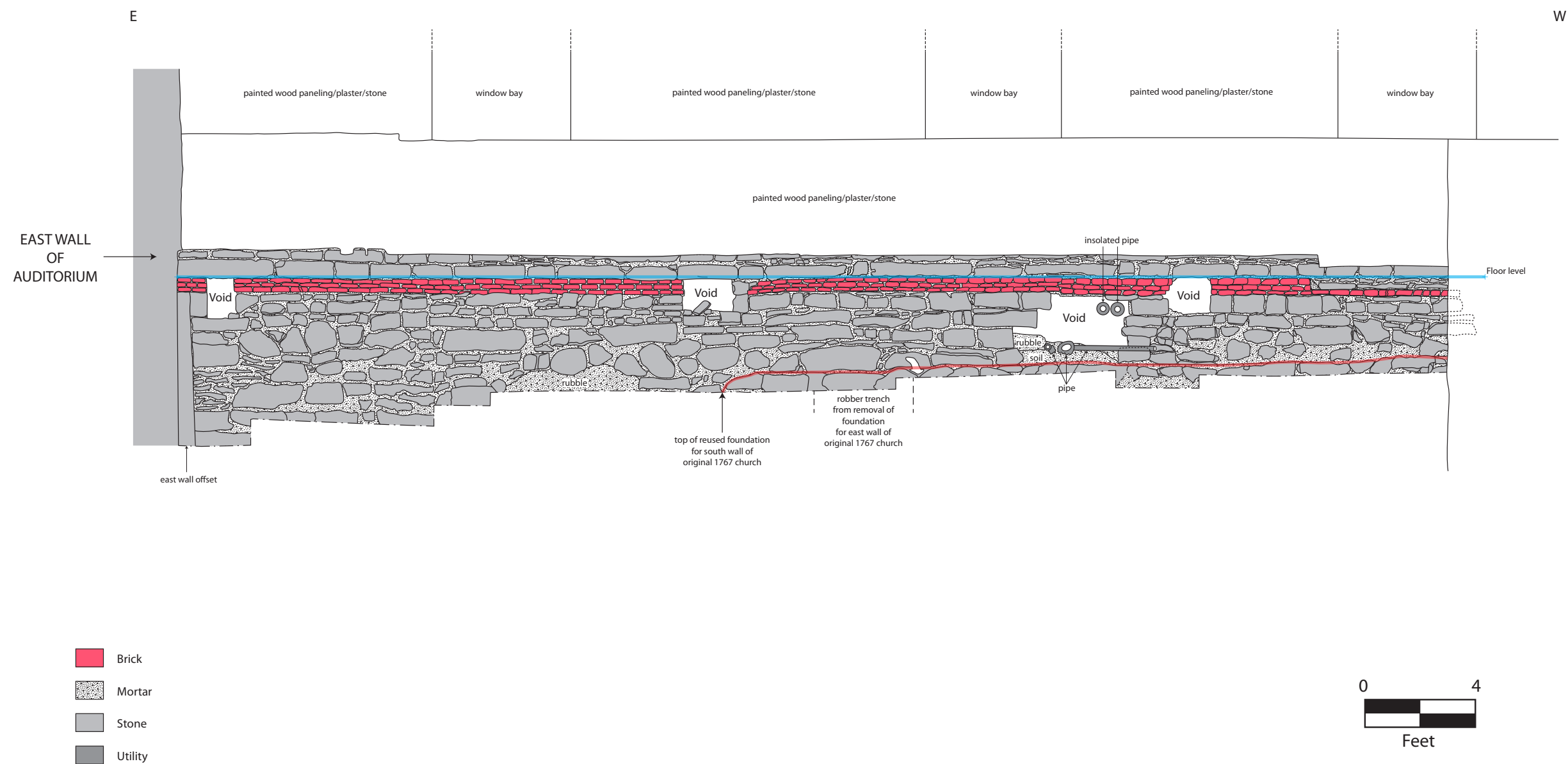


Figure 3.8. Church Interior, South Wall Elevation in Trench 2.



Photograph 3.12. View looking west showing the central portion of Trench 2 fully excavated. At left is the stone masonry of the church's south wall foundation. In the north wall (at right below the horizontal scale pole) and floor of the trench is a concentration of mortar, plaster and rubble thought to be the fill of the robber trench reflecting the removal of the foundation for the east wall of the original church of 1767. The lower part of the foundation extending west from the robber trench (i.e., away from the viewer) is offset and on a slightly different alignment to the masonry above and is considered to be a re-used, in-situ segment of the north foundation of the original church of 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D2:232].



Photograph 3.13. View looking southeast showing the western end of Trench 2. The ghosting in the whitewashed wall covering at top shows where the ends of pews were secured to the south wall of the church. The top surface of the three courses of brick masonry represents the first-floor level of the auditorium. The two higher rectangular recesses in the foundation are joist pockets for two of the principal members of the first-floor framing. The larger void with the protruding pipes is the result of a later intrusion caused by the installation of utilities. At the base of the vertical scale pole is an offset in the foundation which is on a slightly different alignment to the masonry above. This offset is considered to be a re-used, in-situ segment of the south foundation of the original church of 1767. The offset was absent to the east beyond the robber trench reflecting the removal of the foundation for the east wall of the original church of 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:188].



Photograph 3.14. View looking southeast showing the eastern end of Trench 2. The ghosting in the whitewashed wall covering at top shows where the ends of pews were secured to the south wall of the church. The top surface of the three courses of brick masonry represents the first-floor level of the auditorium. The rectangular recess in the foundation is a joist pocket for one of the principal members of the first-floor framing. Note that, unlike with the western section of this foundation in Trench 2, there is no offset in the masonry at the base of the foundation (cf. Photograph 3.13). Scales in feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:198].

a second cut feature [10] was identified, filled with dense brick rubble with mottled silt [11]. This intrusion was interpreted as a trench for some 20th-century utility pipes that were observed protruding from the south wall of the church. Both the robber trench and the utility trench were cut down into decayed shale [8]. This shale layer, interpreted as weathered bedrock, was encountered 1.45 feet below grade and extended to the full depth of excavation which terminated in shale bedrock [9].

As in Trench 1, the upper part of the foundation for the south wall was partly obscured by the white-washed wood paneling that covered the walls of the auditorium. The excavation of Trench 2 adjacent to this wall exposed the lower portion of this foundation (Figure 3.8). The upper portion of the foundation, where exposed and visible, comprised four courses of roughly dressed, mostly rectangular, brownstone blocks. These were bonded together with a grayish pink mortar. This portion of the foundation is around three feet thick and mostly above the level of the ground surface outside the building.

As with the church's north wall, the lower part of the foundation incorporated an offset composed of rough-dressed stone bonded with greyish pink mortar and capped with three courses of brick (Photographs 3.13 and 3.14). Again, a series of three 1.5-foot-square joist pockets spaced 18 feet apart were noted as settings for the principal framing members supporting the auditorium floor with the top surface of the brick masonry and the tops of the joist pockets again representing the first-floor level of the auditorium.

However, unlike the north wall foundation, the westernmost portion of the south wall foundation also contained a second stone offset, lower down toward the base of the trench, which followed a slightly different alignment to the rest of the masonry above (Photograph 3.13). This offset did not extend eastward beyond the point where the robber trench for the

east wall foundation of the original church of 1767 intersected with the south wall of the existing church. It is interpreted as a segment of the foundation for the south wall of the original church that was retained and incorporated into the south wall foundations of the church of 1811-12.

Trench 3 was excavated along the east, interior face of the west wall of the church extending north to south between the northwest and southwest corners of the auditorium (Figures 3.4, 3.9 and 3.10; Photographs 3.15 and 3.16). This trench, measuring approximately 59 feet long, 2.5 feet wide and one foot deep, was dug for the new foundations placed alongside and reinforcing the west wall of the church. A cross-section through the west wall shows it to be three feet thick above grade, while its foundation was between four and 4.5 feet thick at its base (Figure 3.9). The foundation was set on bedrock.

An elevation drawing of a portion of the interior face of the church's west wall was completed following the excavation of Trench 3 to illustrate details of the wall's masonry details (Figure 3.10). The base of the existing west wall foundation was exposed 0.7 feet below the top of the excavation (3.5 feet below the church's first-floor floor level. Trench 3 opened with a 0.3-foot-thick layer of loose clay silt [1] interpreted as modern accumulation of dust and dirt. This layer overlaid a clayey silt with decayed shale [2] interpreted as B-horizon subsoil which extended to the full depth of the excavation.

Approximately 2.5 feet south of the northern end of Trench 3 (i.e., just inside the northwest corner of the auditorium), part of a mortared stone footing [3] was identified (Photograph 3.15). This was interpreted as a possible remnant of the western end of the north wall foundation of the original church built in 1767. The masonry appeared to be partially bonded into the foundation of the west wall of the existing church building, suggesting that the original church's

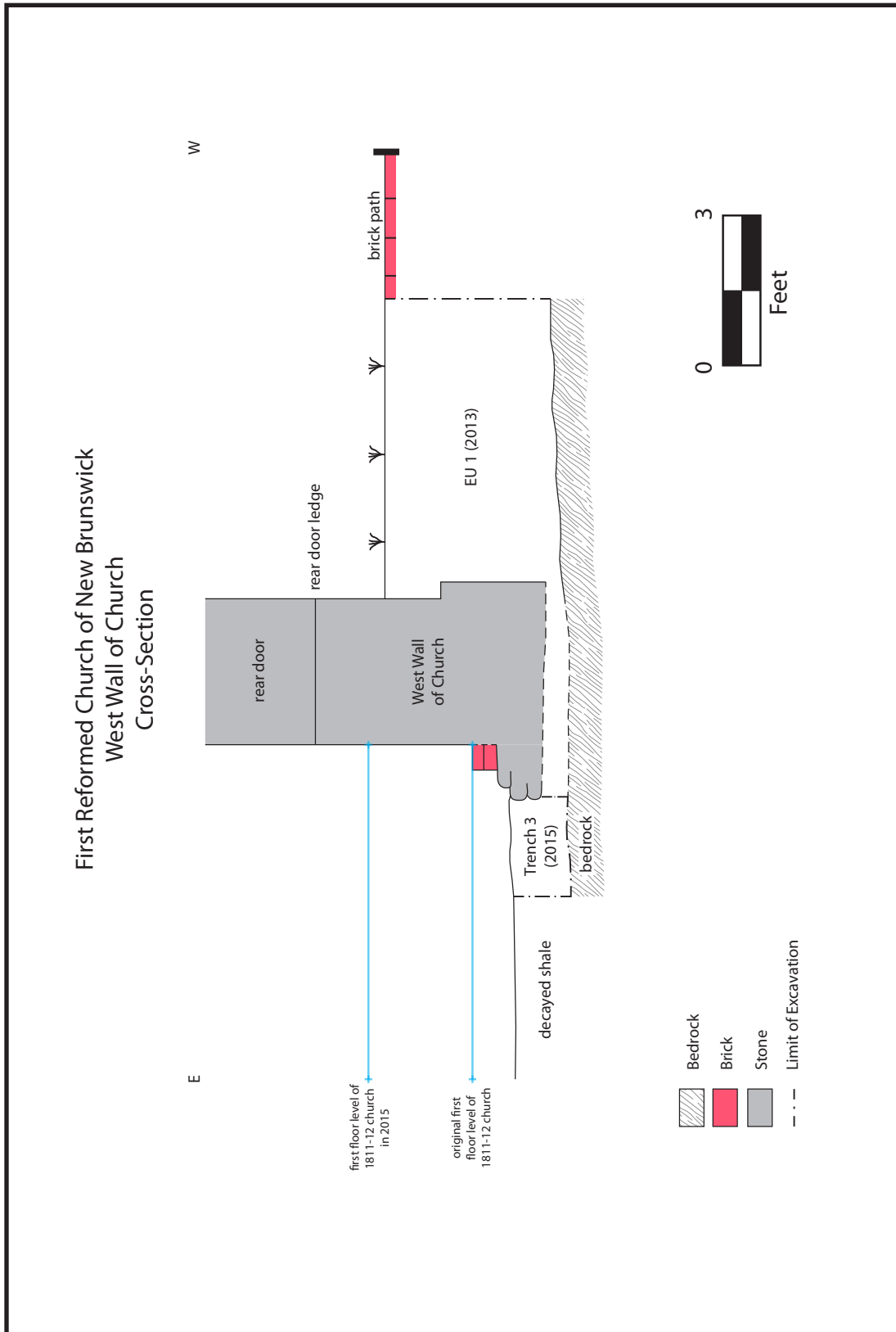


Figure 3.9. Cross-Section Through West Wall of Church Showing Interior and Exterior Elevations.

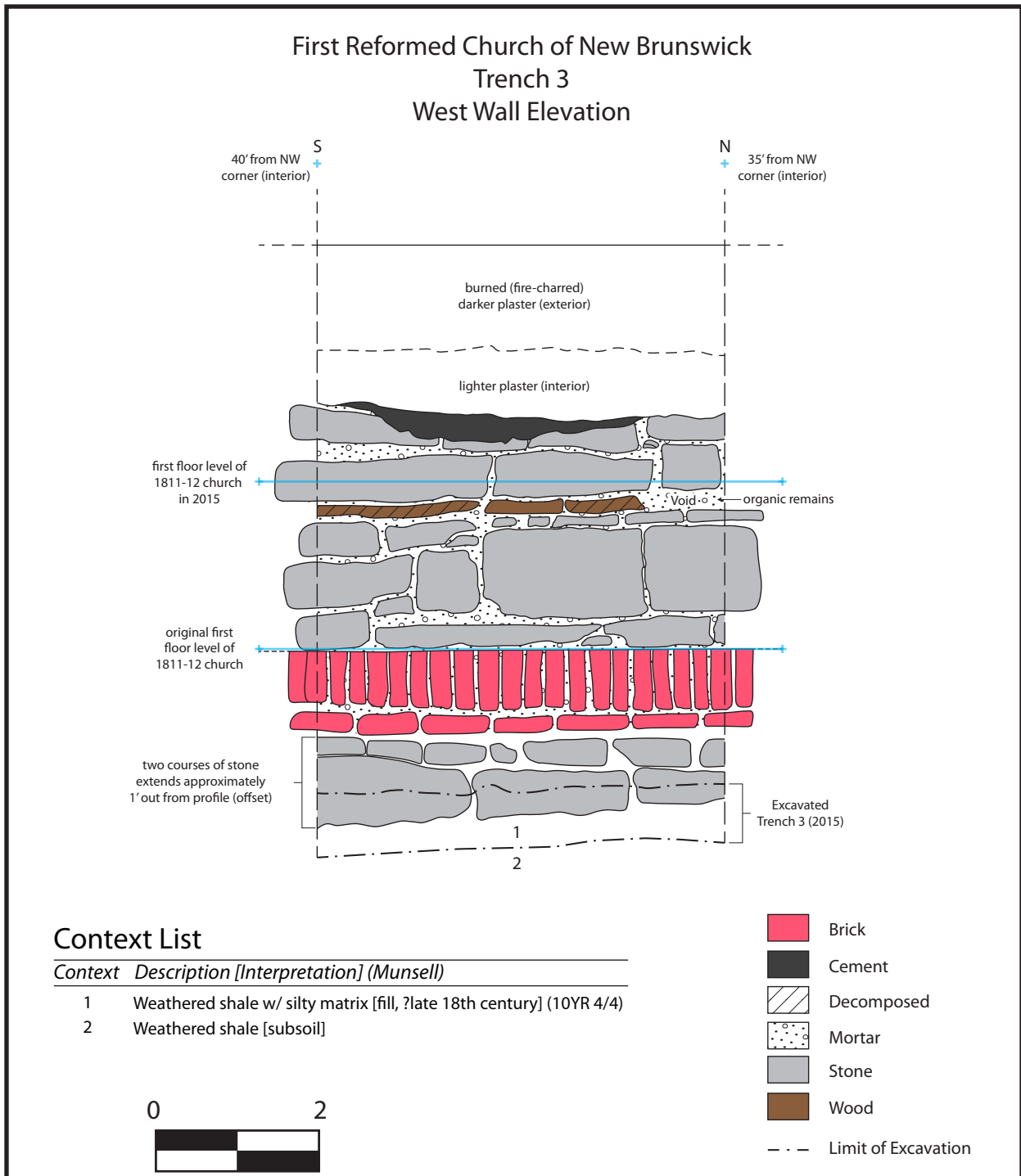


Figure 3.10. Church Interior, West Wall Elevation in Trench 3.



Photograph 3.15. View looking north showing the northern end of Trench 3 in the northwest corner of the auditorium. Note the four courses of brick masonry on top of the western stone foundation at left and three courses on the northern foundation at right, on top of which the first-floor framing for the dais was originally set (it was later raised to a higher elevation). A wooden nailer for lath and plaster wall covering is visible running horizontally in the west wall at left. The brick-arched opening with cast-iron lintel in the north wall in the center of the view is a former window opening inserted in the later 19th century to provide light for a stair giving access to the crawlspace. The large blocks of stone in the foreground are considered to be remnants of the northwest corner of the original church built in 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, January 2015) [HRI Neg. #15001/D2:246].



Photograph 3.16. View looking west showing part of the church’s west wall and foundation. The top of the two to three courses of brick masonry represents the level of the first floor in the auditorium. The wood nailer above has a section wall plaster still attached. The stone masonry beneath the bricks is conjectured to be part of the foundation of the original church built in 1767 re-used in the present church of 1811-12. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:030].

west wall coincided with that of the existing church and was re-used as part of the latter's construction (Photograph 3.16). The foundation remnants at the northern end of Trench 3 were of similar width and continued the alignment of the robber trench and foundation fragments identified in Trenches 4 and 5; these features are all thought to represent traces of the original's church's northern wall. The foundation remnants identified in Trench 3 were preserved in place and sealed by the concrete poured for the new footings.

A notable feature at the western end of the foundation for the north wall of the church was a brick-arched window opening with a cast-iron lintel (Photograph 3.15). Clearly a later insertion into the exterior wall of the church, this window is thought to have provided light for a stair leading down into the crawlspace in the northwest corner of the building. Other modifications in brick to the corner foundation also appear to be related to this stairway, which is thought to have been added in the later 19th century, possibly coincident with the installation of the water engine for the pipe organ, which would have required access for maintenance purposes.

Trench 4, roughly four feet wide and up to two feet deep, was excavated approximately 8.5 feet east of the interior face of the church's west wall and extended the full north-south width of the church interior (Figures 3.4 and 3.11; Photograph 3.17). The trench was divided into northern and southern sections, 21 and 25 feet in length respectively, separated by a 12-foot-wide gap in the center of the auditorium, where the larger Basement Excavation Area was located. Trench 4 opened with a 0.4-foot-thick layer of loose dry mottled sandy silty [1] which was interpreted as a modern accumulation of dust and dirt. A single brownstone fragment, likely from a burial marker, was identified in this layer near the center of the trench. Toward the southern end of the trench, the soils had been disturbed by a deposit of organic loam

with roots [5] considered to be the result of intrusive plant growth extending through the church's south wall and into the building interior.

Approximately 2.75 feet from the north end of the trench, a cut feature [3] containing a dense deposit of plaster and mortar mixed with schist and sandstone rubble [4] was identified (Photograph 3.17). This cut was three feet in width from north to south and followed the same east-west alignment of the truncated foundation remnants identified in Trenches 3 and 5. This cut was interpreted as a robber trench associated with the removal of the foundation for the north wall of the earlier church built in 1767. The robber trench was approximately 0.6 feet deep and cut into the natural weathered shale [2] that overlay shale bedrock.

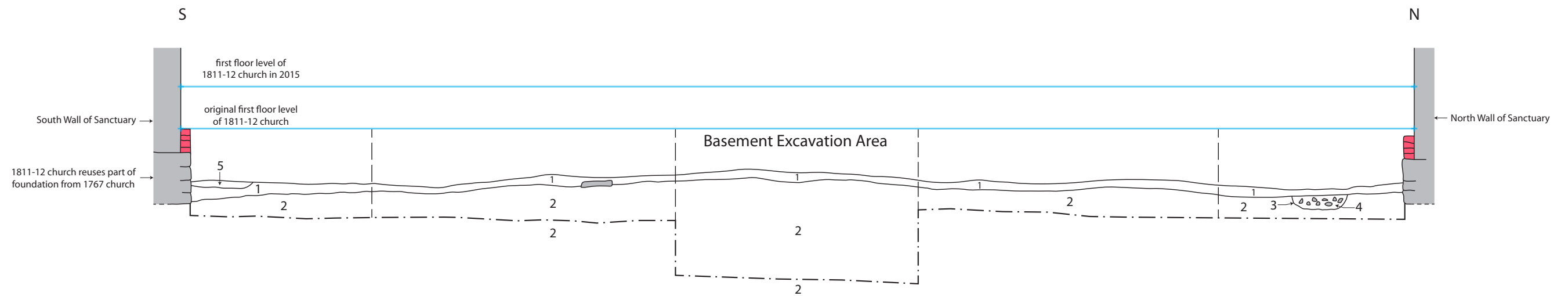
Trench 5, roughly 3.5 feet wide and up to two feet deep, was excavated approximately 23.5 feet east of the interior face of the church's west wall and extended the full north-south width of the church interior (Figures 3.4 and 3.12). As with Trench 4, Trench 5 was divided into northern and southern sections, 11.5 and 13 feet in length respectively, separated by a 12-foot-wide gap in the center of the auditorium, where the larger Basement Excavation Area was located. The northern end of Trench 5 intersected with the west end of Trench 1's south profile (Photograph 3.18). The southern end of Trench 5 intersected with west end of Trench 2's north profile.

Trench 5 opened with a 0.4-foot-thick layer of loose dry mottled sandy silt [1] which was interpreted as a modern accumulation of dust and dirt. Approximately 1.8 feet from the north end of the trench, a cut feature [3] was identified containing a dense deposit of plaster and mortar mixed with schist and sandstone rubble [2]. The cut was 3.45 feet in width from north to south and followed the same east-west alignment of the foundation remnants in Trenches 3 and the robber trench in Trench 4. The cut was again interpreted as part of a robber trench associated with the removal of



Photograph 3.17. View looking northwest showing the cut feature filled with mortar, plaster and rubble which is interpreted as the robber trench reflecting the removal of the foundation for the north wall of the original church of 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D5:024].

First Reformed Church of New Brunswick
Trench 4
West Profile



Context List

Context	Description [Interpretation] (Munsell)
1	Loose, dry mottled sandy silt [recent subfloor accumulation] (10YR 4/2, 10YR 4/4)
2	Weathered shale [subsoil]
3	Cut, filled by context 4 [robber trench of north foundation for 1767 church, c. 1811-12]
4	Plaster, mortar and bluestone rubble w/ silt matrix [fill of robber trench of north foundation for 1767 church, c. 1811-12]
5	Organic root mat/loam [modern disturbance] (10YR 3/1)

- Brick
- Stone
- - - Limit of Excavation

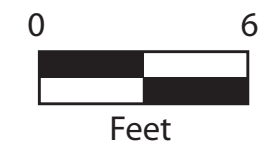


Figure 3.11. Church Interior, Trench 4, West Profile.

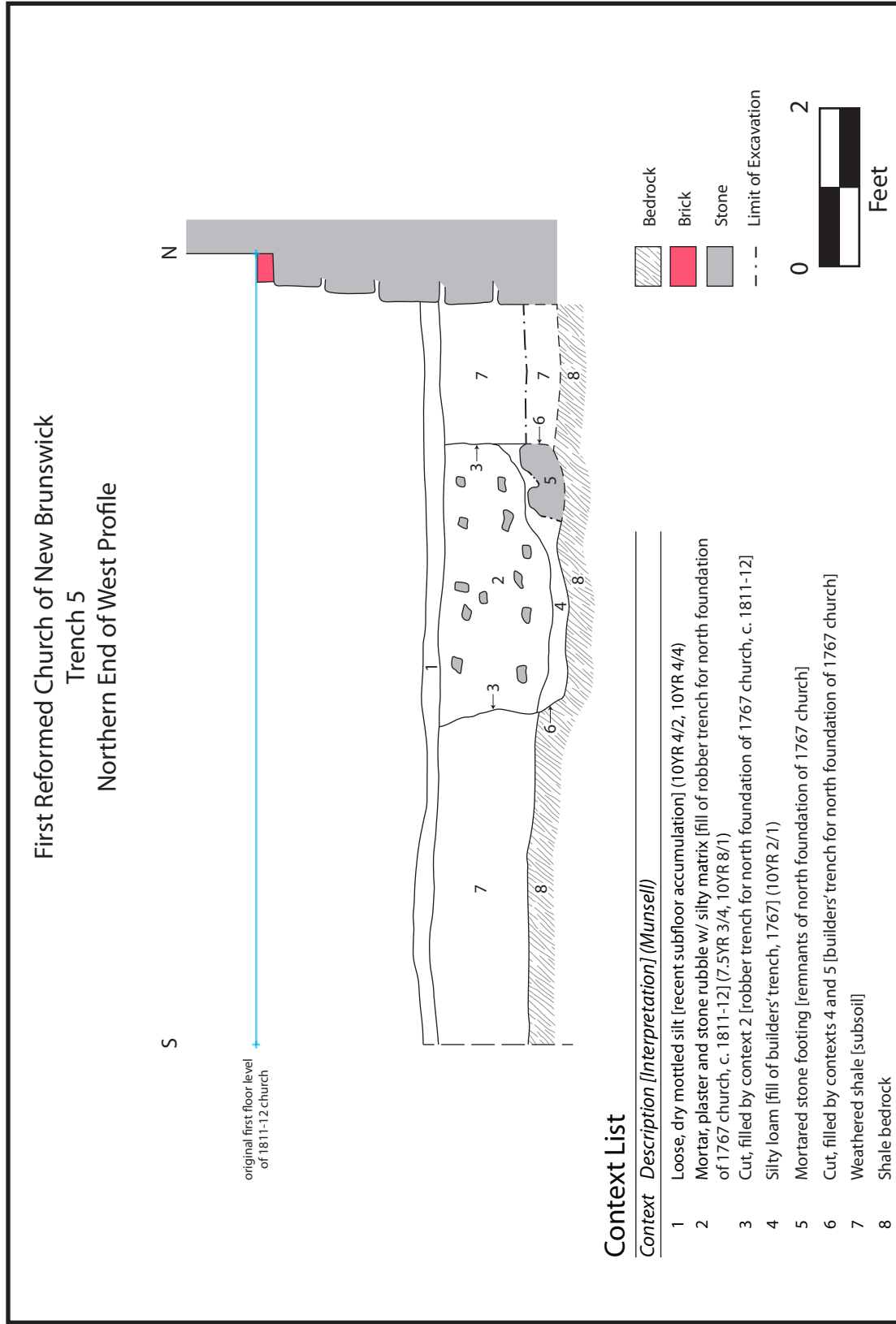


Figure 3.12. Church Interior, Trench 5, West Profile, Northern Portion.



Photograph 3.18. View looking west showing the west profile at the north end of Trench 5 where it intersected with the south profile of Trench 1. The north wall of the 1811-12 church is at right. The mixed plaster, mortar and rubble fill of the robber trench resulting from the removal of the original church's north wall is visible in the soil profile to the left of the vertical wood post. Remnants of the foundations of the original church's north wall are visible in the base of the trench directly beneath. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D5:150].

foundation masonry from the north wall of the earlier church built in 1767. The robber trench was approximately 1.4 feet deep and intruded on a second deeper cut feature [6] of similar dimensions. This deeper cut, possibly the bottom of a builders' trench, contained a thin, 0.2-foot-thick layer of silty loam [4] thought to be associated with the construction of earlier church. In the northern end of the cut, the fill overlaid a cluster of mortared stone [5], including one large boulder, which together were interpreted as the remnants of the foundations for the original church's north wall (Photograph 3.18). Both the robber trench and the deeper, possible builders' trench cut into the weathered shale subsoil [7], which was initially exposed 0.2 feet below the top of the excavation and extended to a depth of 1.2 feet. The weathered shale directly overlaid solid bedrock [8] which was ultimately exposed throughout Trench 5.

Trench 6, approximately 40 feet long, 4 feet wide and 2.5 feet deep, was excavated roughly east to west across the northeast quadrant of the auditorium after the completion of the excavations for several pier footings and for the larger Basement Excavation Area (Figure 3.4). The trench opened with a 0.3-foot-thick layer of loose clay silt [1] interpreted as a modern accumulation of dust and dirt. This overlaid a clayey silt with decayed shale [2] interpreted as a B-horizon subsoil which extended to a depth of approximately two feet below the ground surface. This layer in turn overlaid a culturally sterile, dense weathered shale [3] which extended to the full depth of excavation.

Approximately 24 feet west of the east wall of the auditorium, immediately south of Pier Footing 1, a cut feature [5] was identified in the south profile of the trench containing a dense concentration of plaster and mortar mixed with schist and sandstone rubble [4] (Photograph 3.19). This feature was 2.5 feet in width from east to west and appeared to run on a north-south alignment continuing a similar deposit that had been exposed and documented in excavations for nearby

Pier Footing 1. In both Trench 6 and Pier Footing 1, this feature was interpreted as a robber trench resulting from the removal of the foundation for the east wall of the original church built in 1767. A single bone fragment, probably human, was recovered during the excavation of Trench 6. This was documented in the field and immediately returned to the church for safe keeping.

Trench 7, approximately 30 feet long, 3 feet wide and 2 feet deep, was excavated roughly east to west across the southeast quadrant of the auditorium after the completion of the excavations for several pier footings and the Elevator Excavation Area (Figure 3.4). The trench commenced at the southeast corner of the Elevator Excavation Area, where *in-situ* remnants of the original church's east foundation had been identified (see below). It then extended along the north side of Pier Footings 15 and 16 before turning southeast and terminating at the east wall of the auditorium. Trench 7 opened with a 0.3-foot-thick layer of loose clay silt [1] interpreted as a modern accumulation of dust and dirt. This layer overlaid a clayey silt with decayed shale [2] interpreted as a B-horizon subsoil which extended to a depth of approximately two feet below the ground surface. This layer in turn overlaid a culturally sterile, dense weathered shale [3] which extended to the full depth of excavation.

Approximately 24 feet west of the east wall of the auditorium, remnants of a mortared stone foundation [3] were identified (Photograph 3.20). These followed the north-south alignment of similar foundation remnants exposed in the adjacent Elevator Excavation Area. Together, these foundations were interpreted as surviving traces of the foundation for the east wall of the original church built in 1767. These foundation remnants were of similar width and followed the same alignment as the robber trench identified in Trenches 1, 2 and 6 and Pier Footings 1 and 15. The founda-



Photograph 3.19. View looking east showing the south profile of Trench 6 at right and the concentration of mortar and stone rubble interpreted as a robber trench reflecting the removal of the foundation for the east wall of the original church built in 1767. Pier Footing 1 has been recently installed at left, replacing the mortared stone foundation that had originally supported the wooden column above. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:142].



Photograph 3.20. View looking east showing the mortared stone footings encountered along the north profile of Trench 7. These remains are interpreted as part of the eastern foundation of the original church built in 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:091].

tion remnants identified in Trench 7 were preserved in place and sealed by the concrete poured for the new footings.

2. Pier Footings 1-19

Excavations for 19 pier footings [Pier Footings 1-19] were conducted concurrent with other excavations and construction activity taking place within the interior of the auditorium (Figure 3.4; Photograph 3.21). Footing excavations were generally between four and five feet square in plan and extended to depths of between 3 and 4 feet. Pier Footings 4, 10, 18 and 19 were excavated within the base of the Basement and Elevator Area Excavations and were extended deeper into the natural bedrock than elsewhere, well below the depth of archaeological concern. The remaining footings were located in the eastern half of the auditorium and were completed through a combination of manual and mechanical excavation. Footings 1-3, 5-9 and 11-17 generally commenced from a shallower depth similar to the trench excavations. In most cases, the footing excavations first removed the 0.3-foot-thick layer of loose clay silt [1] found throughout most of the church interior and interpreted as a modern accumulation of dust and dirt. This layer typically overlaid a clayey silt with decayed shale [2] interpreted as B-horizon subsoil which extended to approximately two feet below the ground surface. This layer in turn overlaid a dense weathered shale [3] which ultimately blended into a solid shale bedrock. Few artifacts were recovered and the principal cultural features of interest were traces of the foundations of the original church of 1767 and the robber trenches associated with the removal of these foundations.

The excavation pit for **Pier Footing 1** yielded the typical soil profile outlined above (Figures 3.4 and 3.13; Photograph 3.22). In the eastern half of the footing excavation, a shallow cut feature [4 and 5] was visible at the surface where a balcony support pier had been

removed during the current project. This intruded into a larger and deeper cut feature [7], 3.5 feet wide (east to west) and approximately 3 feet deep, that was filled with a dense concentration of plaster and mortar mixed with schist and sandstone rubble [6]. This feature ran north-south continuing the line of a similar deposit exposed in the adjoining Trench 6 (see above) (Photographs 3.16 and 3.22). In both excavations, the feature was interpreted as a robber trench reflecting the removal of the foundation for the east wall of the original church built in 1767. One human bone fragment, likely a young adult rib fragment, was recovered from this trench fill. It was documented in the field and returned to the church for safe keeping.

In most cases, the archaeological monitor was able to oversee the dismantling, removal, excavation and replacement of the original mortared stone footings for the second-floor balcony columns as well as excavations for additional footings for the new second floor construction (Photographs 3.23 and 3.24). These excavations generally showed the original support footings extending to a depth of one foot below the surface and cutting into the top of the weathered shale bedrock or other natural subsoil. The excavations for the replacement and new footings extended considerably deeper than this into the weathered shale and subsoil. Pier footing excavations adjacent to the east wall of the auditorium also provided a useful window, allowing inspection of the masonry of the foundations for this wall (Photograph 3.25).

The excavation pit for **Pier Footing 15** revealed the typical soil profile outlined above (Figure 3.4; Photograph 3.26). In the east half of the pier footing excavation, a cut feature [7] was identified containing a concentration of plaster and mortar mixed with schist and sandstone rubble [6] (see also, Photograph 3.16). This feature was 2.4 feet wide (east to west) and approximately 2.8 feet deep. It appeared to run north-south continuing the line of the foundation remnants exposed in the Elevator Excavation Area and the



Photograph 3.21. View facing north showing the church interior at the start of pier footing excavations. The deep excavation between the temporary props holding up the balcony was dug to allow installation of a temporarily removed wood column on a new concrete and cinderblock footing (Pier Footing 1). Scale in feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:179].

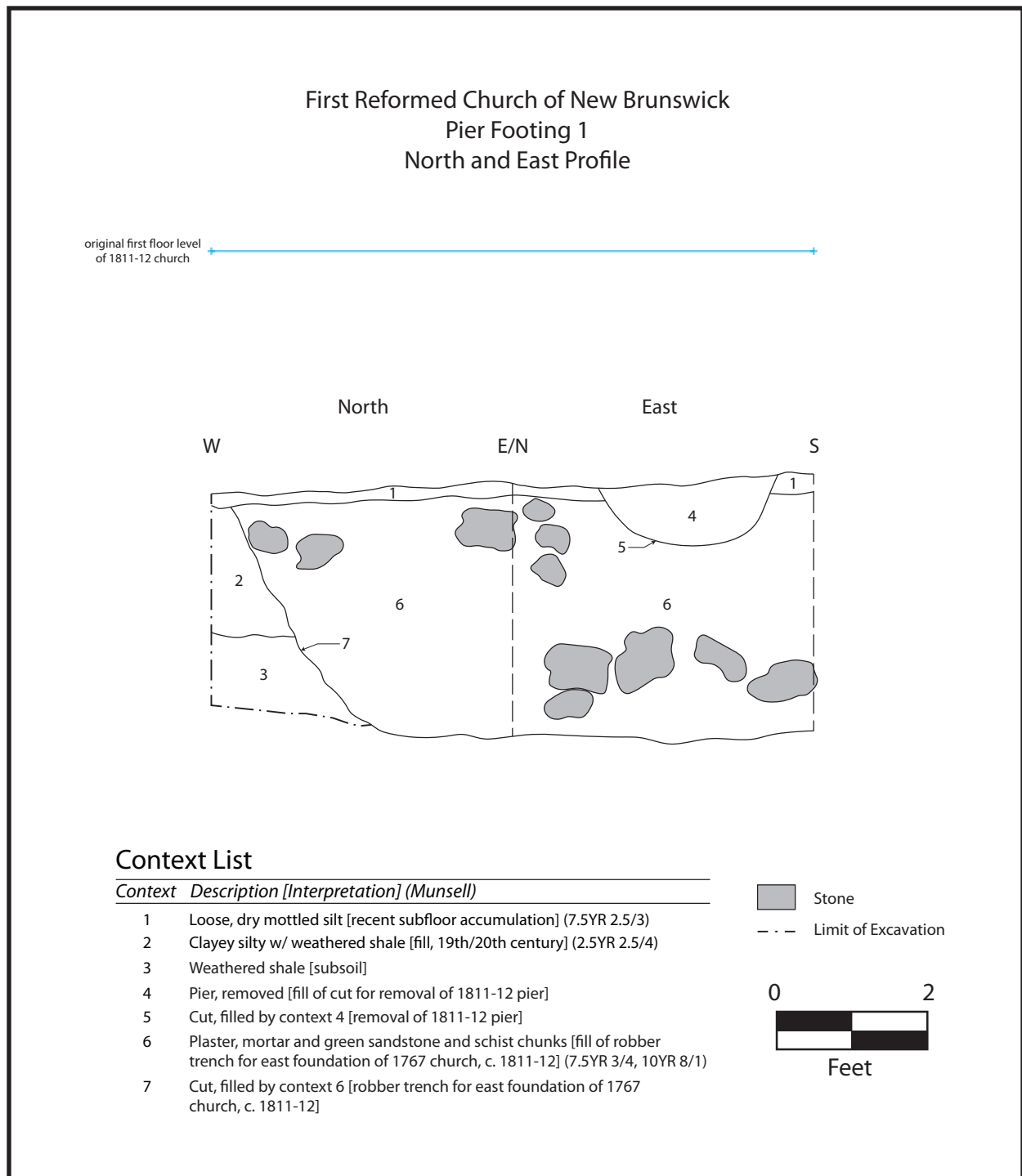


Figure 3.13. Church Interior, Pier Footing 1, North and East Profile.



Photograph 3.22. View facing north showing the north profile of the excavation for Pier Footing 1. Behind and to the left of the vertical scale pole is the robber trench resulting from the removal of the foundation for the east wall of the original church built in 1767. Note that in this view the center wood column along the northern side aisle has been temporarily removed (and its mortared stone foundation permanently removed), pending a replacement footing being installed in the excavated pit. Scales in feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:157].



Photograph 3.23. View looking southeast showing the original mortared stone footing for the column that supported the second-floor balcony on the north side of the main aisle (the column has been temporarily removed to allow for replacement of the footing) (Pier Footing 8). The footing for the companion column on the south side of the main aisle has been replaced (Pier Footing 12) and the entire area has by this time been excavated down to the base of the new and old pier footings (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D5:194].



Photograph 3.24. View looking west showing the completed excavation for Pier Footing 8 which facilitated the removal and replacement of the mortared stone footing for the wood column that supported the second-floor balcony on the north side of the main aisle. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D5:215].



Photograph 3.25. View looking south southeast along the face of east wall of the auditorium showing the excavations for Pier Footings 9, 14 and 17. Scales in feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:096].



Photograph 3.26. View looking north showing the north profile of the excavation pit for Pier Footing 15. To the right of the vertical scale pole is the cut and rubble fill of the robber trench resulting from the removal of the foundation for the east wall of the original church built in 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, February 2015) [HRI Neg. #15001/D3:080].

robber trench exposed in Trench 6 and in the excavation for Pier Footing 1. Once again, the feature found in the excavation for Pier Footing 15 was interpreted as part of a robber trench reflecting the removal of the foundation for the east wall of the original church built in 1767.

The excavation pit for **Pier Footing 16** also revealed a profile resembling those observed in other nearby pier footing excavations (Photograph 3.27). In the east, west and south profiles, the loose silty clay [1] interpreted as a disturbed subfloor accumulation directly overlaid a clayey silt with dense shale [2] interpreted as a B-horizon subsoil, which, in turn, overlaid dense weathered shale [3]. However, the upper half of the north profile was noticeably disturbed and a deposit of mottled silty clay with dense shale fragments extended to 1.5 feet below grade. This appeared to overlie a narrow band of darkened silt with shale fragments. This anomaly in the soil profile was interpreted as a possible burn layer in the field and may relate to 20th-century disturbance of the site. It directly overlaid the naturally occurring weathered shale which continued to the full depth of the excavation.

3. Basement and Elevator Excavation Areas

The **Basement Excavation Area** was excavated to a depth of roughly five feet in the western half of the auditorium (Photographs 3.28 and 3.29). The irregularly shaped area measured 41 feet from east to west and between nine and 27 feet from north to south. The narrow eastern end was excavated for construction of a basement stairway, while the western end made room for a new hot water heater. The large space in between was to contain a large basement room. The soil profile was generally consistent with most of the other interior excavations, especially Trenches 4 and 5. The soil sequence opened with a 0.4-foot-thick layer of loose silty clay [1] interpreted as a disturbed

subfloor accumulation of dust and dirt. This layer directly overlaid natural weathered shale [2] to a depth of 1.4 feet below grade beneath which was solid bedrock to the full depth of the excavation.

The **Elevator Excavation Area** was located immediately south of and adjacent to the location of the basement stairs at the east end of the Basement Excavation Area (Photograph 3.30). The soil profile was essentially the same as revealed in other nearby excavations. However, in the east profile, the modern subfloor accumulation [1] overlaid a 0.8-foot-thick layer of plaster and mortar mixed with schist and sandstone rubble [2]. This latter layer directly overlaid a substantial mortared stone foundation [3] running north to south along the east end of the excavation area (Figure 3.14). This remnant masonry feature comprised white mortar on boulders, smaller rocks and at least one partially dressed stone. The exposed portion of the foundation measured approximately 12 feet in length and was three feet wide and 1.4 feet thick. Along its eastern edge, a builders' trench [4] appeared to cut into the culturally sterile weathered shale [6] which is presumed to overlie solid bedrock. Along its western edge, two large stones had been dislodged by the contractor's excavations. However, traces of the robber trench [5] associated with the removal of the upper portion of the foundation were also observed, filled with mortar, plaster and rubble material similar to that identified in Trench 6 and the excavations for Pier Footings 1 and 15. This feature was generally encountered at a depth of between 3.65 and 3.95 feet and shared the same north-south alignment as the robber trench found in these other nearby excavations. On this basis, the masonry was interpreted as remnants of the foundation for the east wall of the original church built in 1767.

Throughout the interior of the auditorium, features related to the original church foundation were preserved in place wherever possible. The remnants of the east wall of the original church in the Basement



Photograph 3.27. View looking northwest showing part of the north profile of the excavation pit for Pier Footing 16 with a dark band in the soil profile possibly representing an episode of burning. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D7:022].



Photograph 3.28. View looking west showing the fully excavated Basement Excavation Area at the western end of the auditorium. Note the cinderblock foundation has been installed to reinforce the interior face of the church’s western foundation. Scales in feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D6:052].



Photograph 3.29. View looking south showing the Basement Excavation Area with the installation of new footings in progress (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D6:169].



Photograph 3.30. View looking south showing the excavation of the Elevator Excavation Area in progress. The mortared masonry at left is interpreted as part of the foundation for the east wall of the original church built in 1767. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D6:133].

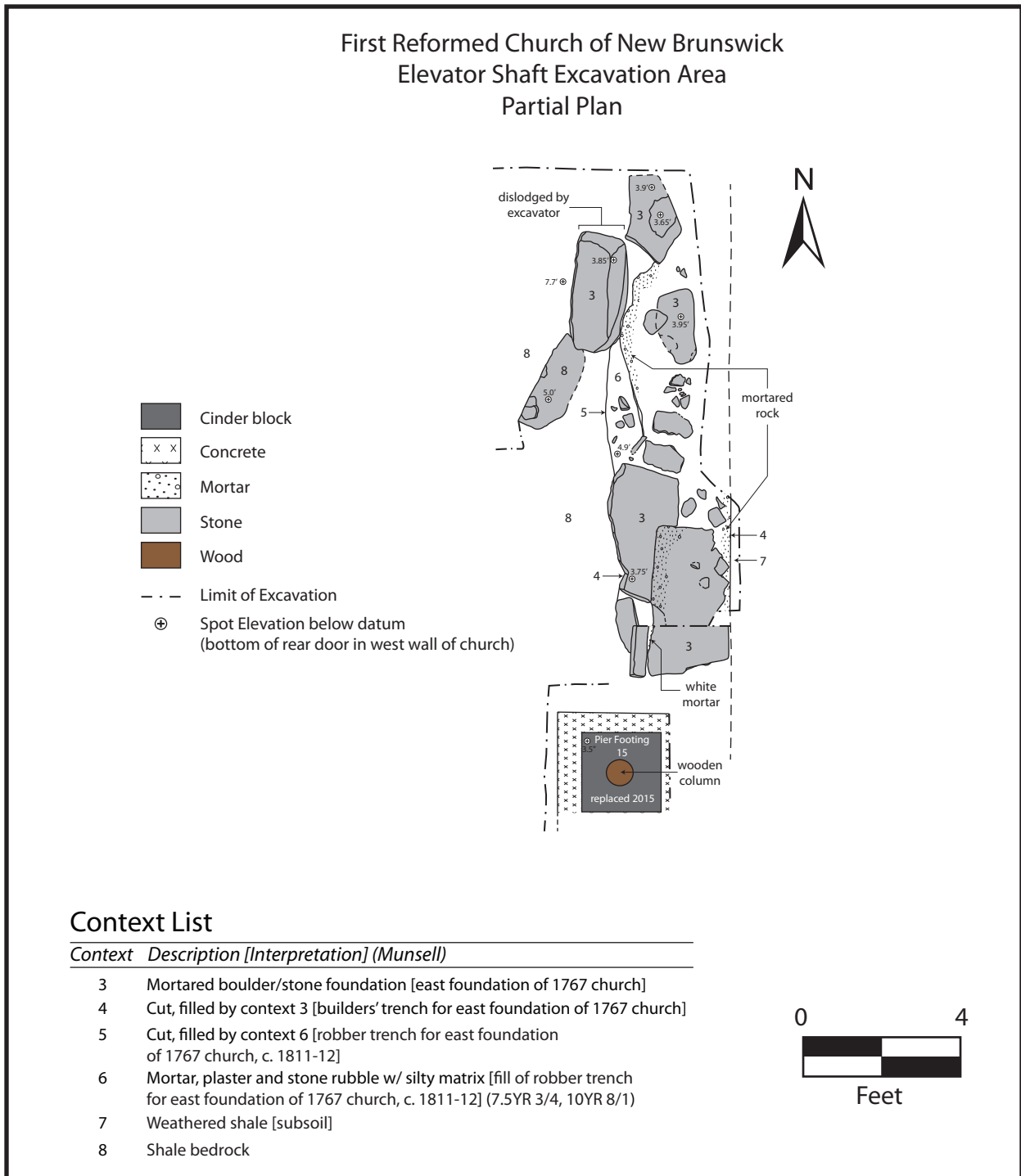


Figure 3.14. Church Interior, Elevator Shaft Excavation Area, Partial Plan.



Photograph 3.31. View looking southwest showing the progress of interior construction following completion of most of the excavation monitoring (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:264].

Excavation Area was covered in construction fabric before new concrete was eventually poured atop it to facilitate the proposed new foundations at that location. By the time these excavations had concluded within the auditorium, many new foundations had already been built (Photograph 3.31).

4. Utility Excavation Area

The **Utility Excavation Area** consisted of an east-west trench excavated across the northern end of the interior of the church foyer. This trench, approximately 12 feet long, 4.5 feet wide and 8 feet deep, extended west from the northeast corner of the foyer along the interior face of the foundation for the church's north wall to the foyer's northwest corner. After drilling holes through the foundations at either end of this trench, utilities were installed from Trench 8, outside the church, across the foyer connecting to Trench 6 within the auditorium. Excavation commenced by penetrating a 0.5-foot-thick stone floor [1] set on a 0.4-foot-thick concrete sub-base [2] (Photograph 3.32). Beneath the concrete was a deep deposit of compact mottled clayey silt densely filled with shale fragments and cobbles [3]. This deposit, interpreted as historic upcast soils related to the construction of the present church, overlaid a clayey silt with weathered shale [4], a B-horizon subsoil, which extended to the full depth of the trench which reached approximately 8 feet at its western end. Exposure of the masonry foundations in this trench revealed that the foundation for the north wall of the church extended approximately two feet deeper than the foundation for the interior wall separating the foyer from the auditorium. The latter foundation appeared to abut the former, suggesting that the foundations for the outer shell of the church were constructed first and then the foundation for the interior wall separating the auditorium from the foyer was added afterwards.



Photograph 3.32. View looking west showing the western end of the Utility Excavation Area in the church foyer. At right is the foundation for the north wall of the church with a stone offset near the base. In the center is the east face of the foundation for the interior wall separating the foyer from the auditorium. Scales in feet and tenths of feet (Photographer: Joshua Butchko, August 2015) [HRI Neg. #15004/D2:040].

Chapter 4

ARCHAEOLOGICAL MONITORING OF EXCAVATIONS IN THE CHURCHYARD

A combination of observational and documentary archaeological monitoring was conducted in the western section of the churchyard, in the area of the recent addition immediately adjacent to the west wall of the church. Additional observational monitoring was also conducted in the northeastern section of the churchyard where utilities were installed along the outside of the north wall of the church close to the building's northeast corner and extending east towards Neilson Street.

Monitoring along the west wall of the church commenced on March 25 and was completed on April 1, 2015. This involved overseeing the excavation of five excavation pits (referenced here as Excavation Unit 3 Extension and Excavation Units 4, 5, 7 and 8), all strategically placed at the locations of five of six proposed footings for the new addition. The sixth footing location, designated Excavation Unit 6, was ultimately abandoned by contractors and not monitored or excavated. Elevations for all excavation units outside the west wall of the church were referenced to the base of the doorway into the church, which was marked on the engineers' plans as 1.25 feet above zero prime in relation to the east church interior. Limited shovel testing in the area of a proposed utility trench was performed on August 24, 2015. Observational monitoring of the same utility trench (Trench 8) occurred on September 15 and 16, 2015. Excavations for six footings for a new ADA ramp (Sonotube Holes 1-6) were monitored on October 13, 2015. The locations of all archaeological monitoring and testing activities in the churchyard are shown on a site plan of the church property (Figure 4.1).

A. BURIAL MARKER RELOCATION AND EXCAVATION UNITS 3-8

The archaeological monitor observed the relocation of two grave markers immediately west of the western edge of Excavation Unit 4. These two stones accounted for five members of the Clark-De Foreest family. It is likely that the two individuals on the marker at the northwest corner of the unit (Henry James Clark 1811-1855 and his wife Catharine De Foreest 1801-1876) were mother and father to the three children marked on the second stone immediately to the south (James Henry Clark deceased 1836, Sarah De Foreest born and deceased in 1842 and another Henry born and deceased in 1843). The plot where the burial disturbance was identified in nearby Excavation Unit 4 (see below) did not have a marker. The shallow excavation around these two extant markers allowed for them to be repositioned two feet further to the west and thus clear of the west wall of the new addition (Photograph 4.1). The original bases of both grave markers were exposed and ultimately left in place after the markers themselves were moved. During observation of this task, the archeological monitor observed several indications of fracture and subsequent repair on these markers, which suggests they had likely been moved previously.

Excavation Unit 3 Extension, five feet square in plan, was dug as an extension of an excavation unit previously excavated by Hunter Research in 2013. In the earlier excavation, four burial shafts had been identified cutting into the Brunswick Shale bedrock (Hunter Research, Inc. 2013b). This new unit, excavated by the contractor and observed by the archaeological monitor, was placed at the proposed location of Pier Footing F40, P2 North, per the engineers'



Photograph 4.1. View looking north showing the shallow excavations performed for the relocation of two burial markers west of the church. The grave markers are in their new locations in this view and originally stood two feet to the right. Note the in-situ marble fragments in the foreground used to stabilize the nearer of the two grave markers in its original position. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:017].

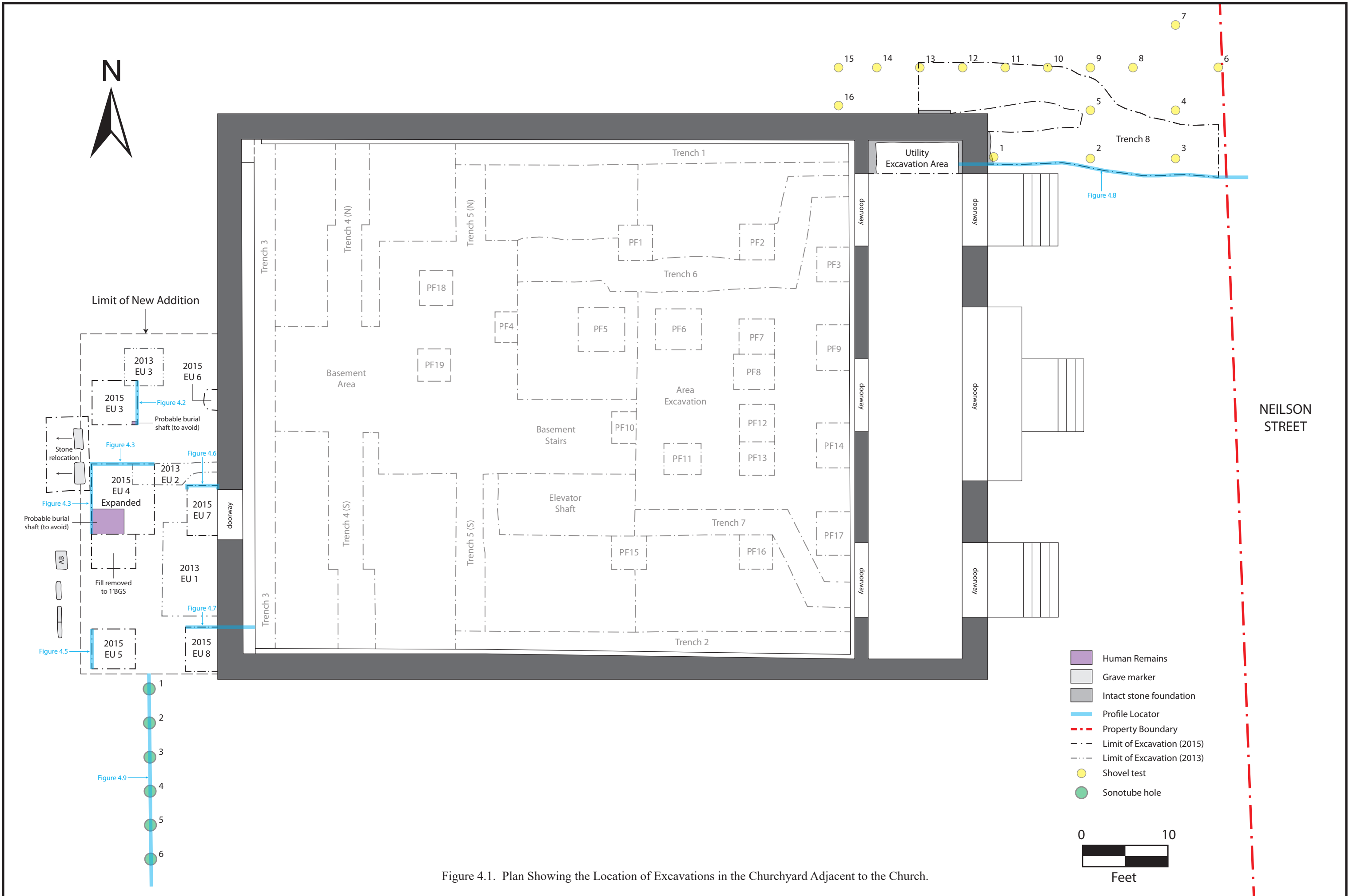


Figure 4.1. Plan Showing the Location of Excavations in the Churchyard Adjacent to the Church.

plans. Some overlap was planned and expected with the earlier unit, specifically where one of the four burial shafts had been identified in the southwest corner. The current location was chosen in order to identify workable space in which to accommodate the new pier footing without disturbing the previously identified burial or any others that might be identified at the new pier location.

Excavation commenced at the then existing ground surface where a modern brick patio and walkway, documented in the earlier investigations, had just recently been removed by the contractor (Figure 4.2; Photograph 4.2). The uppermost soil layer consisted of a 0.4-foot-thick layer of clean compact gritty sand [1] which appeared to be the bedding material for the recently removed brick surface. A clay layer with fragments of weathered shale [3] was exposed at surface grade across much of the unit, but had been cut [2] for the installation of the brick patio at the western end. This deposit, which extended to 1.7 feet below the ground surface, was interpreted as an upcast C horizon. It overlaid a previously unidentified burial shaft [5] filled with clay [4]. The burial shaft cut into a layer of clay with shale fragments [6], interpreted as an undisturbed C-horizon subsoil. A fragment of probable human bone was identified at a depth of around a foot within the fill of the burial shaft [4] in the southeast corner of the excavation unit. These remains appeared displaced; they were not removed from the excavation when the monitor was assured by the contractor that he would be able to work around this location without further disturbance. Another probable human bone fragment was recovered from the spoil pile of this excavation, documented in the field, and then returned to the church for safe keeping. Excavation into the subsoil [6] terminated at 2.8 feet below grade.

Excavation Unit 4, 7.5 by 8 feet in plan, was placed at the proposed location of Pier Footing F40, P2 Center, per the engineers' plans. This unit was ini-

tially marked out incorrectly in the field and excavation commenced in an area further south than was truly intended. Approximately one foot of modern fill material was removed by the contractor before the archaeological monitor identified a burial footstone *in situ*, approximately 6.5 feet due east of a nearby upstanding gravestone. Excavation was halted by the monitor and the contractor was alerted to the situation. This area was then backfilled immediately and the correct mark-out for this pier footing was laid out.

Contractor excavations were resumed at the adjusted location further to the north (Photograph 4.3). During the removal of the uppermost 1.5 feet of soil, which was expected to be 20th-century fill, the archaeological monitor observed evidence of displaced human remains in the southwest corner of the unit. From this point onward, all further excavation was conducted by the archaeological monitor and additional Hunter Research staff to ensure appropriately controlled investigation and recovery of any human remains. The New Jersey Historic Preservation Office (NJHPO) was notified of the find and this agency requested that Hunter Research should continue excavation of the displaced human remains until it was determined whether or not the human remains were located *in situ*. Ultimately, the goal in these excavations was to identify a workable space, free of human remains, which could accommodate a new pier footing. In order to achieve this goal, archaeologists eventually re-excavated the southwest corner of the former Excavation Unit 2, previously investigated in 2013 (Hunter Research, Inc. 2013a).

Context 1, found at grade in the eastern half of the unit, was a mottled silty loam interpreted as a grading deposit laid down by the current contractor to level the ground surface after the bricks from the patio and pathway had been removed (Figure 4.3). This material overlaid a modern topsoil [2] and remains of the sand bedding for the brick pathway [5, 6] and patio [7, 8]. These modern features were removed to expose

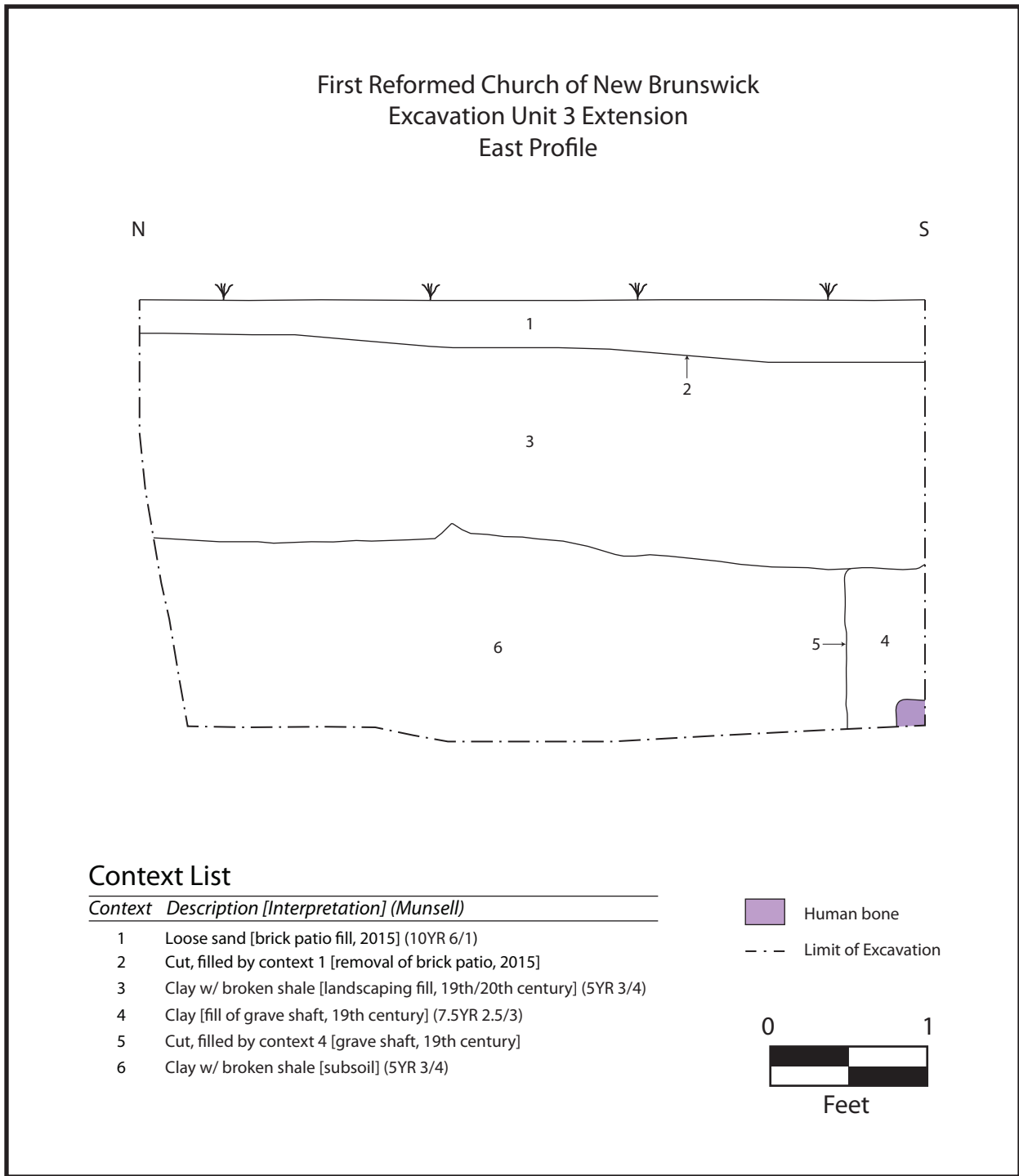


Figure 4.2. Churchyard, Excavation Unit 3 Extension, East Profile



Photograph 4.2. View looking west showing Excavation Unit 3 Extension. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:150].



Photograph 4.3. View looking northwest showing Excavation Unit 4. The incorrectly located, partially excavated portion of the unit is in the foreground with its northern edge marked out with orange spray paint. The correctly located Excavation Unit 4, whose excavation is about to commence, extends north from the orange spray-painted line toward the shovel. The horizontal scale pole in the foreground lies on the line of the recently removed north-south brick pathway that ran west of the church. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:027].

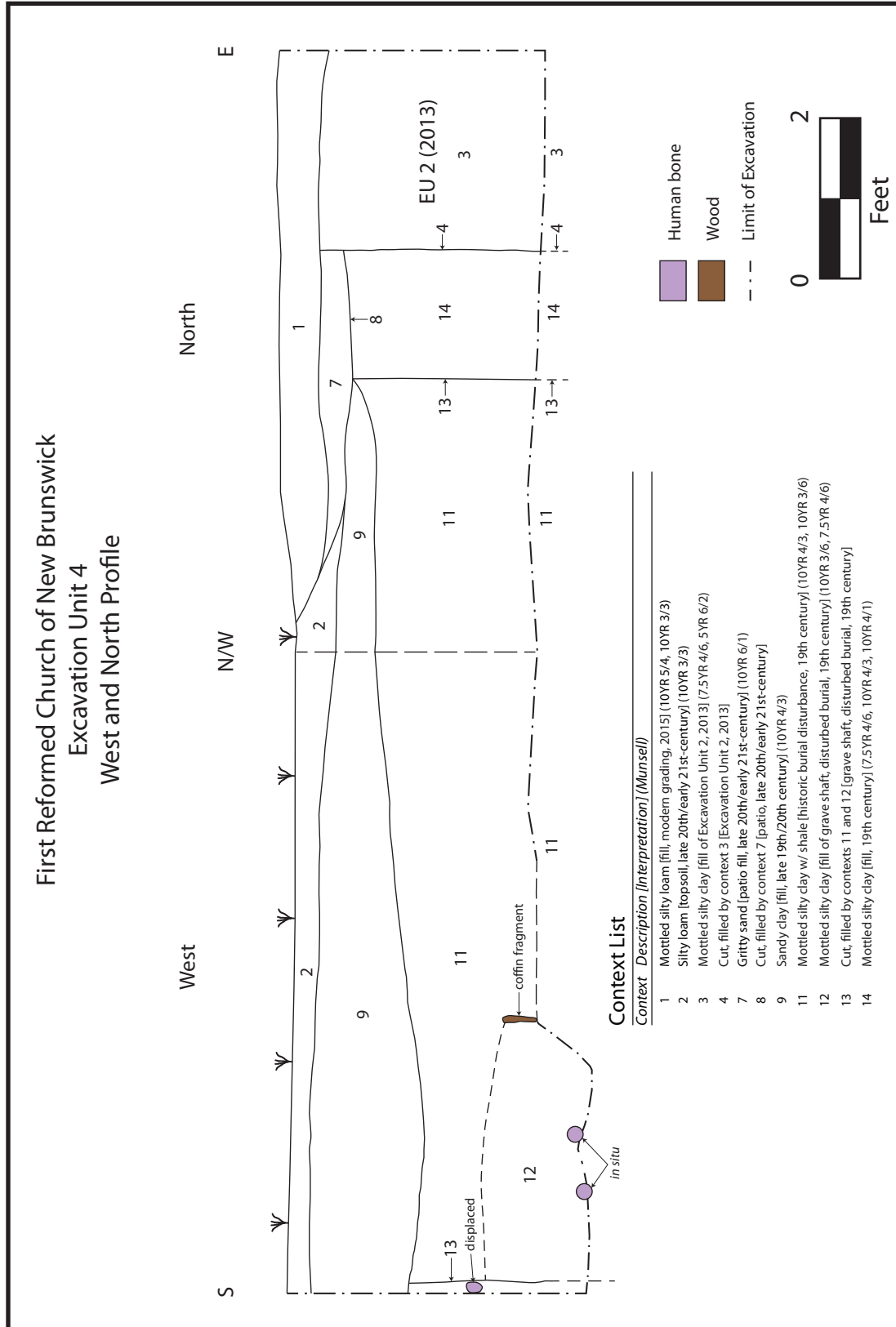


Figure 4.3. Churchyard, Excavation Unit 4, North and West Profiles

deposits of sandy clay [9] and mottled silty clay with building rubble [10] which were considered to be the result of earlier grading episodes, but post-dating the construction of the church foundation in 1811-12.

Below the patio and grading deposits, a two-foot-thick mottled silty clay fill layer [14], considered to be undifferentiated mixed cemetery soils, was observed extending to almost the full depth of excavation and overlying shale bedrock. This layer was cut by a feature [13] extending across most of the western half of the excavation unit. The uppermost fill of this feature was a two-foot-thick deposit of mottled silty clay with dense shale fragments [11], which contained several fragmentary and displaced human remains. The initial discovery of displaced human remains in Context 11, which occurred in the southernmost, incorrectly located portion of the excavation unit, was made within this layer at a depth of approximately 1.5 feet below the ground surface. The lower fill of the feature [13] was characterized as a mottled silty clay [12], which also yielded several fragmentary, displaced human remains. Removal of this latter fill layer was halted at 3.8 feet below grade when an adult tibia was exposed extending out of the west wall of the unit and appearing to lie *in situ* (Figure 4.4; Photograph 4.4). Context 12 was contained within the feature cut [13] to the south and was also loosely defined by a fragment of coffin wood, apparently displaced and extending out of the west wall of the unit. The feature comprising Contexts 11, 12 and 13 was interpreted as a historical disturbance of an intact burial or burials, possibly resulting in the relocation and reburial of one or more sets of human remains. At least one intact human burial remains in place beneath this disturbance. Natural shale bedrock [15] was identified in the southeast corner of the excavation unit at 3.1 feet below the surface (or 3.55 feet below zero prime). Excavation Unit 4 was terminated between approximately 3.1 and 3.8 feet below modern grade.

As required by the archaeological monitoring protocol, specific to matters of human burials, and based on direction received from the NJHPO, excavation of the identified burial disturbance in Excavation Unit 4 was conducted by trained archaeologists and halted immediately as soon as *in-situ* human remains were recognized. Approximately 37 fragmentary displaced human remains (at 15 different locations and elevations) were identified within the burial disturbance layer [11, 12] in Excavation Unit 4. Examination of these remains indicated the presence of potentially two adults (based on the type and number of limb fragments) and perhaps one child (based on the recovery of one tooth). One of the two adults appeared to be partially *in situ* at 3.8 feet below grade in the southwest corner of the unit. Two probable explanations are offered concerning the burial disturbance. One is that the whole area was disturbed by construction-related excavation and grading when the present church was erected in 1811-12. Alternatively, while the burial plot where this disturbance occurred did not have a grave marker, it may have been part of a larger space set aside for interments of members of the Clark-De Foreest family. Since at least five family members are known to have been buried in this immediate vicinity, it is likely that this family plot saw significant soil turnover as new interments were introduced. Furthermore, it is possible that the 19th-century family members for whom there are markers may have been buried on top of or in amongst the remains of ancestral members of the family (or of the families of previous or nearby plot owners) who died in the later 18th century.

All human remains physically removed from the ground were processed on site and left in the care of the church for future reburial. A more detailed summary of the human remains found during this investigation, in particular those from Excavation Unit 4, is provided in Appendix E.

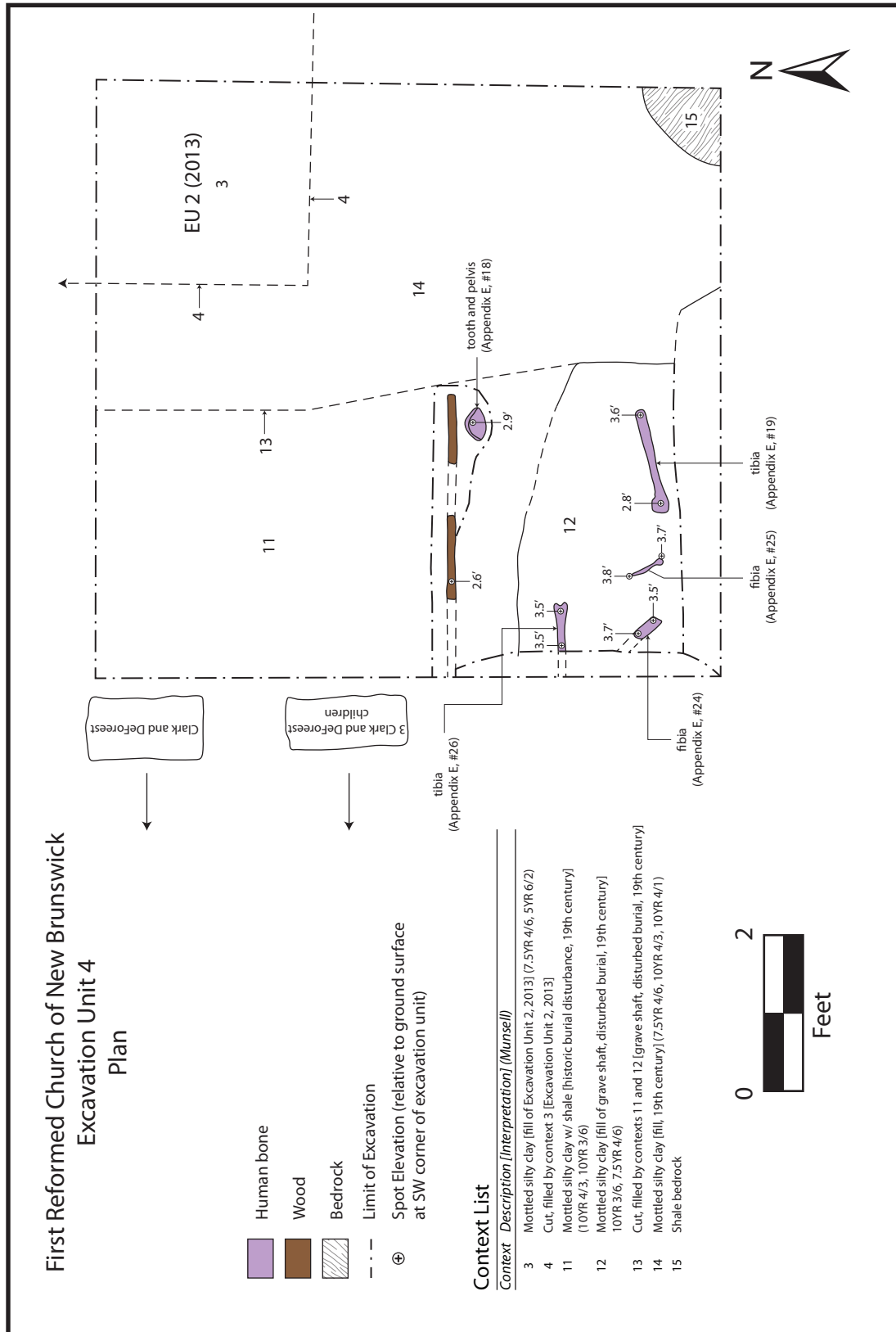


Figure 4.4. Churchyard, Excavation Unit 4, Plan



Photograph 4.4. View looking west showing historically disturbed burial feature in Excavation Unit 4. In the base of the excavation at left is an adult tibia freshly exposed. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:098].

Excavation Unit 5, five feet square in plan, was placed at the proposed location of Pier Footing F40, P2 South, per the engineers' plans. Excavation was completed by the contractor and observed by the archaeological monitor (Figure 4.5; Photograph 4.5).

This unit opened in the midst of a number of truncated modern surface features. A 0.3-foot-thick layer of mottled sandy loam [1], a modern topsoil, was cut by what remained of a modern brick pathway [2, 3]. The topsoil overlaid a deposit of mottled silty loam with shale fragments [3], which had also been partially cut into by the modern brick pathway. This silty loam layer was approximately 2.8 feet thick and appeared to be an undifferentiated mix of cemetery soils. No burial shafts were exposed within the unit. One probable human bone fragment was recovered from this excavation, documented in the field, and turned over to the church for reburial. Excavation Unit 5 stopped at approximately 3.1 feet below modern grade.

Excavation Unit 6 was initially planned as a 2.5-by-5-foot rectangle to be placed at the proposed location of Pier Footing F30, P1 North immediately adjacent to the west wall of the church. This plan was abandoned as the contractor instead planned to employ a "post-up" at that location, tying the new addition into an existing opening in the foundation of the church's west wall. Minimal to no excavation was consequently expected at this location and it was removed from the monitoring plan.

Excavation Unit 7, 3.5 by 6 feet in plan, was placed at the proposed location of Pier Footing F30, P1 Center, immediately adjacent to the west wall of the church at the rear doorway within the footprint of the porch foundation. It was located between Excavation Units 1 and 2, investigated by Hunter Research, Inc. in 2013, with the new excavation unit adjoining the northern end of Excavation Unit 1 (Hunter Research, Inc.

2013a). Excavation was completed by the contractor and observed by the archaeological monitor (Figure 4.6; Photograph 4.6).

The backfill [1] and corresponding western edge [2] of the Excavation Unit 1 were identified in the south wall of the Excavation Unit 7. A mottled silty loam [3], the modern topsoil, was identified in the southwest corner of Excavation Unit 7. The northern half of the unit, however, fell within the footprint of the back porch of the church which was defined by a brick foundation [4]. Within the foundation [4], an irregular sequence of mottled silty clay and clay loam deposits [5-7] were identified. These extended to 1.2 feet below grade and were interpreted as 20th-century fill layers, contemporary with or postdating the construction of the brick porch. Outside the foundation, the modern topsoil overlaid a mottled clay loam [8] which was approximately 0.55 thick. This, in turn, overlaid a 0.6-foot-thick deposit of sandy clay loam [9]. Both Contexts 8 and 9 were interpreted as fill relating to late 19th-century grading around the foundation of the church's west wall and had been previously identified in 2013 as Contexts 4 and 5, respectively, in Excavation Unit 1. Excavation Unit 7 was terminated within a deposit identified as a silty clay loam with shale fragments [10]. This layer comprised upcast fill corresponding to Context 7 in the earlier Excavation Unit 1. Excavation Unit 7 was concluded at approximately 2.8 feet below modern grade.

Excavation Unit 8, 3.5 by 5 feet in plan, was placed at the proposed location of Pier Footing F30, P1 South, immediately adjacent to the west wall of the church. The unit's northern edge was located 1.5 feet south of the south side of Excavation 1, excavated in 2013 (Hunter Research, Inc. 2013a). The southern edge of Excavation Unit 8 was approximately 1.3 feet north of the southwest corner of the church. Excavation was completed by the contractor and observed by the archaeological monitor (Figure 4.7; Photograph 4.7).

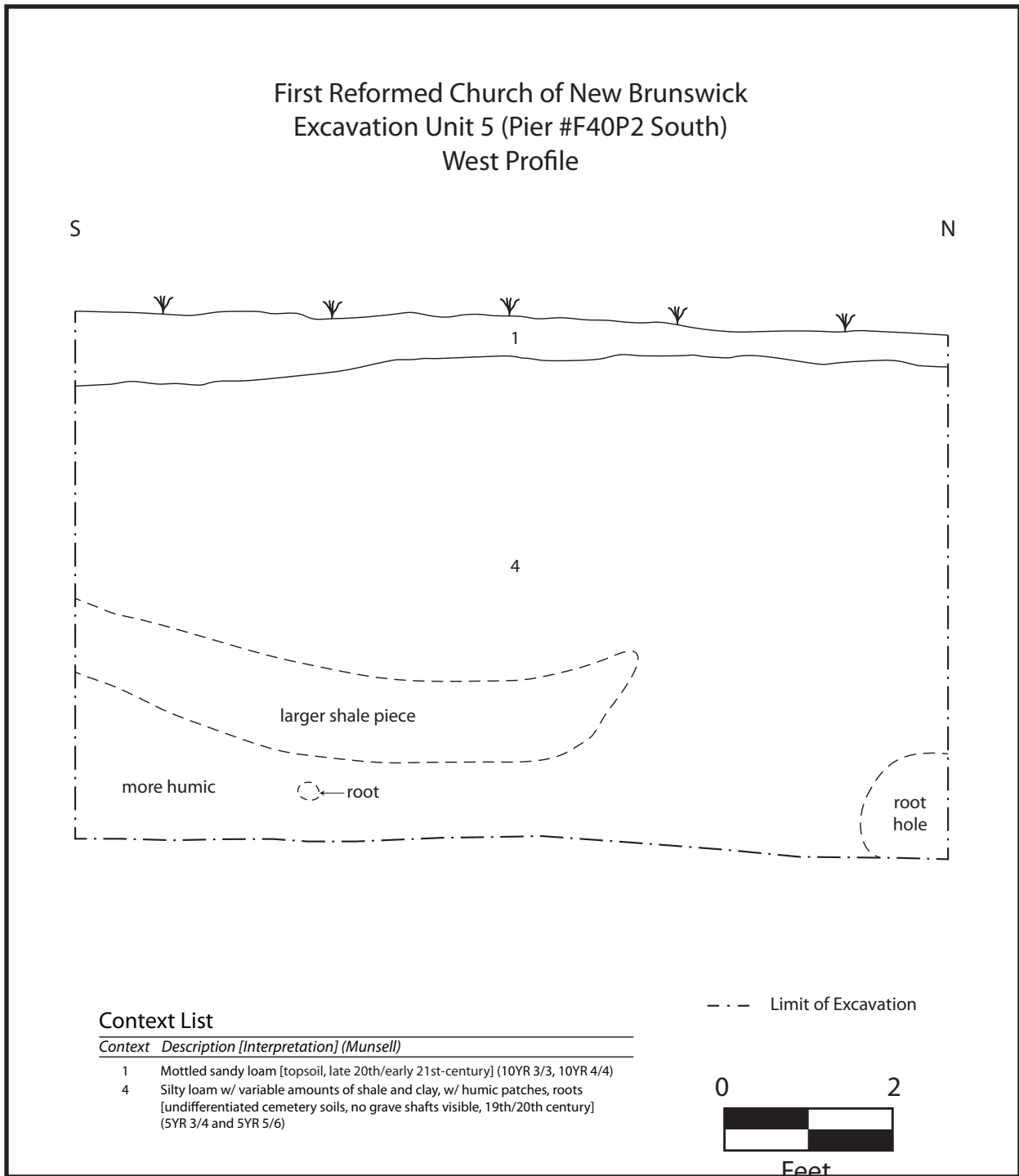


Figure 4.5. Churchyard, Excavation Unit 5, West Profile



Photograph 4.5. View looking west showing Excavation Unit 5. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:050].

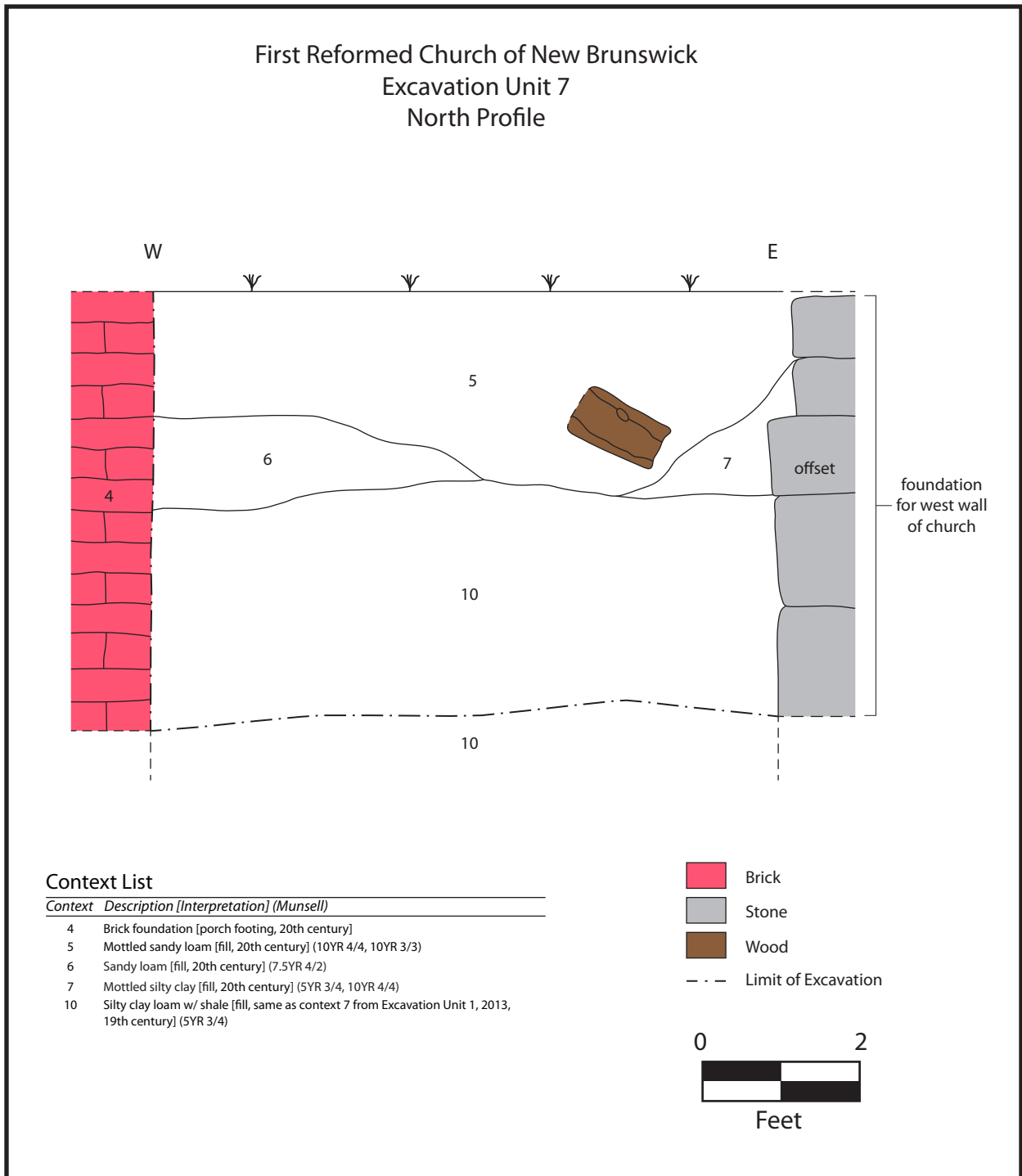


Figure 4.6. Churchyard, Excavation Unit 7, North Profile



Photograph 4.6. View looking west from the rear doorway in the church's west wall showing Excavation Unit 7. The mortared brick porch footing is visible in the far wall of the excavation unit. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:177].

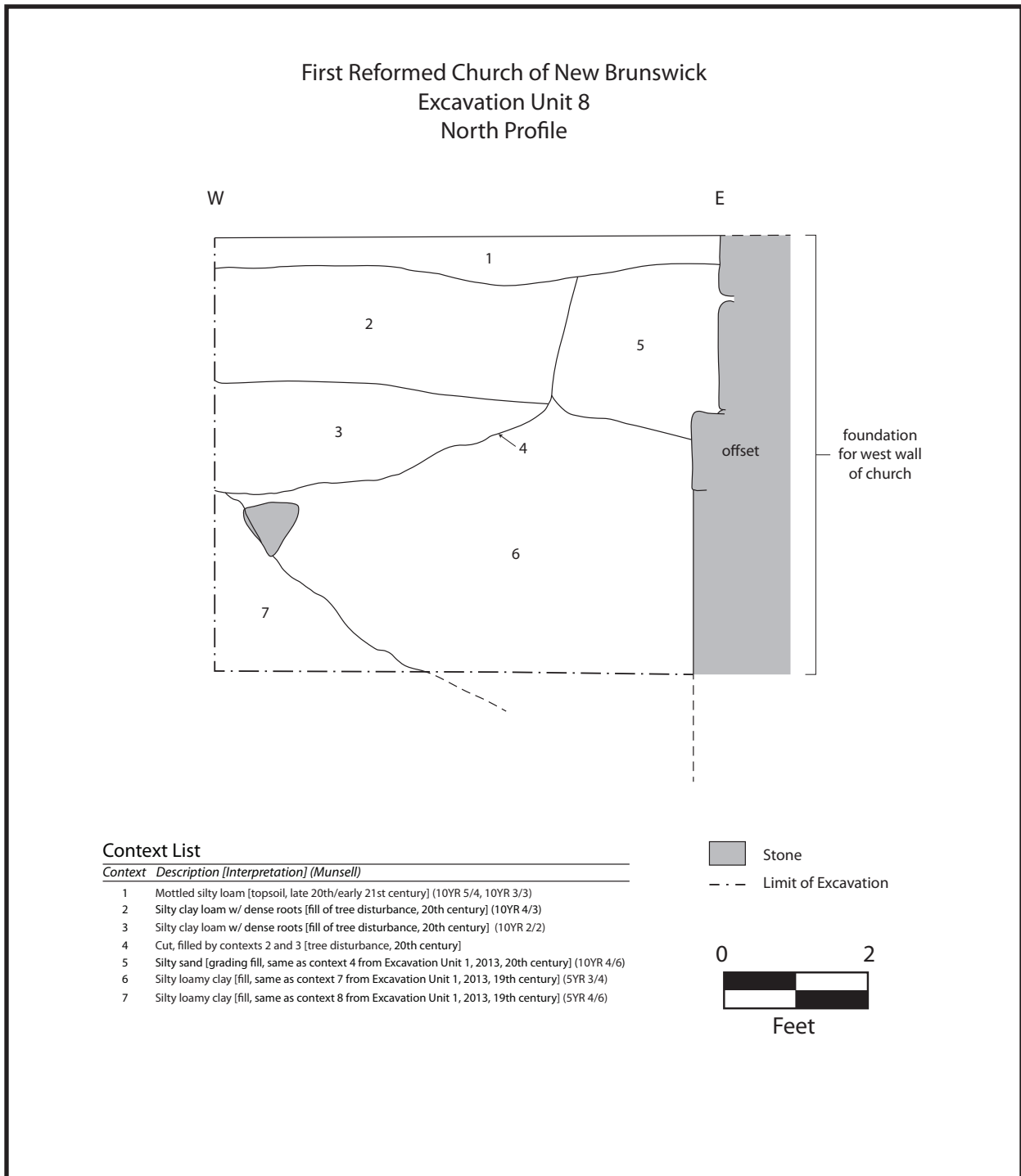


Figure 4.7. Churchyard, Excavation Unit 8, North Profile



Photograph 4.7. View looking south showing Excavation Unit 8. Scales in feet and tenths of feet (Photographer: Joshua Butchko, March 2015) [HRI Neg. #15001/D8:128].

A 0.2-foot-thick topsoil layer of mottled silty loam [1] covered the majority of the unit at modern grade. Much of the upper 1.5 feet of soils within the unit, particularly in the west half, were disturbed by a modern tree planting and its root system which spread throughout the southwest corner of the unit. The tree planting hole [4] was filled by silty clay loam deposits [2, 3] that contained a dense web of roots. The tree planting hole cut into a 1.1-foot-thick silty sand layer [5] associated with the late 19th-century grading deposit that raised the ground surface above the level of the church's west wall foundation offset (the same deposit was identified as Context 4 in Excavation Unit 1 in 2013). In the eastern half of the unit, Context 5 overlaid a silty loamy clay [6] interpreted as fill, again relating to the late 19th-century grading around the foundation of the church's west wall (the same deposit was identified as Context 7 in Excavation Unit 1 in 2013). Excavation of the unit was terminated within a silty loamy clay [7], which was encountered at 1.4 feet below grade. Context 7 was interpreted as an upcast fill layer from construction of the church in 1811-12 and was previously identified as Context 8 in Excavation Unit 1 in 2013. Excavation Unit 8 was concluded at approximately three feet below modern grade, the necessary depth of excavation for the new construction.

B. PHASE I SHOVEL TESTING AND MONITORING OF TRENCH 8

Concern about the archaeological impact of excavations for a utility trench (Trench 8) extending to the east off the northeast corner of the church towards Neilson Street were addressed through a series of archaeological test pits and by monitoring during construction. Sixteen 18-inch-diameter shovel tests were excavated on a 5-foot grid within the area of the contractor's field mark-out for the proposed excavations for the utility installation (Figure 4.1).

Shovel Tests 1-16 encountered a mostly consistent soil profile commencing with an uppermost layer of silty loam or mottled silty loam ranging in depth between 0.4 and one foot below the present ground surface. This layer is interpreted as a modern topsoil and produced small quantities of domestic artifacts ranging from the 18th century to the present day. In Shovel Test 1, located adjacent to the east wall of the church, a probable buried A horizon [2] overlaid a 0.4-foot-thick band of white lime or mortar [3] (Photograph 4.8). This mortar layer was exposed at 1.6 feet below the surface and directly overlaid silty clay with shale chunks [4] which was interpreted as subsoil. The mortar is likely a construction deposit associated with the building of the church in 1811-12. Shovel Tests 2-5 opened on an extant stone surface underlain by a concrete subbase. This modern walkway overlaid a one-foot-thick deposit of rock and concrete rubble with testing terminating in the underlying fill between two and three feet below grade. In Shovel Test 6, remnants of a stone wall [2] were exposed at 0.6 feet below the surface and abutted shale rubble [3] interpreted as the fill of its related builders' trench. This masonry is believed to have been connected to the currently extant church property boundary wall. In Shovel Test 7, modern topsoil overlaid a dense stone rubble impasse exposed at 1.2 feet below surface. The soils around the rest of the testing area typically consisted of a silty loam with roots [2] extending to depths of between six inches and one foot. This probable A horizon yielded a few historic artifacts, generally dating from the 19th or 20th centuries. Underlying soils across much of the area consisted of a silty clay or clayey silt with weathered shale fragments [3], interpreted as the undisturbed and culturally sterile B or C horizon subsoil which was typically encountered between one and two feet below the ground surface. Auger testing into these deposits were generally terminated due to refusal in the dense shale at approximately 2.2 to 2.5 feet below the ground surface.



Photograph 4.8. View looking west showing Shovel Test 1 placed alongside the east wall of the church exterior. The mortar deposit at the bottom of the shovel test is a construction deposit associated with the building of the church in 1811-12. Scales in feet and tenths of feet (Photographer: Joshua Butchko, August 2015) [HRI Neg. #15004/D1:018].



Photograph 4.9. View looking east showing Trench 8 fully excavated and awaiting installation of utilities. Scales in feet (Photographer: Joshua Butchko, October 2015) [HRI Neg. #15004/D4:059].

First Reformed Church of New Brunswick
Trench 8
South Profile

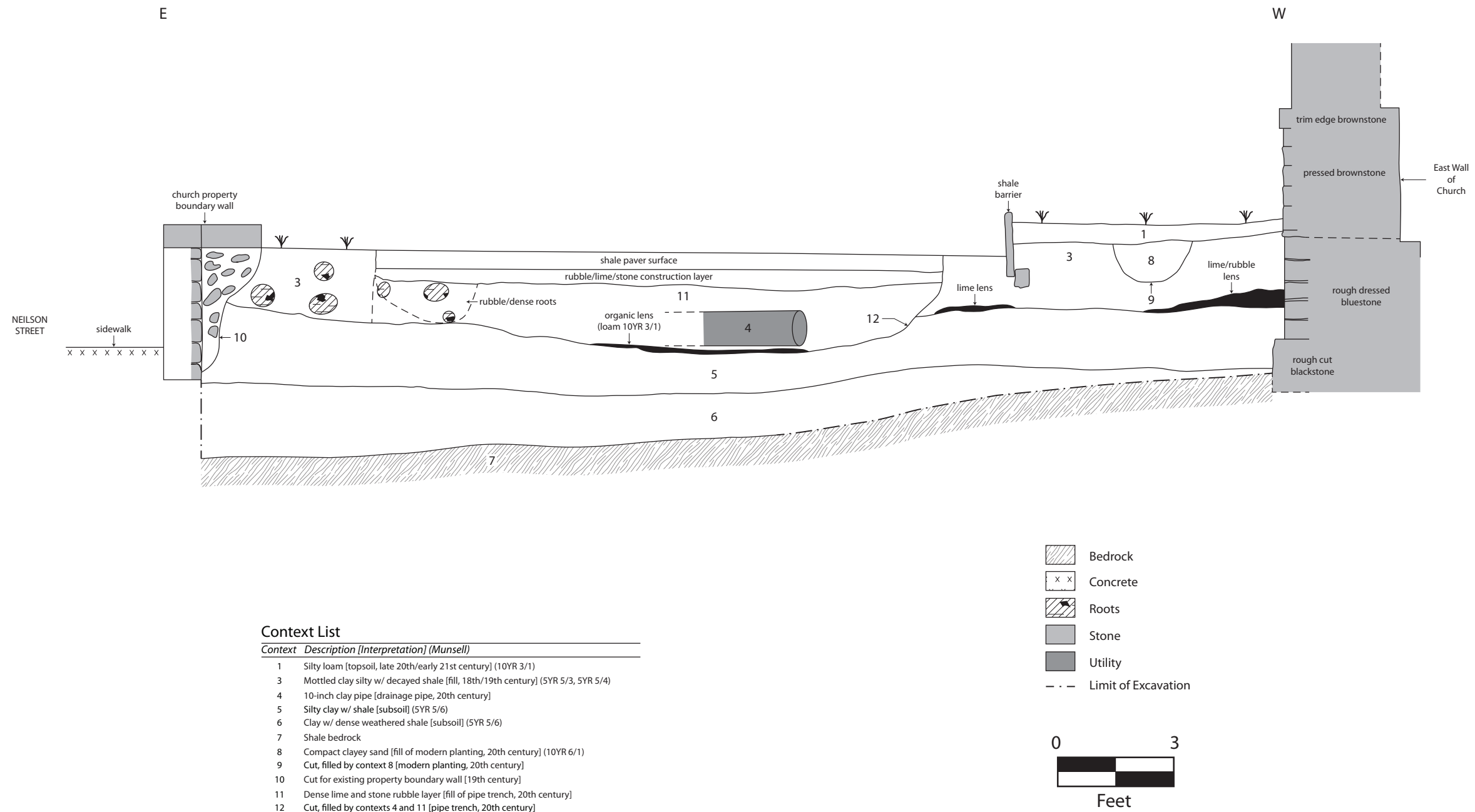


Figure 4.8. Churchyard, Trench 8, South Profile

Trench 8 was excavated across the narrow east lawn of the churchyard to facilitate installation of a new utility line extending from the northeastern edge of the church and connecting to existing utilities running under Neilson Street (Figure 4.8; Photograph 4.9). The trench, which commenced 12 feet west of the church's northeast corner, was approximately 40 feet long. Alongside the church's north wall, the trench was approximately 5.5 feet wide. It then widened to approximately ten feet moving east of the church (where a large tree stump was also removed) and terminated along the eastern edge of the church property close to the perimeter wall.

Along the south side of this trench, modern topsoil [1] was found only close to the church's northeast corner. Roughly three feet from the front (east wall) of the church, the topsoil overlaid a shallow pit feature [8, 9] interpreted as a modern planting. This cut into a mottled clayey silt with weathered shale fragments [3], a layer that was interpreted as mixed historic and modern fill. This layer was approximately two feet thick and overlaid the lens of lime and rubble, previously identified in Shovel Test 1, a deposit which is considered to be associated with the construction of the church in 1811-12.

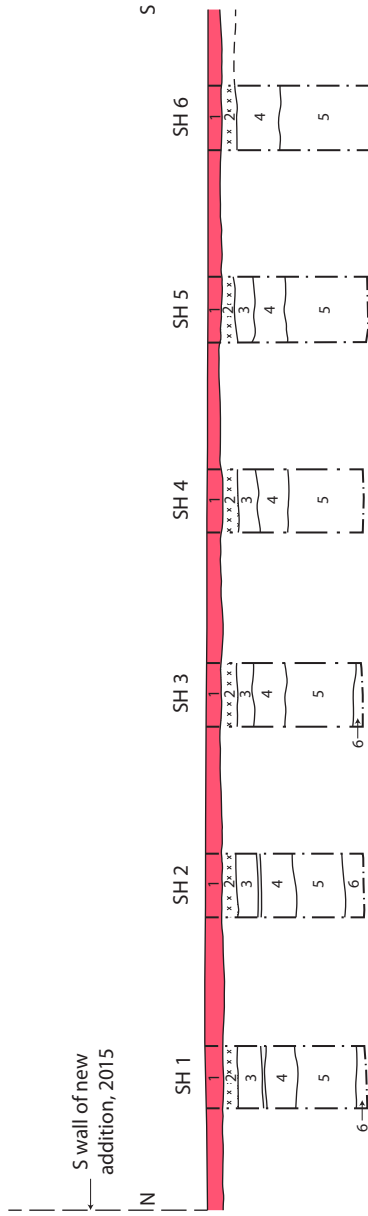
Other modern surface features identified further east in Trench 8 included a shale landscape boundary wall and a walkway of stone pavers overlying a rubble base layer. The base layer for the pavers directly overlaid the fill [11] of a pre-existing utility trench [12] containing a 10-inch-diameter clay drain pipe. Context 10 was identified as the cut for builders' trench for the foundation of the perimeter wall along the east edge of the property. The builders' trench was filled with stone rubble. Contexts 3, 10 and 12, as well as the mortar deposit at the western end of Trench 8, all overlaid (or cut) a two-foot-thick layer of silty clay with shale [5] which was interpreted as the undisturbed B-horizon subsoil. This layer, in turn, overlaid an approximately two-foot-thick deposit of clay with

dense shale fragments [6], interpreted as a C-horizon subsoil directly overlying shale bedrock [7]. Bedrock was generally encountered between four and six feet below the ground surface, sloping down gradually from north to south across the bottom of the trench.

C. MONITORING OF ADA RAMP FOOTING EXCAVATIONS (SONOTUBE PITS 1-6)

On October 15, 2015, the archaeological monitor observed the contractor's excavations for laying the footings for a proposed American Disabilities Act (ADA) ramp that would extend north-south and provide access to the rear entrance of the church. These excavations, circular pits for sonotubes (referenced here as Sonotube Holes 1-6), were generally spaced four feet apart, 1.5 feet in diameter and terminated 3.4 feet below grade (Figure 4.9; Photograph 4.10). The profiles observed in these excavation pits were consistent throughout beginning with the modern brick walkway and underlying concrete base [1, 2], together 0.6 feet in thickness. These features overlaid a 0.6-foot-thick layer of mottled gravel [3], interpreted as historic fill, which, in the case of Sonotube Holes 1 and 2, yielded a limited quantity of historic artifacts. This deposit overlaid a 0.7-foot-thick layer of culturally sterile sandy silt [4], interpreted as a probable B-horizon subsoil. This layer typically overlaid a more compact sandy silt with dense weathered shale [5] at a depth of around 1.8 feet below the ground surface. The latter layer was interpreted as a C-horizon subsoil and generally extended to the full depth of excavation at 3.4 feet below the ground surface. No burial shafts or other historic features were observed during the monitoring of the excavations of the sonotube pits.

First Reformed Church of New Brunswick
 Sonotube Holes 1-6 (ADA Ramp)
 East Profile



Context List

Context	Description [Interpretation] (Munsell)
1	Brick walkway [removed, 2015]
2	Concrete base to brick walkway [removed, 2015]
3	Mottled gravel w/ sand [bed for contexts 1 and 2, 20th century] (10YR 3/1, 10YR 4/1)
4	Sandy silt [fill, 19th/20th century] (5YR 3/4)
5	Compact sandy silt w/ dense weathered shale [subsoil] (5YR 5/4)
6	Very compact silt w/ very dense shale [subsoil] (5YR 5/4)



Figure 4.9. Churchyard, Sonotube Pits 1-6, East Profile



Photograph 4.10. View looking north showing Sonotube Pits 1-6 which were excavated for the footings of an ADA-compliant ramp providing access into the rear of the church. Scales in feet (Photographer: Joshua Butchko, October 2015) [HRI Neg. #15004/D4:073].

Chapter 5

CONCLUSIONS

A. THE CHURCH INTERIOR

Archaeological monitoring of the demolition and new construction within the interior of the First Reformed Church of New Brunswick resulted in the recovery of a wealth of structural information pertaining to the construction of the existing church building in 1811-12 and its subsequent alteration in the later 19th and 20th centuries. In addition, traces of the original church erected on the site in 1767, a smaller structure, were also observed within the footprint of the existing church. No evidence for human burials was documented within the footprint of either church, including immediately in front, outside and to the east of the earlier church (a patch of ground that is contained within the limits of the 1811-12 church building).

The existing stone-built church, three-bays wide, five bays deep and two stories high with an imposing six-tiered tower at its eastern end, was originally laid out according to the standard plan of Dutch Reformed churches of the early federal period. The building measures roughly 90 feet east-west by 65 feet north-south and prior to the recent alterations contained a large auditorium with a foyer adjoining its eastern end. The auditorium was graced with a second-floor balcony on its northern, eastern and western sides, supported on simple wood columns and accessed by stairways in the four corners of the building. Seating in the auditorium was arranged in standard fashion flanking a center aisle and two side aisles, one to the north, the other to the south. The sanctuary at the western end of the auditorium contained a pulpit at the head of the center aisle, a large pipe organ set against the western wall and vestibules in its northwest and

southwest corners (concealed behind a screen that extended north-south across the western end of the building on either side of the organ).

In terms of its original layout and floor plan, the First Reformed Church of New Brunswick resembled numerous other Dutch Reformed churches of similar period in New Jersey and southern New York State. Close parallels may be seen, for example, in the Reformed Church of English Neighborhood in Ridgefield (built in 1793), the North Reformed Church of Schraalenburg in Dumont (1800-01), the Wyckoff Reformed Church (1806), the Millstone Dutch Reformed Church (1828), the Church of Ponds in Oakland (1829) and the Saddle River Dutch Reformed Church (early 19th century), all in New Jersey and recorded by the Historic American Buildings Survey. However, these are all smaller buildings in more rural locations. Consistent with its more voluminous urban congregation, the New Brunswick church is on the larger side, exceeded in size in New Jersey only by the Old Bergen Church in Jersey City, erected in 1841 and measuring 65 feet by 104 feet in plan. Also of similar size is the First Reformed Church of Hackensack, erected in 1791-93 and measuring 50 feet by 107 feet in plan (HABS NJ-4, NJ-116, NJ-173, NJ-255, NJ-295, NJ-338, NJ-466, NJ-552).

Beneath the floor of the auditorium and sanctuary, ample evidence of the original construction of the 1811-12 church survived, with the placement of foundations essentially echoing the use of the interior space above (see above, Figure 3.1). Mortared stone foundations for the ten columns supporting the second-floor balcony and for the aisles and seating areas were easily recognizable following removal of the auditorium floor. Beneath the seating area on the

south side of the center aisle, a series of later brownstone pillars had been inserted, evidently to prop up a sagging floor. The foundations beneath the sanctuary and the western end of the auditorium were more complex in terms of their structure, showing signs of at least one and possibly two episodes of alteration, resulting in a heightening of the dais or platform on which the pulpit and organ were positioned. These foundations consisted of mortared stone at the base (part of the original 1811-12 construction), capped with courses of brick and cinderblock (evidence of much later 19th- and 20th-century modifications).

Modifications to the western end of the church interior may have been driven in large part by a replacement of the organ and/or the installation of a new power source for the pre-existing organ's bellows. A notable discovery beneath the sanctuary floor was a cast-iron water engine manufactured by the Ross Valve Manufacturing Company of Troy, New York sometime after 1879 (most likely, in this instance, around the turn of the 20th century). This piece of equipment was attached to the city water main and used its water pressure to drive a piston that powered the organ bellows. Whether the installation of the water engine was carried out concurrently with the replacement of the organ or was a modification to a pre-existing organ remains uncertain, although a review of church records may be able to clarify this. A new exterior door was inserted into the west wall of the church, possibly at the same time that the height of the dais was raised and the water engine was installed.

Trenches excavated by the contractor along the interior faces of the church's north, south and west walls were especially revealing, showing how the lowest part of the rough-dressed stone foundations included a wider offset on top of which several courses of brick were placed to support the timber framing for the first floor. A series of large joist pockets, spaced 18 feet apart, marked the locations of the principal north-south framing members beneath the auditorium.

Above this, the walls were carried up with more finely dressed stone masonry against which were applied wood lath and a plaster covering. Modifications to the masonry in the northwest corner of the church showed that a stair was inserted to give access to the crawl-space beneath the sanctuary, probably coincident with the installation of the water engine and the heightening of the dais. A window opening with a cast-iron lintel was also punched through the western end of the north wall to provide light for this stairway.

The lower courses of the foundations for the north, south and west walls showed numerous irregularities and a wide variety of stone was employed in their construction. It is hypothesized that much of the masonry used in the foundations and walls for the 1811-12 church was stone re-purposed from the demolition of the earlier church erected in 1767. Interestingly, the bottom courses or offset of the westernmost 45 feet of the foundation for the south wall followed a slightly different alignment to the wall above, angling marginally to the north as one moved eastward along the base of the wall. This anomaly is thought to be relevant in the delineation of the original church, as discussed below.

By far the most important outcome of the monitoring performed inside the church was the documenting of traces of what is believed to be the outline in plan of the original church of 1767 (see above, Figure 3.4). Along an east-west line centered roughly 3.5 feet to four feet south of the interior face of the north wall of the 1811-12 church, and along a second north-south line centered roughly 24.5 to 26 feet west of the interior face of the east wall of the auditorium, were found remnants of a partially robbed foundation, roughly three feet in width, interpreted as evidence of the north and east walls of the earlier church. In some places, the full width of the foundation remained as blocks of *in-situ* stone masonry; in others, a telltale robber trench survived where the masonry had been removed (presumably for re-use elsewhere; most likely in the

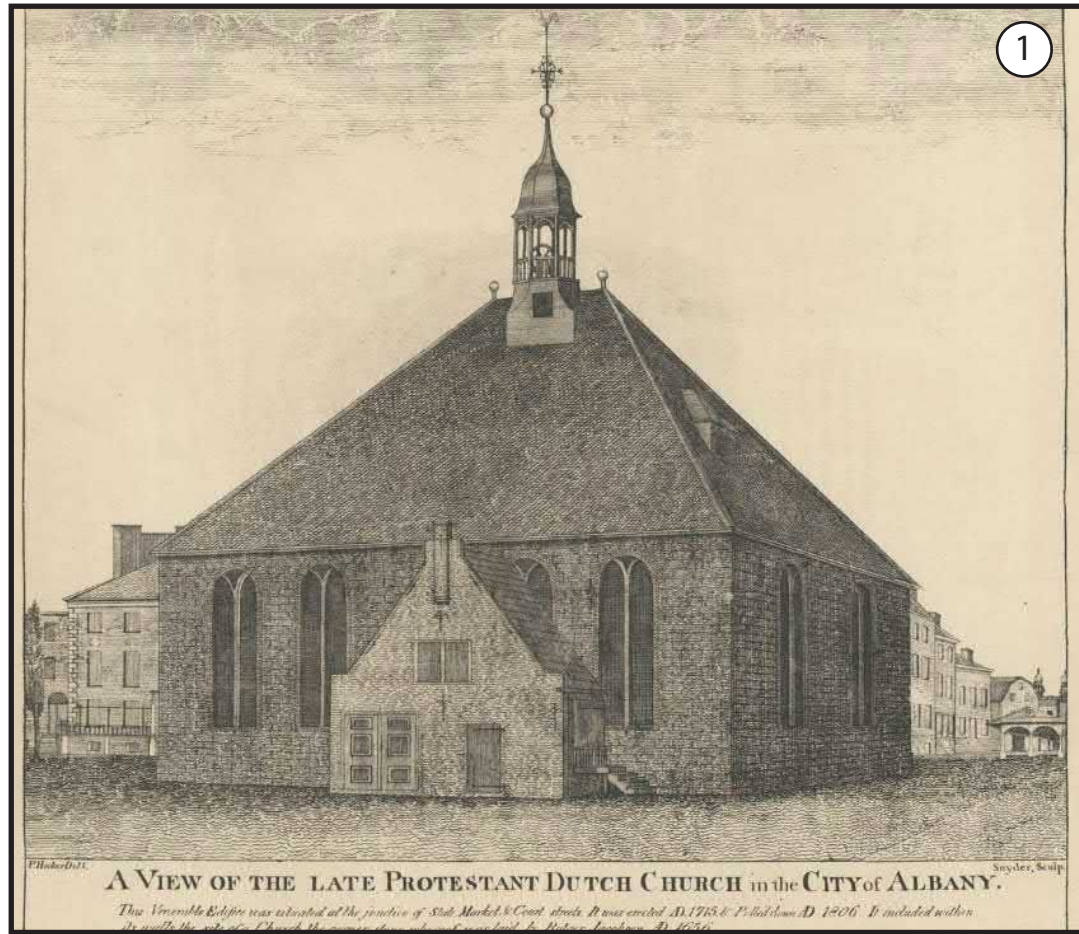


Figure 5.1. The 1767 Church and Some Broad Parallels. 1. First Dutch Reformed Church, Albany, New York. 2. First Dutch Reformed Church, Broadway, New York City. 3. Artist's Rendering of the First Dutch Reformed Church, circa 1790.

laying of foundations for the 1811-12 church). The robber trenches were filled with an amorphous, yet distinctive layer of construction material, typically composed of mortar, plaster and small pieces of stone rubble.

These two vestigial foundations-cum-robber trenches, in conjunction with the foundations for most of the western wall and the westernmost 45 feet of the southern wall of the 1811-12 church (which are thought to have been reused), are judged to delineate the footprint of the earlier church of 1767. This is somewhat speculative since the masonry of the foundations for the west and south walls is poorly laid and uses stones of irregular shape and size. No obvious seams were observed that might indicate the eastward extension of the south wall foundation, or the northward extension of the west wall foundation, of an earlier structure, but the slightly angled, protruding offset of the westernmost 45 feet of the south wall foundation of the existing church is thought to be a “hold-over” from the earlier church, implying that the latter’s orientation did not exactly match that of the 1811-12 church.

On the assumption that the western and southern walls of the 1811-12 church did indeed reuse portions of the foundations of the earlier church, the exterior dimensions of the earlier church of 1767 would have been approximately 50 feet east-west by 60 feet north-south with a foundation width of around three feet. Although not quite square in plan, as is perhaps implied by the view of the church *circa* 1790 (see above, Figure 2.1), it is reasonable to suppose that the general appearance of the building could have resembled this rendering, which shows a building with a hipped roof and central spire not unlike the earlier 18th-century Dutch Reformed churches that were erected in Albany and at the corner of State Street and Broadway in New York City (Figure 5.1). Unfortunately, owing to the limitations of the archaeological evidence and without a clearer attribution for the *circa* 1790s artist’s rendering, it is difficult to go beyond drawing broad

parallels such as these. The archaeological record, in this instance, is now largely exhausted; one hopes that the archival record may yet throw new light on the character of this first Dutch Reformed church on the Neilson Street site.

B. THE CHURCHYARD

A combination of archaeological monitoring, testing and limited excavation were conducted in 2015 immediately west of the church and immediately outside the northeast corner of the building extending eastward to Neilson Street. This work focused principally on establishing whether or not human burials were present in locations of likely project impact.

The investigations to the west of the church followed on from a program of archaeological testing carried out in 2013, which had identified areas considered sensitive or insensitive with regard to the potential for human burials. Archaeologists monitored contractor excavations for footings for the new addition adjoining the western end of the church and in one instance, Excavation Unit 4, took over the excavation responsibilities when it became clear that human remains were present in the soils being removed. Ultimately, one apparently intact human burial was encountered, minimally exposed and then reburied, with the new construction being adjusted to avoid further impacting this location. The burial was not marked in any fashion, but most likely is the remains of a member of the Clark-De Foreest family, which owns the burial plot closest to this spot.

No other *in-situ* human remains were documented in the excavations to the west of the church, in the north-south line of six sonotube locations off the southwest corner of the church, or in the various shovel tests and monitoring work completed between the northeast corner of the church and Neilson Street. Excavation Unit 7, outside the doorway in the west wall of the

church, documented the footings for the porch structure that protected this entry. Shovel Test 1, placed against the northeast corner of the building, at the northern end of the east wall, found evidence of a construction deposit, chiefly composed of mortar, relating to the erection of the 1811-12 church.

REFERENCES

Bayley, Don

2019 Brick Collecting. Electronic document, <http://brickcollecting.com/collection.htm>, accessed June 2019.

Benedict, William H.

1925 *New Brunswick in History*. Privately published, New Brunswick, New Jersey.

Clayton, W. Woodford

1883 *History of Union and Middlesex Counties, New Jersey*. Everts & Peck, Philadelphia, Pennsylvania.

Everts & Stewart

1876 *Combination Atlas Map of Middlesex County, New Jersey*. Philadelphia, Pennsylvania: Everts & Stewart.

Foster, Janet W. (Acroterion)

1987 Dutch Reformed Church; First Reformed Church of New Brunswick. National Register of Historic Places Inventory-Nomination Form. On file, New Jersey Historic Preservation Office (NJDEP), Trenton, New Jersey.

Greiff, Constance M., Robert W. Craig and Robert Guter (Heritage Studies)

1980 Architectural Resources Survey of the City of New Brunswick. On file, New Jersey Historic Preservation Office (NJDEP), Trenton, New Jersey.

HABS (Historic American Buildings Survey)

1960 NJ-716, First Reformed Church of New Brunswick. Exterior and Interior Photographs. Electronic document, <http://www.loc.gov/pictures/search/?q=First%20Reformed%20Church%20New%20Brunswick%20NJ&co=hh>, accessed July 2019.

Hunter Research, Inc

2013a First Reformed Church of New Brunswick, City of New Brunswick, Middlesex County, New Jersey. Archaeological Investigations against the West Exterior Wall of the Church in Connection with Proposed Additions. On file, New Jersey Historic Preservation Office (NJDEP), Trenton, New Jersey.

2013b First Reformed Church of New Brunswick, City of New Brunswick, Middlesex County, New Jersey. Additional Archaeological Investigations (Excavation Unit 3) near the West Exterior Wall of the Church in Connection with Proposed Additions. On file, New Jersey Historic Preservation Office (NJDEP), Trenton, New Jersey.

Listokin, Barbara Cyviner

1976 *The Architectural History of New Brunswick, NJ, 1681-1900*. Rutgers University Art Gallery, New Brunswick, New Jersey.

A Map of the Corporation of the City of New Brunswick

1784 Manuscript map, Rutgers University Libraries Special Collections, New Brunswick, New Jersey.

Marcelus, Terhune & Letson

1829 *New Brunswick from an Actual Survey*. Manuscript map, Rutgers University, Special Collections, Alexander Library, New Brunswick, New Jersey.

Muyskens, J. David

1991 *"The Town Clock Church": History of the First Reformed Church of New Brunswick*. New Brunswick, New Jersey. The Consistory, First Reformed Church, New Brunswick, New Jersey.

Otley, J.W., and J. Keily

1850 *Map of Middlesex County, New Jersey*. Lloyd Vanderveer Camden, New Jersey. Electronic document, <https://www.loc.gov/resource/g3813m.la000456/?r=-0.069,0.24,1.02,0.628,0>, accessed July 2019.

Sanborn Map Company

1886 *Insurance Maps of New Brunswick, Middlesex County, New Jersey*. Sanborn Map Company, New York, New York.

Self, Douglas

2017 *Water Engines: Page 6*. Electronic document, <http://www.douglas-self.com/MUSEUM/POWER/waterengine/waterengine6.htm>, accessed June, 2019.

Snyder, John F.

1969 *The Story of New Jersey's Civil Boundaries, 1606-1968*. Bureau of Geology and Topography, Trenton, New Jersey.

Town Clock Community Development Corporation

2019 "Dina's Dwellings." Electronic document, <https://townclockcdc.org/dinas-dwellings/>, accessed July 2019.

Wall, John P.

1931 *Chronicles of New Brunswick, New Jersey*. Thatcher Anderson Publishing Company, New Brunswick, New Jersey.

Wall, John P., and Harold E. Pickersgill

1921 *History of Middlesex County, New Jersey*. Lewis Historical Publishing Company, New York, New York.

Walling, Henry F.

1861 Map of the County of Middlesex, New Jersey. Smith, Gallup & Co., New York, New York.

Westfield Architects & Preservation Consultants

2007 Preservation Plan, First Reformed Church of New Brunswick. On file, New Jersey Historic Preservation Office (NJDEP), Trenton, New Jersey.

Appendix A

ARCHAEOLOGICAL MONITORING PROTOCOL

APPENDIX A

ARCHAEOLOGICAL MONITORING PROTOCOL

Archaeological monitoring at the First Reformed Church of New Brunswick was carried out based on a protocol developed by Hunter Research, Inc. and approved by the New Jersey Historic Preservation Office in the spring of 2015. This work was conducted as mitigation for construction impacts on archaeological resources both within the footprint of the church building and in the surrounding churchyard. Monitoring focused in particular on the contractor's manual excavations for footings for an exterior addition adjacent to the church's west wall (work that was informed in part by earlier archaeological work in 2013 [Hunter Research, Inc. 2013a, 2013b]), but also included extensive documentation of structural features and archaeological remains exposed by mechanical and manual excavation for new footings and foundations inside the church itself.

A combination of Observational and Documentary Monitoring was performed according to the following protocol and related definitions:

“Observational Monitoring” means the rapid recordation of archaeological discoveries made during contractor operations through visual observation, photography and written notes, the inspection of the back dirt piles, and the mapping of discoveries in plan and profile. Short-term cessation of work (as defined below) may be required in order to complete some recordation actions.

“Documentary Monitoring” means the detailed archaeological investigation of discoveries while contractor operations are suspended for up to two days at any particular location. Additional stoppages beyond two days may occur when determined necessary by the Archaeological Monitor in consultation with the project sponsor, project architect, project engineer and the New Jersey Historic Preservation Office.

“Short-term cessation of work” means a period of not more than one hour set aside for documentation in conjunction with observational monitoring.

“Work Site” means the place where the contractor is undertaking the project action.

“Archaeological Site” means an individual archaeological resource.

“Contractor” means the prime construction firm or any of their subcontractors who may be undertaking work requiring archaeological monitoring.

“Archaeological Monitor” means one or more 40-hour Occupational Safety and Health Administration (“OSHA”)/Hazardous Waste Operations and Emergency

Response “(HAZWOPER”) certified archaeologists employed by the archaeological consultant and working under the direct supervision of a senior staff member meeting the National Park Services professional standards for archaeologist.

Responsibilities of the Archaeological Monitor for this project included:

1. Maintaining regular contact with the Resident Engineer and Contractor.
2. Working with/conforming to Resident Engineer and the Contractor’s procedures and schedules on the work site.
3. Working with the Resident Engineer and the Contractor to perform the required archaeological monitoring so as to limit, as far as possible, disruption to the overall construction schedule.
4. Providing adequate staff to complete appropriate recording for Observational Monitoring and Documentary Monitoring procedures.

Actions requiring monitoring included the following:

1. Removal of soils from existing grade within specified portions of the work site.
2. Excavation and trenching within specified portions of the work site for drainage, building foundations and basements, or any other bulk removal of below-ground material by machinery.

In the event intact human burials were encountered, the following protocol was to be followed:

1. If *in-situ* human burials are encountered, all ground disturbing activities in the vicinity shall cease immediately. The burials shall be left in place unless imminently threatened by human or natural displacement. Reversible actions such as careful obscuring and/or securing the burial(s) through backfilling of soils or other means shall be undertaken.
2. The New Jersey Historic Preservation Office shall be contacted immediately.
3. If it is determined that the burial site cannot be avoided because of significant design constraints, the project sponsor will, as soon as practicable, apply for a State disinterment permit to the local board of health as required under 45:27-33a of the New Jersey Cemetery Act of 2003.

4. The New Jersey Historic Preservation Office will specify the scale and nature of any analysis to be undertaken on the remains prior to and during disinterment. This typically may require the presence of a professional skeletal analyst having: 1). a graduate degree in a field involving the study of the human skeleton such as skeletal biology, forensic osteology or other relevant aspects of physical anthropology or medicine; 2). a minimum of one year's experience in conducting laboratory reconstruction and analysis of skeletal remains, including the differentiation of the physical characteristics denoting cultural or biological affinity; and 3). a demonstrated ability to design and execute a skeletal analysis, including the written results and interpretations of such analysis.

The following definitions relevant to the current undertaking come from the New Jersey Cemetery Act of 2003.

“Human remains” means a body, or part of a body, of a deceased human being.

“Cemetery” means any land or place used or dedicated for use for burial of human remains, cremation of human remains, or disposition of cremated human remains.

“Grave” means a place for underground disposition of human remains or cremated human remains.

“Interment space” means a grave or crypt intended for the interment of human remains.

Appendix B

SUMMARY OF SUBSURFACE TESTING

APPENDIX A
SUMMARY OF SUBSURFACE TESTING

Location	Unit Type	No.	Context	Depth	Soil Description [Interpretation]	Munsell	Cultural Materials	
Church Exterior,	Shovel Test	1	1	0 - 1ft	silty loam	10YR 4/3	Historic Glass Historic Metal Historic Stone	
			2	1 - 1.6ft	compact mottled silty loam with brick and stone	5YR 4/4, 5YR 5/6	Historic Composite	
		3						Historic Fired Clay - Non-ceramic
			4	1.6 - 2ft	white mortar layer	10YR 4/1, 10YR 5/1	--	
Church Exterior,	Shovel Test	2	1	0 - 0.15ft	slate plaster surface	--	--	
			2	0.15 - 0.8f	concrete base	--	--	
			3	0.8 - 1.7ft	medium rock and concrete rubble with silt	5YR 5/6	--	
			4	1.7 - 2.6ft	clayey silt with bedrock chunks	--	--	
			5	2.6 - ft	rock refusal	--	--	
Church Exterior,	Shovel Test	3	1	0 - 0.15ft	slate surface	--	--	
			2	0.15 - 0.6f	concrete base	--	--	
			3	0.6 - 1.6ft	rock and concrete with silt	5YR 4/6	--	
			4	1.6 - 3.7ft	silt with pebbles	--	--	
			5	3.7 - ft	loose silt refusal	--	--	
Church Exterior,	Shovel Test	4	1	0 - 0.15ft	paver	--	--	
			2	0.15 - 0.6	concrete	--	--	
			3	0.65 - 1.3	concrete rubble with silt	5YR 5/6	--	
			4	1.35 - 2.1	loose silt with shale chunks	--	--	
			5	2.15 - ft	loose silt refusal	--	--	
Church Exterior,	Shovel Test	5	1	0 - 0.15ft	paver	--	--	
			2	0.15 - 0.6	concrete	--	--	
			3	0.65 - 1.6	concrete and rock with silt	5YR 4/6	--	
			4	1.65 - 2.3	loose silt with pebbles	--	--	

APPENDIX A (Cont.)
SUMMARY OF SUBSURFACE TESTING

Location	Unit Type	No.	Context	Depth	Soil Description [Interpretation]	Munsell	Cultural Materials
Church Exterior,	Shovel Test	5	5	2.35 - ft	loose rock refusal	--	--
Church Exterior,	Shovel Test	6	1	0 - 1ft	dry silty loam with roots	10YR 4/3	Historic Metal
			2	0.6 - ft	stone wall [boundry wall]	--	--
			3	1 - ft	stone rubble with slate [fill of wall trench]	--	--
Church Exterior,	Shovel Test	7	1	0 - 1.2ft	dry silty loam	10YR 4/3	Historic Fired Clay - Ceramic
			2	1.2 - ft	red stone rubble impasse	--	Historic Metal --
Church Exterior,	Shovel Test	8	1	0 - 0.6ft	dry silty loam	10YR 4/3	--
			2	0.6 - 1.6ft	compact silty loam with roots and rubble	10YR 3/3	Historic Fired Clay - Ceramic
			3	1.6 - ft	dense root impasse	--	Historic Glass Historic Metal --
Church Exterior,	Shovel Test	9	1	0 - 0.4ft	dry silty loam with roots	10YR 4/3	Historic Fired Clay - Ceramic
			2	0.4 - 1.1ft	silty loam with rocks and roots	10YR 3/3	--
			3	1.1 - 1.9ft	silty clay with shale chunks	5YR 5/6	--
			4	1.9 - ft	rock refusal	--	--
Church Exterior,	Shovel Test	10	1	0 - 0.4ft	silty loam	10YR 4/3	Historic Fired Clay - Ceramic
			2	0.4 - 0.75f	silty loam with roots	10YR 3/3	Historic Glass --
			3	0.75 - 2.2f	clayey silt with shale chunks	5YR 5/6	--
			4	2.2 - ft	loose silt and rock refusal	--	--
Church Exterior,	Shovel Test	11	1	0 - 0.8ft	dry silty loam with roots	10YR 4/3	--
			2	0.8 - 2.55f	clayey silt with shale chunks	5YR 5/6	--
			3	2.55 - ft	root impasse	--	--

APPENDIX A (Cont.)
SUMMARY OF SUBSURFACE TESTING

Location	Unit Type	No.	Context	Depth	Soil Description [Interpretation]	Munsell	Cultural Materials
Church Exterior,	Shovel Test	12	1	0 - 0.8ft	mottled loam with sand inclusions and roots	10YR 3/3, 10YR 6/6, 10YR 4/1	Historic Glass
			2	0.8 - 2.55f	clay silt loam with shale chunks	5YR 5/6	Historic Metal Historic Glass Historic Metal
			3	2.55 - ft	rock refusal [possible bedrock]	--	--
Church Exterior,	Shovel Test	13	1	0 - 0.5ft	mottled silty loam with roots and sand	10YR 3/3, 10YR 6/6	Historic Fired Clay - Ceramic Historic Glass Historic Metal
			2	0.5 - 2.2ft	clayey silt with shale chunks	5YR 5/6	--
			3	2.2 - ft	loose silt refusal	--	--
Church Exterior,	Shovel Test	14	1	0 - 0.65ft	mottled dry silty loam with roots	10YR 3/3, 10YR 6/6	--
			2	0.65 - 2.3f	clayey silt with shale chunks	5YR 5/6	--
			3	2.3 - ft	rock impasse	--	--
Church Exterior,	Shovel Test	15	1	0 - 0.4ft	silty loam	10YR 4/3	Historic Glass Historic Metal
			2	0.4 - 1.2ft	mottled silty loam with rock rubble	10YR 3/3, 10YR 6/6	--
			3	1.2 - 2.6ft	silty loam with gravel	5YR 5/6	--
			4	2.6 - ft	rock refusal	--	--
Church Exterior,	Shovel Test	16	1	0 - 1ft	silty loam	10YR 4/3	Historic Glass Historic Metal
			2	1 - 2.2ft	clayey silt with shale chunks	5YR 5/6	--
			3	2.2 - ft	rock refusal	--	--
Church Exterior, Sonotube Pit		1	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed	--	--
			3	0.6 - 1.2ft	mottled gravel with	10YR 3/1, 10YR 4/1	Historic Fired Clay - Ceramic Historic Glass

APPENDIX A (Cont.)
SUMMARY OF SUBSURFACE TESTING

Location	Unit Type	No.	Context	Depth	Soil Description [Interpretation]	Munsell	Cultural Materials
Church Exterior, Sonotube Pit		1	4	1.2 - 1.9ft	sandy silt	5 YR 3/4	--
			5	1.9 - 3.2ft	compact sandy silt with dense decayed shale	5YR 5//4	--
			6	3.2 - 3.4ft	very compact silty with very dense shale		--
Church Exterior, Sonotube Pit		2	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed		--
			3	0.6 - 1.2ft	mottled gravel with	10YR 3/1, 10YR 4/1	Historic Metal
			4	1.2 - 1.9ft	sandy silt	5 YR 3/4	--
			5	1.9 - 3ft	compact sandy silt with dense decayed shale	5YR 5//4	--
			6	3 - 3.4ft	very compact silty with very dense shale		--
Church Exterior, Sonotube Pit		3	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed		--
			3	0.6 - 1ft	mottled gravel with	10YR 3/1, 10YR 4/1	--
			4	1 - 1.9ft	sandy silt	5 YR 3/4	--
			5	1.9 - 3.2ft	compact sandy silt with dense decayed shale	5YR 5//4	--
			6	3.2 - 3.4ft	very compact silty with very dense shale		--
Church Exterior, Sonotube Pit		4	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed		--
			3	0.6 - 1.2ft	mottled gravel with	10YR 3/1, 10YR 4/1	--
			4	1.2 - 1.8ft	sandy silt	5 YR 3/4	--
			5	1.8 - 3.4ft	compact sandy silt with dense decayed shale	5YR 5//4	--
Church Exterior, Sonotube Pit		5	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed		--
			3	0.6 - 1.2ft	mottled gravel with	10YR 3/1, 10YR 4/1	--
			4	1.2 - 1.8ft	sandy silt	5 YR 3/4	--

APPENDIX A (Cont.)
SUMMARY OF SUBSURFACE TESTING

Location	Unit Type	No.	Context	Depth	Soil Description [Interpretation]	Munsell	Cultural Materials
Church Exterior, Sonotube Pit		5	5	1.8 - 3.4ft	compact sandy silt with dense decayed shale	5YR 5//4	--
Church Exterior, Sonotube Pit		6	1	0 - 0.3ft	brick walkway	--	--
			2	0.3 - 0.6ft	concrete bed		--
			4	0.6 - 1.8ft	sandy silt	5 YR 3/4	--
			5	1.8 - 3.4ft	compact sandy silt with dense decayed shale	5YR 5//4	--
Church Interior,	Trench	5	2	--		--	Historic Composite
			5				Historic Glass
							Historic Composite
							Historic Fauna
							Historic Glass
Church Interior, Elevator Excavation Area			4	--		--	Historic Composite
							Historic Fired Clay - Ceramic
							Historic Glass
							Historic Metal
Church Interior, Footing		1	4	--		--	Historic Fauna
							Historic Glass

* Discarded

Appendix C

ARTIFACT INVENTORY

APPENDIX B

ARTIFACT INVENTORY

Subfloor Surface, Church Interior, General Provenience	Catalog #	1
Historic		
1 Fauna, Bone - remains, cow or horse, large mammal limb fragment, butchered - saw marks	Row #	1
1 Fauna, Bone - remains, cow or horse, large mammal pelvic fragment, butchered - saw marks	Row #	2
1 Fired Clay - Ceramic, Porcelain, Industrial, insulator whole, white, L 1.37in, cylindrical	Row #	3
1 Fired Clay - Non-ceramic, Brick, building material whole, dark red, machine made, L 7.75in, W 3.5in, T 2.25in, Maker's Mark, stamped "S & F Co" for Sayre and Fisher Brick Company, Sayreville NJ, 1850 - 1948	Row #	4
1 Glass, Curved, beverage bottle 95% complete, light aqua, machine molded, mouth and neck fractured and missing, L 9in, Maker's Mark, embossed: "BEADLESTON AND WOERZ EMPIRE BREWERY" "TRADE MARK" "NEW YORK" "THIS BOTTLE NOT TO BE RESOLD". Embossed seal: eagle, shield and banner reading "EXCELSIOR" central to two female figures, one holding a large spoon the other a large fork, 1860 - 1942	Row #	7
1 Glass, Curved, beverage flask 95% complete, clear/uncolored, machine molded, mouth and lip fractured and missing, embossed: "WARRANTED FLASK"	Row #	6
1 Glass, Curved, bottle whole, clear/uncolored, machine molded, L 9.5in, crown finish, cylindrical body, embossed: "Duraglas"	Row #	5
1 Glass, Curved, ink bottle whole, light aqua, machine molded, black residue on interior, L 3.75in, one part finish with flanged lip, cylindrical body	Row #	8
1 Glass, Flat, Decorative Church Glass, window fragment, etched, clouded white, linear decoration	Row #	11
1 Glass, Flat, Decorative Church Glass, window fragment, etched, clear/uncolored, dark brown linear decoration	Row #	10
1 Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, dark blue, decorative	Row #	9
1 Metal, Ferrous metal, wrench whole, corroded and encrusted, L 6in, W 4in, central handle with sized heads at each end, one large on one side and three smaller sizes on the other	Row #	12
<i>Total Artifacts in Suface Collection: 12</i>		
<i>Total Artifacts in General Provenience Subfloor Surface : 12</i>		
<hr/>		
2nd Floor Balcony, Church Interior, General Provenience	Catalog #	2
Historic		
1 Composite, Paper, church ephemera fragment, corroded and frayed, church calendar information flyer	Row #	3
1 Composite, Paper, church ephemera fragment, corroded and frayed, hymnal fragment with lyrics to "O Come O Come Emmanuel" by "Tr. J. M. Neale 1859"	Row #	2
1 Composite, Paper, church ephemera fragment, corroded and frayed, "Universal Bible Sunday" hymnal/pamphlet cover	Row #	1
1 Composite, Paper and Binding, book 80-90% complete, corroded and frayed, "The New Testament of Jesus Christ" published by John S Taylor, New York, printed 1839	Row #	4
<i>Total Artifacts in Suface Collection: 4</i>		
<i>Total Artifacts in General Provenience 2nd Floor Balcony : 4</i>		
<hr/>		
Church Interior, Trench 1, General Provenience	Catalog #	3
Historic		
1 Composite, Curved Glass and Cork, bottle whole, light aqua, machine molded, L 8.25in, crown finish, embossed base with figure of Pluto as well as "Pluto" and "5", some liquid remains corked within bottle	Row #	7
1 Fauna, Bone - remains, chicken, avian whole limb	Row #	3
1 Fauna, Bone - remains, cow, large mammal femur fragment, butchered - saw marks	Row #	1
3 Fauna, Bone - remains, mammal rib fragment, butchered - saw marks	Row #	2
1 Fauna, Shell - remains, clam fragment	Row #	4
1 Fired Clay - Ceramic, Earthenware, Redware, seedling pot body and base, undecorated, wheel thrown, D 1.75" at base, perforated at base for drainage	Row #	5

APPENDIX B (Cont.)
ARTIFACT INVENTORY

1	Glass, Curved, beverage bottle whole, clear/uncolored, machine molded, L 8in, crown finish, embossed body reads: "THE HADKINS BOTTLING COMPANY" "NET CONTENTS 7 3/4 OZ" "NEW BRUNSWICK NJ", irregular stamp scar on base and embossed: "REGISTERED NEW JERSEY NEW YORK"; Hadkins operated both in New Brunswick, NJ and Tottenville, NY, at one point producing currently., 1863 - 1950	Row #	8
1	Glass, Curved, bottle whole, dark amber, machine blown, L 11.75in, two part finish and long neck, cylindrical with shallow concave basal profile	Row #	6
1	Glass, Curved, stemware foot fragment, clear/uncolored, roughly ground pontil mark, likely 18th century	Row #	9
1	Glass, Flat, Decorative Church Glass, window fragment, light blue and dark blue	Row #	11
2	Glass, Flat, window fragment, light aqua	Row #	10
1	Metal, Brass, hardware whole, threaded, polished decorative fixture or fitting	Row #	12
1	Metal, Ferrous metal, Rose Head, nail whole, wrought, corroded and encrusted, L 3.75in, 18th and 19th century	Row #	14
1	Metal, Ferrous metal, nail whole, cut-late machine headed (late 1830's to Present), L 3in	Row #	13
1	Metal, Ferrous metal, spike whole, wrought, L 6in	Row #	15
1	Stone, Shale, tile edge fragment, worked or tooled edge, grey blue	Row #	16

Total Artifacts in Surface Collection: 19

Total Artifacts in General Provenience Trench 1 : 19

Church Interior, Trench 2, General Provenience

Catalog # 4

Historic

1	Fauna, Bone - remains, chicken, avian whole limb	Row #	2
1	Fauna, Bone - remains, large mammal limb fragment, butchered - saw marks	Row #	1
1	Fired Clay - Ceramic, Stoneware, Buff bodied slipware, bowl base and foot ring fragment, white slip interior and exterior	Row #	3
3	Glass, Flat, indeterminate type fragment, light stippling, light aqua	Row #	4
2	Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, dark blue	Row #	7
3	Glass, Flat, Decorative Church Glass, window fragment, dark blue and black	Row #	8
1	Glass, Flat, Decorative Church Glass, window fragment, blue and light blue	Row #	9
1	Glass, Flat, Decorative Church Glass, window fragment, applied lettering on surface, amber, white and light brown, possible "h" or "p" applied on surface	Row #	10
1	Glass, Flat, window fragment, light aqua	Row #	6
6	Glass, Flat, window fragment, clear/uncolored, patination	Row #	5
1	Metal, Ferrous metal, bolt whole, threaded, corroded and encrusted, L 3in, nut attached to end of bolt	Row #	11
1	Metal, Ferrous metal, pipe fragment, threaded, corroded, cut and encrusted, L 4in, T-shaped joint	Row #	12

Total Artifacts in Surface Collection: 22

Total Artifacts in General Provenience Trench 2 : 22

Church Interior, Trench 4, General Provenience

Catalog # 5

Historic

1	Fired Clay - Non-ceramic, Brick, building material fragment, red	Row #	1
1	Glass, Curved, bottle neck fragment, ribbed, green	Row #	5
1	Glass, Curved, container fragment, etched floral pattern, clear/uncolored, mold seam	Row #	4
2	Glass, Curved, container fragment, clear/uncolored	Row #	3
1	Glass, Curved, container fragment, clouded white	Row #	2
1	Glass, Flat, indeterminate type fragment, clear/uncolored	Row #	6
1	Metal, Ferrous metal, nail fragment, wire, corroded and encrusted; head missing	Row #	7
2	Metal, Ferrous metal, nail fragment, cut-late machine headed (late 1830's to Present), corroded and encrusted	Row #	8

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

Total Artifacts in Surface Collection: 10

Total Artifacts in General Provenience Trench 4 : 10

Church Interior, Trench 5, General Provenience	Catalog #	6
Historic		
1 Fired Clay - Non-ceramic, Ball Clay, smoking pipe stem fragment, white, D 4/64", 1750 - 1800	Row #	2
1 Fired Clay - Non-ceramic, Brick, building material fragment, red	Row #	1
1 Glass, Curved, Milk Glass, jar lid fragment, white	Row #	3
2 Glass, Curved, Milk Glass, ointment container fragment, white	Row #	6
2 Glass, Flat, window fragment, light aqua	Row #	4
1 Glass, Flat, Decorative Church Glass, window fragment, white and amber	Row #	5
1 Metal, Ferrous metal, nail fragment, wrought, T-headed, corroded and encrusted, 18th century and later	Row #	8
1 Metal, Ferrous metal, nail whole, wire, corroded and encrusted, L 3.37in	Row #	7
1 Metal, Ferrous metal, spike whole, wrought, corroded and encrusted, L 3.75in, rose headed type	Row #	9

Total Artifacts in Surface Collection: 11

Total Artifacts in General Provenience Trench 5 : 11

Church Interior, Trench 5, Context 2	Catalog #	7
Historic		
1 Composite, Sand, Stone and Other Materials, mortar fragment, smoothed surface on one side, pinkish grey, with shale stone inclusions	Row #	1
1 Glass, Flat, window fragment, light stippling, light aqua	Row #	2

Total Artifacts in Context 2: 2

Total Artifacts in Trench 5 : 2

Church Interior, Trench 5, Context 5	Catalog #	8
Historic		
1 Composite, Stone and Sand, mortar fragment, white, with shale stone inclusions	Row #	1
1 Fauna, Shell - remains, oyster fragment	Row #	2
1 Glass, Curved, container fragment, olive green, patination	Row #	3

Total Artifacts in Context 5: 3

Total Artifacts in Trench 5 : 3

Basement Excavation Area, Church Interior, General Provenience	Catalog #	9
Historic		
1 Composite, Sand, Stone and Other Materials, mortar fragment, whitewashed surface, pinkish grey, with lime inclusions	Row #	1
1 Fired Clay - Non-ceramic, Brick, Fire Brick, building material fragment, high-fired, yellowish white, T 2.15in	Row #	3
1 Fired Clay - Non-ceramic, Brick, building material fragment, red	Row #	2
1 Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, green	Row #	6
1 Glass, Flat, window fragment, aqua	Row #	5
2 Glass, Flat, window fragment, light aqua	Row #	4
1 Metal, Ferrous metal, nail fragment, cut-late machine headed (late 1830's to Present), corroded and encrusted	Row #	7

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

Total Artifacts in Surface Collection: 8

Total Artifacts in General Provenience Basement Excavation Area : 8

Elevator Excavation Area, Church Interior, Context 4 **Catalog # 10**

Historic

1 Composite, Sand, Stone and Other Materials, mortar fragment, whitewashed surface, pinkish grey, with lime inclusions	Row #	1
1 Fired Clay - Ceramic, Earthenware, Delftware, French Faience, ointment rim fragment, bluish white glaze, 18th century	Row #	2
1 Glass, Flat, window fragment, aqua	Row #	3
1 Metal, Ferrous metal, nail fragment, wrought, L-headed, corroded and encrusted, 18th century and later	Row #	4

Total Artifacts in Context 4: 4

Total Artifacts in Elevator Excavation Area : 4

Footing, Church Interior, 1, Context 4 **Catalog # 11**

Historic

1 Fauna, Shell - remains, oyster fragment	Row #	1
1 Glass, Flat, window fragment, light aqua	Row #	2

Total Artifacts in Context 4: 2

Total Artifacts in Footing 1 : 2

Footing, Church Interior, 2, General Provenience **Catalog # 12**

Historic

1 Glass, Curved, container fragment, light green	Row #	1
--	-------	---

Total Artifacts in Surface Collection: 1

Total Artifacts in General Provenience Footing 2 : 1

Footing, Church Interior, 8, General Provenience **Catalog # 13**

Historic

1 Fauna, Shell - remains, clam fragment	Row #	1
1 Fauna, Shell - remains, oyster fragment	Row #	2
2 Fired Clay - Non-ceramic, Ball Clay, smoking pipe stem fragment, D 5/64", 1710 - 1750	Row #	3

Total Artifacts in Surface Collection: 4

Total Artifacts in General Provenience Footing 8 : 4

East Excavation Area, Church Interior, General Provenience **Catalog # 14**

Historic

1 Composite, Curved Glass and Cork, bottle mouth, neck and shoulder fragment, clear/uncolored, mold seam, stout neck with two part stopper finish, cork still in place	Row #	1
--	-------	---

Total Artifacts in Surface Collection: 1

Total Artifacts in General Provenience East Excavation Area : 1

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

Church Interior, Trench 6, General Provenience	Catalog #	15
Historic		
1 Fauna, Bone - remains, horse, large mammal whole vertebrae	Row #	1
1 Fauna, Bone - remains, goat, medium mammal horn fragment, underdeveloped and very brittle	Row #	2
1 Fauna, Shell - remains, clam fragment	Row #	3
1 Glass, Curved, wine bottle base fragment, dark olive, patination, deep pontil	Row #	4

Total Artifacts in Surface Collection: 4

Total Artifacts in General Provenience Trench 6 : 4

Church Interior, Trench 7, General Provenience	Catalog #	16
Historic		
1 Glass, Flat, window fragment, aqua, patination	Row #	1
1 Metal, Ferrous metal, nail whole, cut-late machine headed (late 1830's to Present), corroded and encrusted, L 3in	Row #	2
1 Metal, Ferrous metal, nail whole, cut-late machine headed (late 1830's to Present), corroded and encrusted, L 4.17in	Row #	4
1 Metal, Ferrous metal, nail whole, wrought, T-headed, L 2.75in, 18th century and later	Row #	3

Total Artifacts in Surface Collection: 4

Total Artifacts in General Provenience Trench 7 : 4

Extension of 2013 Unit, Church Exterior, Excavation Unit 3, General Provenience	Catalog #	17
Modern		
1 Metal, Galvanized Steel, nail whole, L 6in, nail from 2013 HRI Investigation, evidence for previous archaeological investigation in the north portion of the current excavation area	Row #	6
Historic		
2 Fauna, Shell - remains, clam fragment	Row #	1
1 Fauna, Shell - remains, oyster fragment	Row #	2
1 Fired Clay - Ceramic, Stoneware, grey body, hollow ware body fragment, salt glaze exterior with cobalt blue decoration, dark brown slip interior, underfired, mid to late 19th century	Row #	3
1 Metal, Ferrous metal, nail fragment, wrought, T-headed, corroded, 18th century and later	Row #	4
1 Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row #	5

Total Artifacts in Surface Collection: 7

Total Artifacts in General Provenience Extension of 2013 Unit Excavation Unit 3 :

Church Exterior, Excavation Unit 4, General Provenience	Catalog #	18
Historic		
1 Fauna, Shell - remains, clam fragment	Row #	1
1 Fauna, Shell - remains, oyster fragment	Row #	2
1 Fired Clay - Ceramic, Porcelain, Chinese Export, bowl base and foot ring fragment, blue overglaze pattern, 1660 - 1880	Row #	4
1 Fired Clay - Ceramic, Refined Earthenware, Ironstone, dish rim fragment, undecorated, 1840 - 1950	Row #	5
1 Fired Clay - Ceramic, Refined Earthenware, Pearlware, hollow ware body fragment, blue hand painted underglaze, 1790 - 1840	Row #	7
1 Fired Clay - Ceramic, Refined Earthenware, Pearlware, hollow ware body fragment, polychrome hand painted floral pattern underglaze, 1790 - 1840	Row #	6
1 Fired Clay - Ceramic, Refined Earthenware, Pearlware, teacup body fragment, blue transfer printed geometric pattern, 1815 - 1840	Row #	8
1 Fired Clay - Non-ceramic, Brick, building material fragment, red	Row #	9

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

6	Flora, Wood, Coffin, cut timber fragment	Row #	3
1	Glass, Curved, bottle body fragment, dark aqua	Row #	10
1	Glass, Curved, Milk Glass, lamp chimney body fragment, embossed sphere pattern, white	Row #	11
1	Glass, Flat, window fragment, light aqua	Row #	12
1	Glass, Flat, Decorative Church Glass, window fragment, white	Row #	13
6	Metal, Ferrous metal, Coffin Hardware, nail fragment, found near and around Lot 18.3.	Row #	14
1	Metal, Ferrous metal, nail fragment	Row #	15

Total Artifacts in Surface Collection: 25

Total Artifacts in General Provenience Excavation Unit 4 : 25

Church Exterior, Excavation Unit 5, General Provenience

Catalog # 19

Historic

1	Fauna, Shell - remains, clam fragment	Row #	1
1	Fauna, Shell - remains, oyster fragment	Row #	2
1	Fired Clay - Ceramic, Stoneware, grey body, hollow ware body fragment, brown slip both surfaces	Row #	3
2	Glass, Curved, bottle body fragment, olive green	Row #	7
3	Glass, Flat, Milk Glass, indeterminate type fragment, white	Row #	4
2	Glass, Flat, window fragment, aqua	Row #	5
2	Glass, Flat, window fragment, clear/uncolored	Row #	6
2	Metal, Ferrous metal, nail fragment, corroded and encrusted	Row #	8

Total Artifacts in Surface Collection: 14

Total Artifacts in General Provenience Excavation Unit 5 : 14

Church Exterior, Excavation Unit 7, General Provenience

Catalog # 20

Historic

1	Fauna, Bone - remains, cow or horse, large mammal rib fragment, butchered - saw marks	Row #	3
1	Fauna, Bone - remains, cow or horse, large mammal femur fragment, butchered - saw marks	Row #	4
1	Fauna, Bone - remains, dog, medium mammal whole humerus, likely pairs with 20.2	Row #	1
1	Fauna, Bone - remains, dog, medium mammal whole humerus, likely pairs with 20.1	Row #	2
2	Fauna, Bone - remains, fox, medium mammal whole humerus	Row #	5
2	Fauna, Bone - remains, fox, medium mammal whole femur	Row #	6
2	Fauna, Bone - remains, fox, medium mammal whole pelvis	Row #	7
1	Fauna, Bone - remains, fox, medium mammal whole tibia	Row #	10
2	Fauna, Bone - remains, fox, medium mammal whole ulna	Row #	8
1	Fauna, Bone - remains, fox, medium mammal whole radius	Row #	9
2	Fauna, Shell - remains, clam fragment	Row #	11
1	Fauna, Shell - remains, oyster fragment	Row #	12
1	Fired Clay - Ceramic, Earthenware, Redware, hollow ware rim and body fragment, mottled lead and manganese glazed interior, exterior surface missing	Row #	13
9	Fired Clay - Ceramic, Refined Earthenware, Ironstone, Decorative Vase/Planter, large hollow ware 70-80% complete if mended, polychrome transfer printed floral pattern, molded design, Maker's Mark, hole drilled through base (after production as it punches through the mark area), partial mark stamped underglaze; "MADDOCK" is legible; the Maddock Potteries of Trenton, NJ existed from the late 19th to early 20th century	Row #	15
1	Fired Clay - Ceramic, Refined Earthenware, Whiteware, hollow ware body fragment, undecorated, 1815 - 1950	Row #	14

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

16	Glass, Curved, peanut jar 70-80% complete if mended, clear/uncolored, mold seam, Planters' Company peanut jar. Embossed Mr. Peanut figure and indication of sale for "5 cents per pound". 1920s to 1930s era octagonal shaped jar. No evidence of lid recovered.	Row # 18
8	Glass, Curved, soda bottle 70-80% complete if mended, green, mold seam, cylindrical body with threaded mouth and trace of aluminum screw cap remaining. Evidence of adhesive label indicates likely 20th century origin	Row # 17
3	Glass, Flat, window fragment, aqua	Row # 16

Total Artifacts in Surface Collection: 55

Total Artifacts in General Provenience Excavation Unit 7 : 55

Church Exterior, Excavation Unit 8, General Provenience **Catalog # 21**

Historic

1	Fauna, Shell - remains, clam fragment	Row # 1
1	Fauna, Shell - remains, oyster fragment	Row # 2
1	Glass, Flat, window fragment, light aqua	Row # 3

Total Artifacts in Surface Collection: 3

Total Artifacts in General Provenience Excavation Unit 8 : 3

Utility Excavation Area, Church Interior, General Provenience **Catalog # 22**

Historic

2	Composite, Sand, Stone and Other Materials, mortar fragment, whitewashed surface, pinkish grey	Row # 1
1	Fauna, Shell - remains, clam fragment	Row # 2
1	Glass, Flat, window fragment, aqua	Row # 3
1	Metal, Ferrous metal, nail whole, cut-hand headed (c. 1790-1820's), corroded and encrusted, L 3in, crimped tip	Row # 4

Total Artifacts in Surface Collection: 5

Total Artifacts in General Provenience Utility Excavation Area : 5

Church Exterior, Shovel Test 1, Context 1 **Catalog # 23**

Historic

1	Glass, Curved, button whole, white, two hole threaded	Row # 1
2	Glass, Curved, indeterminate vessel fragment, clear/uncolored	Row # 2
3	Glass, Flat, window fragment, aqua	Row # 3
4	Glass, Flat, window fragment, light aqua, plate glass	Row # 4
1	Metal, Ferrous metal, indeterminate type fragment, corroded and encrusted	Row # 6
2	Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row # 7
1	Metal, Nickel Alloy, US dime whole, 1982	Row # 5
6	Stone, Sandstone, architectural stone fragment, dressed linear pattern, probable spalled wall fragments of existing 1812 church exterior	Row # 8

Total Artifacts in Context 1: 20

Total Artifacts in Shovel Test 1 : 20

Church Exterior, Shovel Test 1, Context 2 **Catalog # 24**

Historic

1	Composite, Sand, Stone and Other Materials, mortar fragment, white and grey	Row # 1
---	---	---------

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

2 Fired Clay - Non-ceramic, Ball Clay, smoking pipe, bowl fragment, white	Row #	2
1 Glass, Flat, window fragment, light aqua	Row #	3

Total Artifacts in Context 2: 4

Total Artifacts in Shovel Test 1 : 4

Church Exterior, Shovel Test 6, Context 1 **Catalog # 25**

Historic

1 Metal, Ferrous metal, nut whole, threaded, corroded and encrusted, D 1", square-shaped	Row #	1
--	-------	---

Total Artifacts in Context 1: 1

Total Artifacts in Shovel Test 6 : 1

Church Exterior, Shovel Test 7, Context 1 **Catalog # 26**

Historic

1 Fired Clay - Ceramic, Refined Earthenware, Creamware, plate fragment, undecorated, 1762 - 1820	Row #	1
1 Fired Clay - Ceramic, Refined Earthenware, Pearlware, Annularware, hollow ware fragment, banded (hand painted), brown and green, 1790 - 1820	Row #	2
1 Metal, Ferrous metal, nail whole, wire, corroded and encrusted, L 2.5in	Row #	3

Total Artifacts in Context 1: 3

Total Artifacts in Shovel Test 7 : 3

Church Exterior, Shovel Test 8, Context 2 **Catalog # 27**

Historic

1 Fired Clay - Ceramic, Refined Earthenware, Whiteware, plate rim, undecorated, 1815 - 1950	Row #	1
1 Glass, flat, window fragment, clear/uncolored	Row #	2
1 Metal, Copper alloy, Liberty head large cent whole, corroded, 1826	Row #	4
1 Metal, Copper alloy, Liberty head large cent whole, corroded, faded face, possible date of 1840	Row #	5
1 Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row #	7
1 Metal, Ferrous metal, nail fragment, wire, corroded and encrusted	Row #	6
1 Metal, White Metal, finial fragment, molded floral design, marked "4091" on reverse, evidence of corrosion on fractured backend indicated it was attached to a ferrous metal object	Row #	3

Total Artifacts in Context 2: 7

Total Artifacts in Shovel Test 8 : 7

Church Exterior, Shovel Test 9, Context 1 **Catalog # 28**

Historic

1 Fired Clay - Ceramic, Refined Earthenware, Whiteware, hollow ware fragment, transfer printed, blue, 1815 - 1950	Row #	1
---	-------	---

Total Artifacts in Context 1: 1

Total Artifacts in Shovel Test 9 : 1

Church Exterior, Shovel Test 10, Context 1 **Catalog # 29**

Historic

1 Fired Clay - Ceramic, Refined Earthenware, Pearlware, plate rim fragment, "Flow Blue" pattern, 1815 - 1835	Row #	1
--	-------	---

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

1 Glass, Curved, indeterminate type fragment, clear/uncolored	Row #	2
<i>Total Artifacts in Context 1: 2</i>		
<i>Total Artifacts in Shovel Test 10 : 2</i>		
<hr/>		
Church Exterior, Shovel Test 12, Context 1	Catalog #	30
Historic		
5 Glass, Flat, window fragment, aqua	Row #	1
1 Metal, Ferrous metal, nail whole, cut, corroded and encrusted, L 3in	Row #	2
1 Metal, Ferrous metal, nail whole, cut, corroded and encrusted, L 4in	Row #	3
<i>Total Artifacts in Context 1: 7</i>		
<i>Total Artifacts in Shovel Test 12 : 7</i>		
<hr/>		
Church Exterior, Shovel Test 12, Context 2	Catalog #	31
Historic		
1 Glass, Flat, window fragment, clear/uncolored	Row #	1
1 Glass, Flat, window fragment, aqua	Row #	2
1 Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row #	3
<i>Total Artifacts in Context 2: 3</i>		
<i>Total Artifacts in Shovel Test 12 : 3</i>		
<hr/>		
Church Exterior, Shovel Test 13, Context 1	Catalog #	32
Historic		
1 Fired Clay - Ceramic, Refined Earthenware, Ironstone, hollow ware fragment, undecorated, 1840 - 1950	Row #	1
1 Glass, Flat, window fragment, stippled, clear/uncolored	Row #	3
12 Glass, Flat, window fragment, clear/uncolored, plate glass	Row #	4
1 Glass, Flat, window fragment, aqua	Row #	2
1 Metal, Ferrous metal, nail fragment, wire, corroded and encrusted	Row #	5
1 Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row #	6
<i>Total Artifacts in Context 1: 17</i>		
<i>Total Artifacts in Shovel Test 13 : 17</i>		
<hr/>		
Church Exterior, Shovel Test 15, Context 1	Catalog #	33
Historic		
1 Glass, Flat, indeterminate type fragment, olive green	Row #	1
1 Metal, Ferrous metal, nail fragment, cut, corroded and encrusted	Row #	2
<i>Total Artifacts in Context 1: 2</i>		
<i>Total Artifacts in Shovel Test 15 : 2</i>		
<hr/>		
Church Exterior, Shovel Test 16, Context 1	Catalog #	34
Historic		
3 Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, olive green	Row #	1
1 Metal, Ferrous metal, nail fragment, square shank	Row #	2

**APPENDIX B (Cont.)
ARTIFACT INVENTORY**

1 Metal, Ferrous metal, nail fragment, wire, encrusted Row # 3

Total Artifacts in Context 1: 5

Total Artifacts in Shovel Test 16 : 5

Church Exterior, Trench 8, General Provenience Catalog # 35

Modern

1 Composite, Assorted Metal Alloys, keys and keyring set, includes ferrous iron historic key on ring, probable earlier church key Row # 4

1 Composite, Assorted Metal Alloys and Enamel, decorative pin fragment, gold-plated with enameled geometric pattern, gold, pink and green, tear drop shaped; pin backing is missing, corroded iron agglutinated in the pattern of the pin fastener on back Row # 5

Historic

2 Glass, Cuesta Quartzite, bottle mouth and neck fragment, olive green, hand applied V-shaped lip, patination Row # 7

1 Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, olive green Row # 6

3 Glass, Flat, window fragment, thick plate glass Row # 3

2 Glass, Flat, Decorative Church Glass, window fragment, brown, red and yellow Row # 2

1 Glass, Flat, Decorative Church Glass, window fragment, impressed wavy pattern, light green Row # 1

Total Artifacts in Surface Collection: 11

Total Artifacts in General Provenience Trench 8 : 11

Sonotube Pit, Church Exterior, 1, Context 3 Catalog # 36

Historic

2 Fired Clay - Ceramic, Porcelain, Indeterminate, hollow ware fragment, undecorated, white Row # 1

3 Glass, Flat, window fragment, light aqua Row # 2

Total Artifacts in Context 3: 5

Total Artifacts in Sonotube Pit 1 : 5

Sonotube Pit, Church Exterior, 2, Context 3 Catalog # 37

Historic

1 Metal, Ferrous metal, nail fragment, wire, corroded and encrusted Row # 1

Total Artifacts in Context 3: 1

Total Artifacts in Sonotube Pit 2 : 1

Total Number of Artifacts: 309

Appendix D

**BURIAL MARKER FRAGMENTS IDENTIFIED DURING
ARCHAEOLOGICAL MONITORING IN 2015**

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/19/2015	1	interior; west	1	indeterminate	foot stone (fragment)	1.35 x 0.95 x 0.2 ft	inscribed "C.W.V."	Charlotte Webster Voorhees, 1828-15 July 1832; Charles William van Brunt, unknown-1827; Catherine Wogland van Tine, 1765-14 Sep 1836
1/19/2015	2	interior; southwest	1	marble	foot stone (complete)	2.1 x 0.95 x 0.25 ft	inscribed "J.H.S."	John H. Speer, unknown to 23 Oct
1/19/2015	3	interior; southeast	1	marble	foot stone (fragment)	0.8 x 0.2 x 0.4 ft	inscribed "1830"	
1/19/2015	4	interior; northwest	1	indeterminate	foot stone (possible)	0.2 x 1.25 ft		
1/19/2015	5	interior; window well	1	marble	foot stone (complete)	1.1 x 0.45 x 0.2 ft	inscribed "W.H.B."	William Henry Booraem, July 1811-13 Dec 1811
1/19/2015	6	interior; window well	2	marble	foot stone (mend)	1.3 x 0.5 x 0.2 ft	inscribed "E.M.S."	
1/19/2015	7	interior; window well	1	marble	foot stone (fragment)	0.5 x 0.55 x 0.2 ft		
1/19/2015	8	interior; window well	1	marble	foot stone (fragment)	0.5 x 0.7 x 0.15 ft		
1/20/2015	1	interior; n/a	1	brownstone	foot stone (fragment)	0.65 x 0.45 x 0.15 ft	inscribed "A.M."	Amelia Miller, 26 Aug 1820-6 Sep 1851
1/20/2015	2	interior; n/a	1	marble	foot stone (fragment)	0.3 x 0.4 x 0.2 ft	top, text missing	
1/20/2015	3	interior; n/a	1	marble	foot stone (fragment)	0.5 x 0.75 x 0.2 ft	midsection, no text	
1/28/2015	1	interior; brick wall 1	1	marble	foot stone (complete)	1.8 x 1 x 0.2 ft	inscribed "H.B."	Henry Bell, unknown; Henry Bennet, 25 Dec 1772-19 Dec 1824; Henry Booraem, 21 Feb 1810-19 June 1835
1/28/2015	2	interior; brick wall 1	1	marble	foot stone (fragment)	1.5 x 0.6 x 0.15 ft	inscribed "[...]M.C."	Huldah Matilda Carman, 23 Apr 1817-27 Mar 1843
1/28/2015	3	interior; brick wall 1	1	brownstone	indeterminate		dressed edge	
1/28/2015	4	interior; brick wall 1	1	brownstone	indeterminate		dressed edge	

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/28/2015	5	interior; brick wall 1	1	marble	foot stone (complete)	0.6 x 0.5 x 0.15	inscribed "H.A.V"	Hester Ackerman van Deventer, 30 June 1788-11 Mar 1807
1/28/2015	6	interior; brick wall 1	1	brownstone	foot stone (complete)	1.5 x 1 x 0.15	inscribed "E.S."	Elizabeth Smock, 1761-12 Mar 1805
1/28/2015	7	interior; brick wall 1	1	marble	foot stone (complete)	2 x 1.1 x 0.2 ft	inscribed "[...]P.V."	Rev. John P. Van Arsdale, 14 Sep- 20 Sep 1837; Barent John P. Voorhees, 22 Sep 1799-30 Apr 1862
1/28/2015	8	interior; brick wall 1	1	brownstone	foot stone (complete)	2 x 0.95 x 0.2 ft	dressed edges, mortar/concrete blocking probable text	
1/28/2015	9	interior; brick wall 1	1	marble	foot stone (complete)	2.1 x 1 x 0.2 ft	inscribed "S.D.W."	
1/28/2015	10	interior; brick wall 1	4	marble	foot stone (mend)	2 x 1.3 x 0.2 ft		
1/28/2015	11	interior; brick wall 1	2	marble	foot stone (mend)	2 x 1 x 0.2 ft	inscribed "C.C."	Catherine Carman, 16 Oct 1814-17 Feb 1891
1/28/2015	12	interior; brick wall 1	1	brownstone	indeterminate	1.4 x 1 x 0.2 ft	dressed edge	
1/28/2015	13	interior; brick wall 1	1	marble	foot stone	1.4 x 1 x 0.2 ft	2 fragments missing	
1/28/2015	14	interior; brick wall 1	1	marble	foot stone	2 x 0.8 x 0.8 ft	inscribed "[...] S."	
1/28/2015	15	interior; brick wall 1	1	marble	foot stone	1.8 x 1.2 x 0.25 ft	inscribed "E.S."	Elizabeth Smock, 1761-12 Mar 1805
1/28/2015	16	interior; brick wall 1	2	marble	foot stone (mend)	2.1 x 0.95 x 0.2 ft	mortar/concrete blocking probable text	
1/28/2015	17	interior; brick wall 1	1	marble	foot stone	2 x 0.8 x 0.2 ft	inscribed "[...] B.",2 fragments missing	
1/28/2015	18	interior; brick wall 1	1	brownstone	foot stone	1.8 x 0.8 x 0.2 ft		
1/28/2015	19	interior; brick wall 1	2	marble	foot stone (mend)	1.7 x 0.8 x 0.2 ft	inscribed "E.A.S."	Elizabeth Ann Strong, 14 Aug 1802-17 Jan 1824

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/28/2015	20	interior; brick wall 1	1	marble	foot stone	1.8 x 0.8 x 0.2 ft	inscribed "P.S.V."	Peter Smith Van Sickle, 4 Sep 1805-21 Dec 1867; Peter Stryker Voorhees, 1800-9 Aug 1866
1/28/2015	21	interior; brick wall 1	1	marble	foot stone	2 x 0.8 x 0.2 ft		
1/28/2015	22	interior; brick wall 1	2	marble	foot stone (mend)	1.7 x 0.8 x 0.2 ft	inscribed "E.A.S."	Elizabeth Ann Strong, 14 Aug 1802-17 Jan 1824
1/28/2015	23	interior; brick wall 1	1	marble	foot stone	1.4 x 0.8 x 0.15 ft		
1/28/2015	24	interior; brick wall 1	2	marble	foot stone (mend)	1.2 x 0.7 x 0.15 ft		
1/28/2015	25	interior; brick wall 1	1	marble	foot stone	1.7 x 0.6 x 0.2 ft	inscribed "[...] H. [...]"	
1/28/2015	26	interior; brick wall 1	1	marble	foot stone	1.7 x 0.8 x 0.2 ft		
1/28/2015	27	interior; brick wall 1	1	marble	foot stone	0.5 x 0.5 x 0.2 ft	inscribed "I. [...] M. C."	Huldah Matilda Carman, 23 Apr 1817-27 Mar 1843
1/28/2015	28	interior; brick wall 1	1	marble	foot stone	0.6 x 1.2 x 0.2 ft		
1/28/2015	29	interior; brick wall 1	1	marble	foot stone	0.6 x 1.4 x 0.2 ft		
1/28/2015	30	interior; brick wall 1	1	marble	foot stone	1.5 x 0.8 x 0.2 ft	inscribed "[...] P."	
1/28/2015	21	interior; brick wall 1	1	marble	foot stone	1 x 0.8 x 0.15 ft	inscribed "G.R.[...]"	Garret R. Voorhees, 1757-12 Apr 1812
1/28/2015	32	interior; brick wall 1	1	brownstone	foot stone	1.85 x 1 x 0.2 ft	inscribed "[...] S."	
1/28/2015	33	interior; brick wall 1	1	marble	foot stone	1.4 x 0.5 x 0.2 ft	inscribed "S.E.H."	Sarah Elizabeth Hagar, unknown
1/28/2015	34	interior; brick wall 1	1	marble	foot stone	1.2 x 0.6 x 0.2 ft	inscribed "J.[...]" "E.[...]"	
1/28/2015	35	interior; brick wall 1	1	marble	foot stone	1.5 x 0.6 x 0.2 ft	inscription illegible	

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/28/2015	36	interior; brick wall 1	1	marble	foot stone	1.4 x 0.7 x 0.2 ft	inscribed "A. C. [...]"	
1/28/2015	37	interior; brick wall 1	1	brownstone	foot stone	1.6 x 0.85 x 0.2 ft	inscription illegible	
1/28/2015	38	interior; brick wall 1	1	marble	foot stone	1.7 x 0.8 x 0.2 ft	inscribed "S. A. [...]"	
1/28/2015	39	interior; brick wall 1	1	marble	foot stone	1.4 x 0.7 x 0.2 ft	inscribed "C.B."	Cornelis Bennet, 20 May 1700-unknown; Caroline Bookstaver, 1846-1863; Charles Bridgen, unknown
1/28/2015	40	interior; brick wall 1	1	marble	foot stone	1.5 x 0.8 x 0.2 ft	inscribed "H.A.[...]"	
1/28/2015	41	interior; brick wall 1	1	marble	foot stone	1.6 x 0.5 x 0.2 ft	inscribed "R.D.M."	Rosetta Disbrow Manley, 8 Jn 1802-31 Oct 1833
1/28/2015	42	interior; brick wall 1, north end	2	marble	foot stone (mend)	1.8 x 1.3 x 0.2 ft	inscribed "M.E.V."	Mary Elizabeth Voorhees, 7 Oct 1829-27 May 1849
1/29/2015	1	interior: water engine slab	1	marble		2 x 0.95 x 0.15 ft	inscribed "[...]B"	
1/29/2015	2	interior: water engine slab	1	brownstone		1.4 x 0.8 x 0.2 ft		
1/29/2015	3	interior: water engine slab	1	marble		1.6 x 0.85 x 0.25		
1/29/2015	4	interior: water engine slab	2	marble		1.8 x 0.75 x 0.2	pieces mend	
1/29/2015	5	interior: water engine slab	1	marble		0.75 x 0.95 x 0.2		
1/29/2015	6	interior: water engine slab	6	marble	indeterminate fragments	range in thickness: 0.15-0.2 feet		
1/29/2015	7	interior: brick wall 2, south end	1	marble	foot stone	1.65 x 0.9 x 0.15 ft	inscribed "M.A.L."	
1/29/2015	8	interior: brick wall 2, south end	1	marble	foot stone	1.2 x 0.6 x 0.2 ft	inscribed "S[...]"	

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/29/2015	9	interior: brick wall 2, south end	1	marble	foot stone	1.2 x 0.65 x 0.2 ft	inscribed "E.R.S."	
1/29/2015	10	interior: brick wall 2, south end	1	granite	foot stone	1.7 x 0.8 x 0.15 ft		
1/29/2015	11	interior: brick wall 2, south end	1	marble	foot stone	1.9 x 0.7 x 0.2 ft		
1/29/2015	12	interior: brick wall 2, south end	1	brownstone	foot stone	1.55 x 0.65 x 0.2 ft		
1/29/2015	13	interior: brick wall 2, south end	1	marble	foot stone	1.4 x 0.5 x 0.2 ft	inscribed "E.S."	Elizabeth Smock, 1761-12 Mar 1805
1/29/2015	14	interior: brick wall 2, south end	4	marble	indeterminate fragments	1 x 0.6 x 0.15 ft		
1/29/2015	15	interior: brick wall 2, south end	1	marble	indeterminate	1.45 x 0.45 x 0.15 ft		
1/29/2015	16	interior: brick wall 2, south end	1	marble	foot stone	1.3 x 0.65 x 0.2 ft		
1/29/2015	17	interior: brick wall 2, south end	1	marble	foot stone	1.4 x 0.65 x 0.2 ft	inscribed "C.D.P.N."	Catharine Disborough Polhemus Nevius, 27 Jul 1801-22 Jun 1879
1/29/2015	18	interior: brick wall 2, south end	1	marble	head stone	2.5 x 2 x 0.2 ft	inscribed "[BORN][...] 1800" "DIED JUNE 30 1864"	
1/29/2015	1	interior: brick wall 2, under brick layer	2	marble	foot stone (mend)	2.2 x 0.8 x 0.15 ft	inscribed "S.B."	Susan Bennett, 1 Jun 1790-7 Mar 1832
1/29/2015	2	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.5 x 1.1 x 0.2 ft	inscribed "P.P."	Priscilla Smalley Probasco, 5 Dec 1775-25 Apr 1813
1/29/2015	3	interior: brick wall 2, under brick layer	1	marble	foot stone	2.2 x 0.5 x 0.15	mortar/concrete blocking probable text	
1/29/2015	4	interior: brick wall 2, under brick layer	1	marble	foot stone	1.3 x 0.65 x 0.15 ft	inscribed "E. [...] S."	
1/29/2015	5	interior: brick wall 2, under brick layer	1	marble	foot stone	1.95 x 1 x 0.2 ft	inscribed "R.W.C."	Ruth W. Conduct, 1800-22 Dec 1811

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/29/2015	6	interior: brick wall 2, under brick layer	3	marble	foot stone (mend)	1.8 x 0.8 x 0.25 ft	inscription illegible	
1/29/2015	7	interior: brick wall 2, under brick layer	2	marble	foot stone (mend)	1.2 x 0.65 x 0.15 ft	inscription illegible	
1/29/2015	8	interior: brick wall 2, under brick layer	2	marble	foot stone (mend)	0.4 x 0.8 x 0.15 ft	inscribed "I.V."	Isaac Van Arsdalen, May 1797-13 Dec 1878; Isaac Voorhees, 1789-1824; Isabella Voorhees, unknown
1/29/2015	9	interior: brick wall 2, under brick layer	10	marble	indeterminate fragments			
1/29/2015	10	interior: brick wall 2, under brick layer	1	brownstone	indeterminate fragment			
1/29/2015	11	interior: brick wall 2, under brick layer	1	marble	foot stone	1.5 x 0.5 x 0.15 ft	inscribed "A.B."	Abraham Bennett, 1776-17 Mar 1810; Ann Blakeney, 1800=14 Apr 1853; Andrew Brown, 12 Oct 1838-27 Mar 1840
1/29/2015	12	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.8 x 0.9 x 0.25 ft	inscribed "C.V.A."	Cornelius Van Anglen, 1769-30 Jul 1822; Cornelius Van Arsdalen, 14 Jan 1794-10 Dec 1814
1/29/2015	13	interior: brick wall 2, under brick layer	2	brownstone	foot stone (mend)	1.6 x 1 x 0.2 ft	inscription illegible	
1/29/2015	14	interior: brick wall 2, under brick layer	1	marble	foot stone	1.3 x 0.6 x 0.2 ft	inscribed "[...] B."	
1/29/2015	15	interior: brick wall 2, under brick layer	4	marble	foot stone (mend)	2 x 0.65 x 0.15 ft	inscribed "[...] T."	
1/29/2015	16	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.2 x 0.5 x 0.2 ft	inscribed "M. [...] A."	
1/29/2015	17	interior: brick wall 2, under brick layer	1	marble	foot stone	1.7 x 0.85 x 0.2 ft	inscribed "A.E.P."	Abigail E. Post, 25 Sep 1818-26 Nov 1875
1/29/2015	18	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.55 x 0.7 x 0.2 ft	inscription illegible	
1/29/2015	19	interior: brick wall 2, under brick layer	1	marble	foot stone	0.85 x 0.5 x 0.15 ft	inscription illegible	
1/29/2015	20	interior: brick wall 2, under brick layer	1	marble	border stone	2.1 x 0.5 ft		

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/29/2015	21	interior: brick wall 2, under brick layer	1	brownstone	foot stone	2.1 x 0.75 x 0.25 ft	inscribed "H.S." at top; practice inscriptions along bottom include alphabet (A-Z) and unknown symbol	
1/29/2015	22	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.5 x 1.2 x 0.2	inscription illegible	
1/29/2015	23	interior: brick wall 2, under brick layer	1	marble	foot stone	2.15 x 0.65 x 0.2 ft	inscribed "[...] A [...]"	
1/29/2015	24	interior: brick wall 2, under brick layer	1	marble	foot stone	2.15 x 0.9 x 0.2 ft	inscribed "A.M."	Amelia Miller, 26 Aug 1820-6 Sep 1851
1/29/2015	25	interior: brick wall 2, under brick layer	1	marble	foot stone	1.6 x 0.7 x 0.25 ft		
1/29/2015	26	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.6 x 1.2 x 0.25 ft	mortar/concrete blocking probable text	
1/29/2015	27	interior: brick wall 2, under brick layer	1	marble	foot stone	1.3 x 0.5 x 0.2 ft	mortar/concrete blocking probable text	
1/29/2015	28	interior: brick wall 2, under brick layer	4	marble	foot stone (mend)		inscription illegible	
1/29/2015	29	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.85 x 0.65 x 0.25 ft	inscription illegible	
1/29/2015	30	interior: brick wall 2, under brick layer	2	marble	foot stone (mend)		inscription illegible	
1/29/2015	31	interior: brick wall 2, under brick layer	1	marble	foot stone	2 x 0.65 x 0.2 ft		
1/29/2015	32	interior: brick wall 2, under brick layer	2	marble	foot stone (mend)	1.7 x 0.45 x 0.2	inscribed "J.M.V."; fused to #33	Jane Metlar Van Deventer, unknown; Jane Maria Voorhees, 1849-1859
1/29/2015	33	interior: brick wall 2, under brick layer	1	marble	foot stone	2 x 0.6 x 0.2 ft	fused to #32	
1/29/2015	34	interior: brick wall 2, under brick layer	1	brownstone	foot stone	1.1 x 0.7 x 0.25 ft		

Appendix D. Burial Marker Fragments Identified During Archaeological Monitoring in 2015

Date Identified	Item #	Location	Quantity	Material	Type	Dimensions	Description	Possible Memorialized Individual*
1/29/2015	35	interior: brick wall 2, under brick layer	1	brownstone	foot stone	0.7 x 0.8 x 0.2 ft		
1/29/2015	36	interior: brick wall 2, under brick layer	1	marble	foot stone	1.6 x 0.85 x 0.15 ft	inscribed "[...] T."	
1/29/2015	37	interior: brick wall 2, under brick layer	1	brownstone	foot stone	0.95 x 0.8 x 0.2 ft		

* findagrave.com (First Reformed Church Cemetery) Accessed online: August 2019, <https://www.findagrave.com/cemetery/1963461/memorial-search>

Appendix E

**HUMAN REMAINS IDENTIFIED DURING ARCHAEOLOGICAL
MONITORING IN 2015**

Appendix E. Human Remains Identified During Archaeological Monitoring in 2015

Item #	Location	Quantity	Material	Type	Subtype	Status	Displaced or Interred at Time of Identification?	Additional Note
1	Trench 1	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
2	Trench 1	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
3	Trench 1	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
4	Footing 1 Context 6	1	Bone	Human	juvenile or young adult rib fragment	Deteriorated	Displaced	Located in robber trench fill of circa 1767 church.
5	Excavation Unit 5	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
6	Excavation Unit 4	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
7	Excavation Unit 4	1	Bone	Probable Human	indeterminate limb	Deteriorated	Displaced	
8	Excavation Unit 4	1	Bone	Human	adult femur	Neutral	Displaced	
9	Excavation Unit 4	1	Bone	Probable Human	indeterminate fragment	Deteriorated	Displaced	
10	Interior Area Excavation East	1	Bone	Human	indeterminate fragment	Deteriorated	Displaced	
11	Excavation Unit 4	15	Bone	Human	indeterminate fragments including possible elements of an adult radius and ulna	Very Decayed	Displaced	
12	Excavation Unit 4	2	Bone	Human	radius and ulna fragments	Deteriorated	Displaced	
13	Excavation Unit 4	6	Bone	Human	indeterminate fragments including possible tarsal fragments	Very Decayed	Displaced	
14	Excavation Unit 3	1	Bone	Probable Human	indeterminate fragment	Very Decayed	Displaced	
15	Excavation Unit 3	1	Bone	Probable Human	indeterminate fragment	Very Decayed	Displaced	
16	Excavation Unit 4	1	Bone	Human	indeterminate fragment	Very Decayed	Displaced	
17	Excavation Unit 4	1	Bone	Human	indeterminate lower limb fragment	Deteriorated	Displaced	
18	Excavation Unit 4	2	Bone	Human	juvenile tooth and pelvic fragment	Deteriorated	Displaced	
19	Excavation Unit 4	1	Bone	Human	tibia fragment	Neutral	Displaced	
20	Excavation Unit 4	1	Bone	Human	fibia fragment	Neutral	Displaced	
21	Trench 6	1	Bone	Probable Human	indeterminate fragment	Deteriorated	Displaced	
22	Excavation Unit 4	1	Bone	Human	indeterminate adult limb fragment	Deteriorated	Displaced	
23	Excavation Unit 4	1	Bone	Human	indeterminate adult limb fragment	Deteriorated	Displaced	
24	Excavation Unit 4	1	Bone	Human	probable adult fibia fragment	Neutral	Interred	Left in place as found.
25	Excavation Unit 4	1	Bone	Human	probable adult fibia fragment	Neutral	Interred	Left in place as found.
26	Excavation Unit 4	1	Bone	Human	probable adult tibia fragment	Neutral	Interred	Left in place as found.

Appendix F

**MATERIALS SAMPLED DURING ARCHAEOLOGICAL
MONITORING OF CHURCH IN 2015**

Appendix F. Materials Sampled During Archaeological Monitoring of Church Interior During 2015

Sample #	Location	Material	Color	Weight (Approximate)	Description	Additional Notes
1	Pre-Excavation: North Aisle Support Footing	Mortar	whitish tan and pink with white inclusions	624 g	mixture of sand and lime	
2	Pre-Excavation: North Column Support	Mortar	whitish tan and pink with white inclusions	54 g	mixture of sand and lime	
3	Trench 1: Lower Course of Existing Church North Wall	Mortar	pink with white inclusions	154 g	mixture of sand and lime	
4	Trench 1 (Context 4): Robber Trench Fill of 1767 Church	Mortar and Stone	pinkish tan with white and black inclusions	906 g	mixture of sand and lime	select fragments show evidence of a whitewashed surface
5	Trench 2: Lower Course (East) of Existing Church South Wall	Mortar	pinkish tan with white and black inclusions	74 g	mixture of sand and lime	
6	Trench 2: Lower Course (West) of Existing Church South Wall	Mortar	tan and brown with white inclusions	214 g	mixture of sand and lime	
7	Trench 3: Lower Course of Existing Church West Wall	Mortar	pink with white inclusions	22 g	mixture of sand and lime	
8	Trench 4: Lower Course of Existing Church North Wall	Mortar	pinkish tan with white inclusions	62 g	mixture of sand and lime	
9	Trench 4 (Context 4): Robber Trench Fill of 1767 Church	Mortar	tan and brown with white inclusions	610 g	mixture of sand, stone and lime	
10	Trench 4: Lower Course of Existing Church South Wall	Mortar	whitish tan and brown	186 g	mixture of sand	
11	Elevator Shaft Excavation (Context 4): Robber Trench Fill of 1767 Church	Charcoal and Coal Ash	black and white	86 g	n/a	
12	Footing 16 (Context 4): Truncated Buried A Horizon with Burn Layer	Charcoal and Soil	black and brown	140 g	n/a	Flotation Required to Extract Charcoal Sample
13	Trench 2 General Provenience	Charcoal	black	24 g	n/a	

Appendix G
RESUMES

RICHARD W. HUNTER
President/Principal Archaeologist, Ph.D., RPA

EDUCATION

Ph.D., Geography, Rutgers University, New Brunswick, New Jersey, 1999.
Dissertation Title: *Patterns of Mill Siting and Materials Processing: A Historical Geography of Water-Powered Industry in Central New Jersey*

M.A., Archaeological Science, University of Bradford, England, 1975

B.A., Archaeology and Geography, University of Birmingham, England, 1973

EXPERIENCE

1986-present President/Principal Archaeologist
Hunter Research, Inc., Trenton, NJ

Founder and principal stockholder of firm providing archaeological and historical research, survey, excavation, evaluation, report preparation, historic exhibit development and public outreach services in the Northeastern United States. Specific expertise in historical and industrial archaeology (mills, iron and steel manufacture, pottery manufacture), historical geography, historic landscape analysis, historic interpretive design and public outreach products. Participation in:

- Project management, budgeting and scheduling
- Proposal preparation and client negotiation
- Hiring and supervision of personnel
- Supervision of research, fieldwork, analysis and report preparation
- Historic exhibit development, popular and academic publications and public presentations

1999-2004 Faculty Member, Certificate in Historic Preservation
Office of Continuing Education, Drew University, Madison, NJ

Courses: The Role of Archaeology in Preservation
25 Years of Public Archaeology in New Jersey

1983-1986 Vice-President/Archaeologist
Heritage Studies, Inc., Princeton, NJ

Principal in charge of archaeological projects. Responsibilities included:

- Survey, excavation, analysis, and reports
- Client solicitation, negotiation, and liaison
- Project planning, budgeting, and scheduling
- Recruitment and supervision of personnel

1981-1983 Principal Archaeologist
Cultural Resource Group, Louis Berger & Associates, Inc., East Orange, NJ

Directed historical and industrial archaeological work on major cultural resource surveys and mitigation projects in the Mid-Atlantic region. Primary responsibility for report preparation and editing.

- 1979-1981 Archaeological Consultant, Hopewell, NJ
- 1978-1981 Adjunct Assistant Professor, Department of Classics and Archaeology, Douglass College, Rutgers University, NJ
- 1978-1979 Research Editor
Arete Publishing Company, Princeton, NJ
- Prepared and edited archaeological, anthropological, and geographical encyclopedia entries (*Academic American Encyclopedia*, 1980).
- 1974-1977 Archaeological Field Officer
Northampton Development Corporation, Northampton, England
- Supervised archaeological salvage projects executed prior to development of the medieval town of Northampton (pop. 230,000).
- Experience included:
- Monitoring of construction activity
 - Supervision of large scale urban excavations
 - Processing of stratigraphic data and artifacts
 - Preparation of publication materials
- 1969-1970 Research Assistant
Department of Planning and Transportation, Greater London Council

SPECIAL SKILLS AND INTERESTS

- water-powered mill sites
- canals and urban water powers
- iron and steel manufacture
- pottery manufacture
- historic cartography
- scientific methods in archaeology
- historic sites interpretation and public outreach

SELECTED PUBLICATIONS

"New York's Urban Archaeology. The Forts Landscape Reconstruction Project: Central Park's Revolutionary War Forts." *Archaeological Institute of America, New York Society News*, Winter 2015:6-8.

Sartori to Sacred Heart: Early Catholic Trenton. Sacred Heart Church [2014] (with Patrick Harshbarger).

"Historical Archaeology in Trenton: A Thirty-Year Retrospective." In *Historical Archaeology of the Delaware Valley, 1600-1850*, edited by Richard Veit and David Orr. University of Tennessee Press, Knoxville, Tennessee [2013] (with Ian Burrow).

"A Sugar Bowl of William Young & Sons or William Young's Sons." *Trenton Potteries* 13 (1):1-3 [2013].

"Internal Oxidation of Cast Iron Artifacts from an 18th-century Steel Cementation Furnace." *Journal of Archaeological Science* XXX, 1-8 [2012] (with Colin Thomas and Robert Gordon).

"Steel Away: the Trenton Steel Works and the Struggle for American Manufacturing Independence." In *Footprints of Industry: Papers from the 300th Anniversary Conference at Coalbrookdale, 3-7 June 2009*, edited by Paul Belford, Marilyn Palmer and Roger White. *BAR British Series* 523 [2010] (with Ian Burrow).

"Early Milling and Waterpower." In *Mapping New Jersey: An Evolving Landscape*, edited by Maxine N. Lurie and Peter O. Wacker, pp. 170-179. Rutgers University Press [2009].

"On the Eagle's Wings: Textiles, Trenton, Textiles, and a First Taste of the Industrial Revolution." *New Jersey History* 124, Number 1, 57-98 [2009] (with Nadine Sergejeff and Damon Tvaryanas).

"The Historical Geography and Archaeology of the Revolutionary War in New Jersey." In *New Jersey in the American Revolution*, edited by Barbara J. Mitnick, pp.165-193. Rutgers University Press [2005] (with Ian C.G. Burrow).

"Lenox Factory Buildings Demolished." *Trenton Potteries* 6 (2/3):1-9 [2005].

Fish and Ships: Lambertton, the Port of Trenton. New Jersey Department of Transportation and Federal Highway Administration [2005] (28-page booklet).

Power to the City: The Trenton Water Power. New Jersey Department of Transportation and Federal Highway Administration [2005] (24-page booklet).

Rolling Rails by the River: Iron and Steel Fabrication in South Trenton. New Jersey Department of Transportation and Federal Highway Administration [2005] (24-page booklet).

Quakers, Warriors, and Capitalists: Riverview Cemetery and Trenton's Dead. New Jersey Department of Transportation and Federal Highway Administration [2005] (24-page booklet) (with Charles H. Ashton).

"Keeping the Public in Public Archaeology." In: *Historic Preservation Bulletin*, pp. 6-9. New Jersey Department of Environmental Protection, Division of Parks and Forestry, Historic Preservation Office [2004].

"A Coxon Waster Dump of the Mid-1860s, Sampled in Trenton, New Jersey." In: *Ceramics in America*, edited by Robert Hunter, pp. 241-244. University Press of New England [2003] (with William B. Liebeknecht and Rebecca White).

"The Richards Face – Shades of an Eighteenth-Century American Bellarmine." In: *Ceramics in America*, edited by Robert Hunter, pp. 259-261. University Press of New England [2003] (with William B. Liebeknecht).

"The Pottery Decorating Shop of the Mayer Arsenal Pottery Company." *Trenton Potteries* 4(2):1-7 [2003].

"Minutes of the Potters Union (Part 2)." *Trenton Potteries* 4(1):1-5 [2003].

"Minutes of the Potters Union (Part I)." *Trenton Potteries* 3(4):1-5 [2002].

"Eighteenth-Century Stoneware Kiln of William Richards Found on the Lambertton Waterfront, Trenton, New Jersey." In: *Ceramics in America*, edited by Robert Hunter, pp. 239-243. University Press of New England [2001].

"William Richards' Stoneware Pottery Discovered!" *Trenton Potteries* 1(3):1-3 [2000]. Reprinted in *Bulletin of the Archaeological Society of New Jersey* 59:71-73 [2004].

"Trenton Re-Makes: Reviving the City by the Falls of the Delaware." *Preservation Perspective* XVIII (2): 1, 3-5 [1999]

"Mitigating Effects on an Industrial Pottery." *CRM* 21(9):25-26 [1998] (with Patricia Madrigal).

From Teacups to Toilets: A Century of Industrial Pottery in Trenton, Circa 1850 to 1940, Teachers Guide sponsored by the New Jersey Department of Transportation, 1997 (with Patricia Madrigal and Wilson Creative Marketing).

"Pretty Village to Urban Place: 18th Century Trenton and Its Archaeology." *New Jersey History*, Volume 114, Numbers 3-4, 32-52 [Fall/Winter 1996] (with Ian Burrow).

Hopewell: A Historical Geography. Township of Hopewell [1991] (with Richard L. Porter).

"Contracting Archaeology? Cultural Resource Management in New Jersey, U.S.A." *The Field Archaeologist* (Journal of the Institute of Field Archaeologists) 12, 194-200 [March 1990] (with Ian Burrow).

"American Steel in the Colonial Period: Trenton's Role in a 'Neglected' Industry." In *Canal History and Technology Proceedings IX*, 83-118 [1990] (with Richard L. Porter).

"The Demise of Traditional Pottery Manufacture on Sourland Mountain, New Jersey, during the Industrial Revolution." Ch. 13 in *Domestic Potters of the Northeastern United States, 1625-1850*. Studies in Historical Archaeology, Academic Press [1985].

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists (RPA) [formerly Society of Professional Archeologists] (accredited 1979; certification in field research, collections research, theoretical or archival research)

Preservation New Jersey (Board Member, 1994 - 2003)

New Jersey State Historic Sites Review Board (Member, 1983 -1993)

Society for Historical Archaeology

Society for Industrial Archaeology

Society for Post-Medieval Archaeology

Historical Metallurgical Society

Council for Northeast Historical Archaeology

Professional Archaeologists of New York City

Archaeological Society of New Jersey (Life Member; Fellow, 2011)

OTHER AFFILIATIONS

Mercer County Cultural & Heritage Commission (Commissioner, 2011 – present)

Trenton Downtown Association (Board Member, 1998 – present; Board Chair, 2007 - 2008)

Trenton Museum Society, (Trustee, 2011 – present)

Hopewell Township Historic Preservation Commission (Member, 1998 - 2006; Chair 2003 - 2004)

Hopewell Valley Historical Society (Trustee, 2014 – present)

JOSHUA J. BUTCHKO
Principal Investigator/Laboratory Supervisor, M.A., RPA

EDUCATION

M.A. Public History, Rutgers-The State University of New Jersey, Camden, NJ, 2012

B.A. Anthropology and Classics, Drew University, Madison, NJ, 2003

EXPERIENCE

2012-present Principal Investigator and Laboratory Supervisor
Hunter Research, Inc., Trenton, NJ

Technical and managerial responsibilities for survey, evaluation and mitigation of selected archaeological projects. Technical and managerial responsibility for archaeological collections including laboratory, curatorial, and transport components of all archaeological projects. Responsible for company safety policy, training and development as Company Safety Officer. Participation in:

- overall site direction and day-to-day management of Archaeological Monitoring Programs and Phase I, II and III Archaeological Investigations
- coordination and management of public archaeology programs
- development and implementation of research, excavation and analysis strategies for prehistoric and historic archaeological sites
- report writing and proposal preparation
- management of laboratory operations and supervision of personnel
- preparation and computerization of artifact inventories, data and analysis
- assistance in artifact display assembly

2008-2012 Laboratory Supervisor and Senior Archaeologist
Hunter Research, Inc., Trenton, NJ

Technical and managerial responsibilities for laboratory components of archaeological projects. Participation in:

- management of laboratory operations
- supervision of personnel
- management of field equipment and site logistics
- computerization of artifact data
- historic ceramic analysis
- preparation of artifact inventories
- writing artifact section of reports

2006-2008 Senior Archaeologist
Hunter Research, Inc., Trenton, NJ

Technical and supervisory responsibilities for selected field, laboratory, drafting operations and report preparation. Participation in:

- on-site project management
- survey and excavation
- stratigraphic and artifact analysis
- supervision of personnel
- field photography
- report preparation
- supervision of mechanically assisted excavation
- guidance and instruction at on-site public archaeology service days

2003-2006 Field Assistant
Hunter Research, Inc., Trenton, NJ

Worked on various archaeological field projects in New Jersey, Delaware, New York, Pennsylvania, and Washington, DC. Participation in:

- excavation and survey
- field recording
- laboratory processing of artifacts

2003 Volunteer
Monmouth University Archaeological Field School

Technical and supervisory responsibilities for selected field operations at the Abraham Staats House in Bound Brook, NJ. Participation in:

- survey and excavation
- stratigraphic and artifact analysis

2002 Field Assistant
Drew University Archaeological Field School in Ecuador

Worked at multiple sites in the Los Congrejitos area. Participation in:

- survey and excavation
- stratigraphic and artifact analysis
- field photography
- artifact processing and analysis

SAMPLE OF PRESENTATIONS/PAPERS

Eastern States Archaeological Federation, 81st Annual Conference, Solomons MD, October 2014
Commodore Stockton's Morven Greenhouse: Form and Function c. 1852 to c.1890

Society for Historical Archaeology, 49th Annual Conference, Washington D.C. January 2016
Examining Cemetery Investigations at the First Presbyterian Church of Elizabeth and First Reformed Dutch Church of New Brunswick, New Jersey: A Discussion of Remembrance and Regulation

CERTIFICATIONS

HAZWOPER 40 Hour Certification
HAZWOPER 8 Hour Supervisor Training
HAZWOPER 8 Hour Confined Space Entrant Certification
NJ DEP SHPO 7 Hour CRM Essentials Training Program

AFFILIATIONS

Registered Professional Archaeologist (RPA)
National Council on Public History (NCPH)
Society for Historical Archaeology (SHA)
Archaeological Society of New Jersey (ASNJ)

Appendix H

**NEW JERSEY HISTORIC PRESERVATION OFFICE
BIBLIOGRAPHIC ABSTRACT**

APPENDIX H
New Jersey Historic Preservation Office
Bibliographic Abstract

HUNTER RESEARCH, INC.

Location: First Reformed Church, City of New Brunswick, Middlesex County, NJ

Drainage Basin: Raritan River

U.S.G.S. Quadrangle: New Brunswick, N. J.

Project: Archaeological Monitoring, First Reformed Church of New Brunswick, City of New Brunswick, Middlesex County, New Jersey

Level of Survey: Monitoring

Cultural Resources: First Reformed Church

Appendix I

PROJECT ADMINISTRATIVE DATA

APPENDIX I

Project Administrative Data

HUNTER RESEARCH, INC.

PROJECT SUMMARY

Project Name: Archaeological Monitoring, First Reformed Church of New Brunswick, City of New Brunswick, Middlesex County, New Jersey

Level of Survey: Monitoring

HRI Project Reference: 15001/15004/19031

Date of Report: August 2019

Client: United Way of Bergen County and Town Clock Development Corp.

Prime: N/A

Review Agency: NJHPO

Agency Reference: N/A

Artifacts/Records Deposited: Hunter Research, Inc.

PROJECT CHRONOLOGY

Date of Contract Award: January 2015

Notice to Proceed: January 2015

Background Research: N/A

Fieldwork: January - October 2015

Analysis: February - October 2015

Report Written: June - August 2019

PROJECT PERSONNEL

Principal Investigator(s): Richard W. Hunter, Ian Burrow

Background Researcher(s): N/A

Field Supervisor(s): Joshua Butchko

Field Assistant(s): Jamie Ancheta, Elizabeth Cottrell, Jack Cresson, William Liebeknecht, Matthew Pihokker

Analyst(s): Jamie Ancheta, Dorothy Both, Joshua Butchko

Draftperson(s): Evan Mydlowski

Report Author(s): Richard W. Hunter, Joshua Butchko

