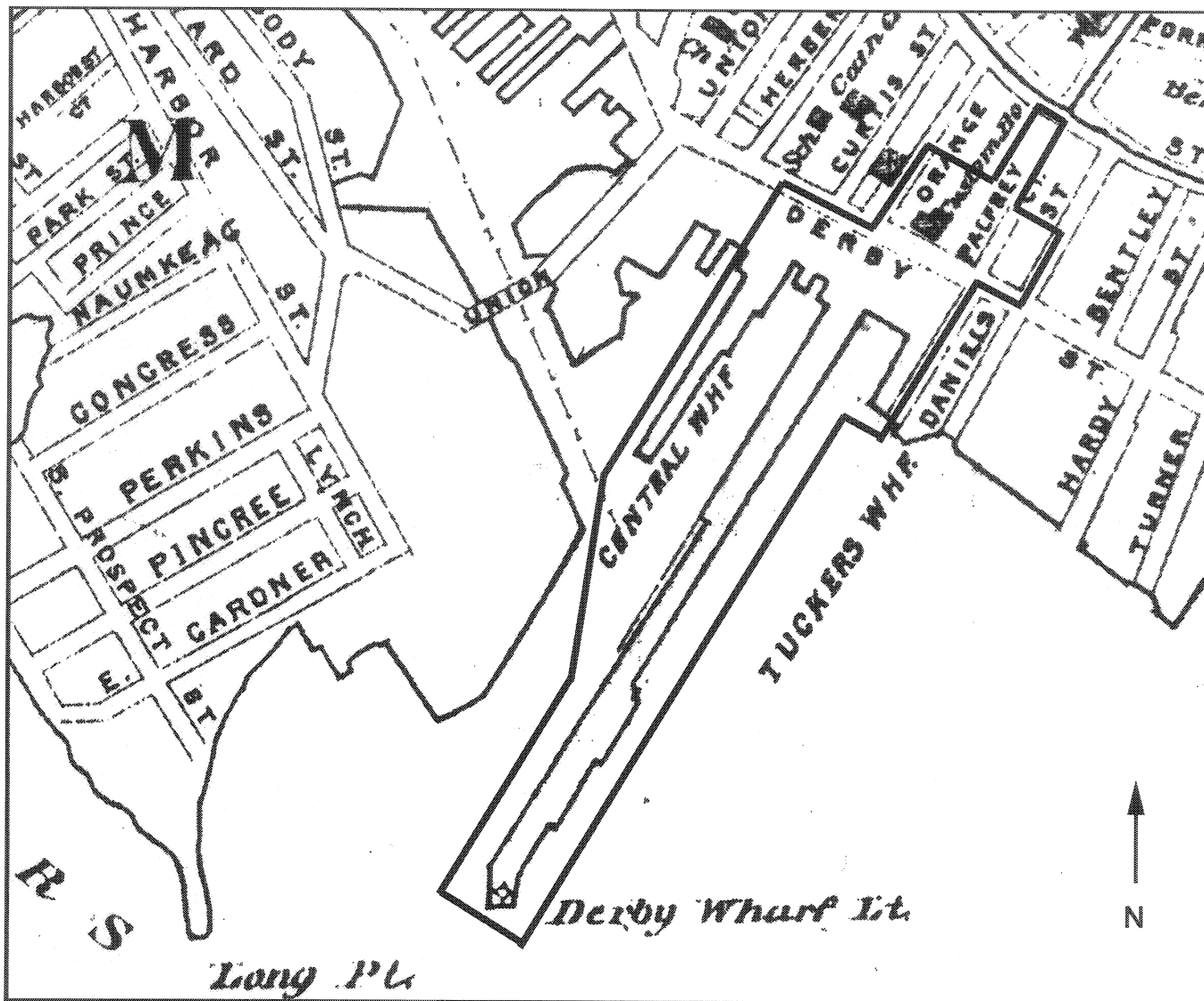


ARCHEOLOGICAL OVERVIEW AND ASSESSMENT  
OF THE  
SALEM MARITIME NATIONAL HISTORIC SITE  
SALEM, MASSACHUSETTS  
VOLUME I



By

J.N. Leith Smith, Jack Gary, Gregory Dubell, George Schwartz, Starla Lane

Center for Cultural and Environmental History  
University of Massachusetts Boston  
Cultural Resources Management Study No. 16

August 2005



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ARCHEOLOGICAL OVERVIEW AND ASSESSMENT  
OF THE  
SALEM MARITIME NATIONAL HISTORIC SITE  
SALEM, MASSACHUSETTS  
Volume I

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## ABSTRACT

The Salem Maritime National Historical Site was created in 1937 as the first park to be established in the Nation's federal park system administered by the National Park Service. Salem played a primary role in the American international maritime trade from the colonial period to the mid nineteenth century, and it is this legacy that the park seeks to interpret and preserve. The site today encompasses nearly nine acres bordering on the Salem waterfront that contain a variety of historic structures, including seventeenth- through nineteenth-century domestic dwellings, wharves and warehouses, as well as the federal Custom House and associated Public Stores, all associated with the town's contribution to a burgeoning world economy and growing nation.

This Archaeological Overview and Assessment is part of a system-wide inventory of archaeological assets on public lands. As such, the goal of this work was to identify all known and potential subsurface cultural remains and to make recommendations for their long-term preservation and management. Intensive documentary research succeeded in identifying a total of 68 known and potential archaeological sites within the park. Two of these are associated with Native American occupation and consist of a shell deposit under the Narbonne House ell, and a lithic scatter adjacent to the Public Stores. Archaeological assets associated with the historic period include a wide array of structures that were constructed and demolished

over the course of the seventeenth through twentieth centuries. These subsurface assets compliment those existing resources due to the wide range of domestic, commercial, institutional, civic and municipal activities with which they were associated.

Archaeological investigations within the park have focused on identifying aspects of seventeenth century domestic life at the Narbonne House and on identifying evidence of eighteenth- and nineteenth-century maritime activities and construction details in the context of Derby and Central Wharves during undertakings associated with installation of utilities and wharf repair and maintenance. These investigations have revealed some portions of the park to maintain a high level of integrity and preservation, while in many other areas resource conditions are unknown. Identification of archaeological resources through intensive (locational) surveys are recommended to be performed on a case-by-case basis prior to proposed undertakings, taking into account the present level of knowledge of expected resources and the potential for previous disturbances. Planning for future undertakings should, therefore, include such investigations in project scopes of work. In addition, small-scale undertakings should formally document the discovery of any cultural resources to aid with the overall knowledge of the park's assets and assist with future management.

## MANAGEMENT SUMMARY

The maintenance and preservation of the nation's national parks is a mandate of the National Park Service. This protection extends to buried cultural resources that have the potential to provide information important to each park's prehistory and history. The identification of such resources has become a priority for long-range planning and management. A systematic means of identifying known and potential archaeological sites was established by the Systemwide Archaeological Inventory Program. Inventory of archaeological sites is achieved by an Archaeological Overview and Assessment that also provides recommendations for site management. The assessment of the Salem Maritime National Historic Site identified 68 known and potential archaeological sites. Two of these are associated with occupation by Native Americans, while the remainder are associated with the seventeenth- through early twentieth-century domestic, maritime, industrial, commercial and federal use of the property. Significant landscape changes were found to have occurred in some portions of the park characterized by a pattern of construction, demolition and reconstruction of structures north of Derby Street, while the waterfront area to the south was first filled to create wharves and then followed a pattern similar to that of the north area. Extensive archaeological investigations, particularly of Derby and Central Wharves, have shown these structures and associ-

ated archaeological deposits to be relatively intact, suggesting this area maintains a high potential for the presence of significant archaeological resources. Less is known of the archaeological potential of the north half of the park that generally consists of landscaped house lots.

It is recommended that an intensive (locational) archaeological survey be conducted in much of the north half of the park to identify which areas are archaeologically sensitive. This work can be preceded by remote sensing of certain areas. No additional program to identify resources is recommended for the south half of the park due to extensive historic documentation and past archaeological investigations. In both areas, however, it is recommended that proposed undertakings be preceded by archaeological testing or that such work is monitored by an archaeologist to identify potentially intact cultural deposits and to help minimize their disturbance. Specific tools to assist with site management include the Archaeological Site Recording and Management Information System (ASMIS) database of archaeological sites and a Geographic Information Systems (GIS) database that displays the locations of all known structures in the park as well as locations of previous archaeological testing. Both of these databases should be periodically updated as part of routine maintenance and preservation of buried cultural resources.

## ACKNOWLEDGMENTS

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wish to thank them for many of the illustrations used in this report. The GIS component could not have been completed without the support of the Department of Earth and Geographic Sciences at the University of Massachusetts Boston, and particularly Bill Mahoney who provided access to large format scanning. Eric Johnson at the Massachusetts Historical Commission provided helpful suggestions regarding his experience with production of O&As. Thanks also goes to Stephen Mrozowski and David Landon for tracking report progress and providing editorial and production assistance.

## I. INTRODUCTION

### A. Project Overview and Objectives

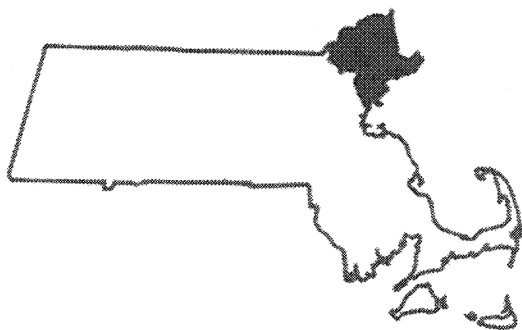
This report is an Archaeological Overview and Assessment of the Salem Maritime National Historic Site (SAMA) located on the waterfront of Salem Harbor in Essex County in northeastern Massachusetts (Fig. I.1). Salem Maritime was the first National Historic Site to be established by the National Park Service (1938) to commemorate the importance of Salem in the maritime history of New England and of the United States in general. The park is composed of fourteen historic structures that include four wharves and nine buildings as well as an on-site Orientation Center. A separate Visitor Center is located in downtown Salem. The site consists of nearly nine acres with a central thoroughfare (Derby Street) that divides the park into a north half characterized by Federal Style domestic dwellings and the US Custom House with landscaped yards, and a south half dominated by the waterfront and wharves. This area is roughly bounded by nearly 500 ft. of Salem Harbor shoreline on the south, Palfrey Court on the east, and Orange Street and several lot lines that extend almost 300 ft north-west of Derby Street on the west. Extending beyond this area is St. Joseph Hall on the east side of Palfrey Court and the Lot of the Narbonne House that stretches from the rear of the Hawkes House lot to Essex Street. Shoreline footage is expanded considerably by Central, Hatch's, Derby and Tucker's Wharves (Fig. I.2). Public interpretation at the site focuses on the role of Salem merchants in the development of American international maritime trade from the colonial period to the mid-nineteenth century. Additional themes include the early settlement of the United States, its emergence as a maritime power, and its subsequent industrial development.

In response to concerns over the loss of the Nation's underground cultural heritage, the National Park Service established the Systemwide Archaeological Inventory Program in 1992 to document and evaluate archaeological resources in the National Park system. An outgrowth of

this effort was the creation of Archaeological Overview and Assessment reports to review and summarize existing and potential archaeological data. The purpose of these works is to minimize the chance for negative impacts on buried cultural resources by natural weathering and during park construction and maintenance activities. As such, the Overview and Assessment serves as an important document for park maintenance and long-range planning (NPS-28 1997).

### B. Research Methodology

Overview and Assessments (O&A) generally rely on several sources of data including primary and secondary historic documentation, archaeological reports and to a lesser extent oral history provided by Park personnel. Background research commenced with a meeting on September 14, 2004 at SAMA with park curator, David Kayser and historian, John Frayler, to learn of archival sources available at the Park, including maps and plans that were necessary for the GIS component of the project as well as to identify archaeological investigations including isolated finds that may or may not be documented. An additional purpose of the meeting was to develop an understanding of how the O&A could best be structured to serve future needs of the Park. Because the Park was the first national historic site in the system to be established, and because it has long maintained a resident historian, an extensive and well-organized library of sources relating to Salem and New England seafaring is present on site. The library also maintains a wide assortment of site maps and plans depicting historic features and municipal utilities. Commencement of background research for the project revealed a plethora of available information. The primary task, it was quickly determined, would be to sort out what sources would be most informative for the identification of buried cultural resources. A number of archaeological investigations had been carried out in the park and most of these were well documented. A few small projects, however, had been conducted internally and were not widely reported. The main reference used by Park officials to predict the presence of cultural resources is the historical



# Essex County

Figure I.1. Project Area Location in Southern Essex County, Massachusetts.



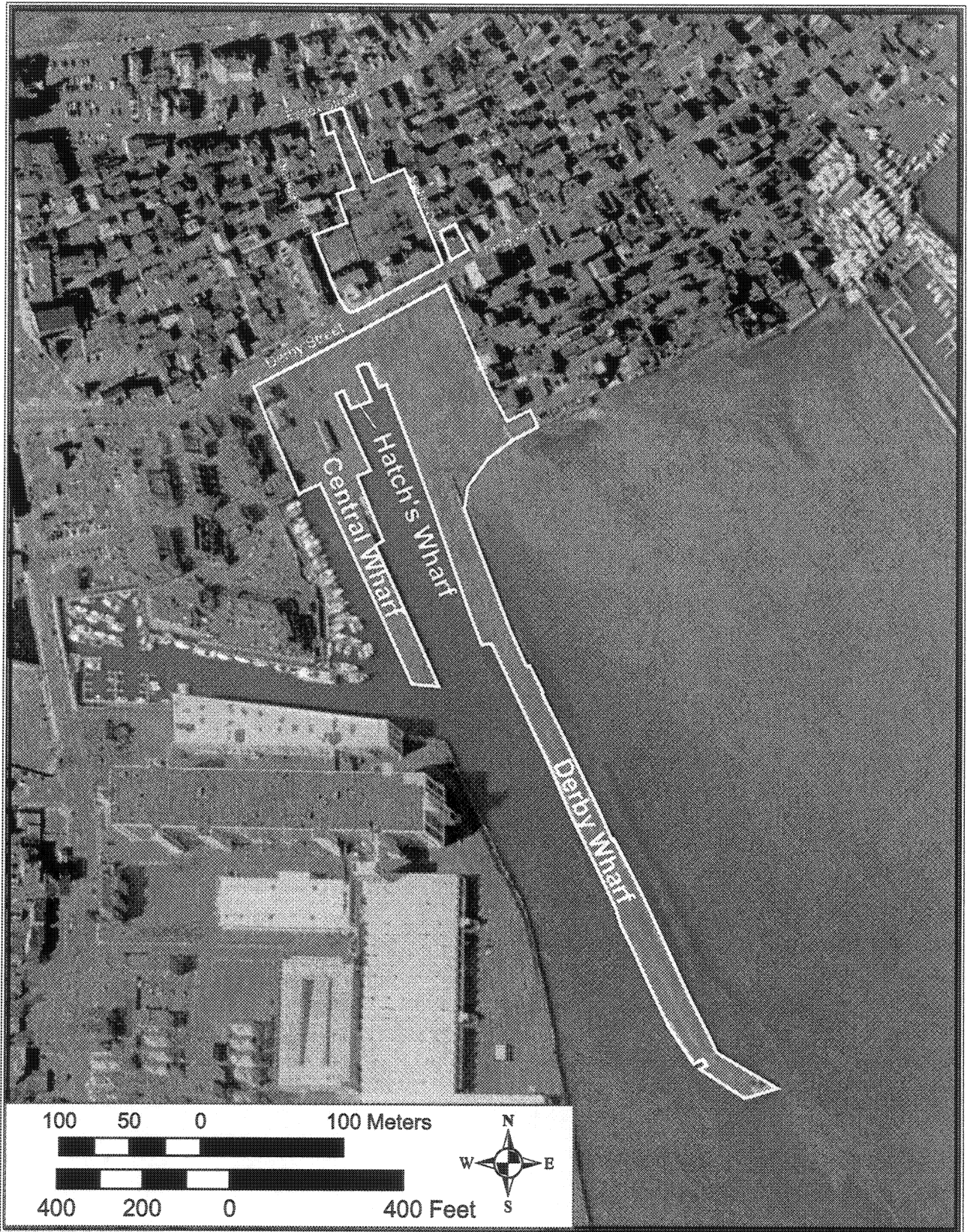


Figure I.2. Salem Maritime National Historic Site Boundaries Depicted on 2001 Salem Orthophoto.

research report prepared specifically for SAMA between 1990 and 91 (Friedlander et al. 1991), known affectionately as the “Amy Report.” While this work provides a thorough summation of the site’s history, associated archaeological remains were not included in the study. In addition the utility of the report, while extremely well presented, was not organized in a way that allowed for quick referencing of particular park localities.

### **C. Research Sources**

By its very nature the Overview and Assessment makes use of all available sources to provide a comprehensive understanding of SAMA’s past. Identification and assessment of known and potential archaeological remains, however, necessitated a concentration on sources that were directly applicable to this task. As a result, reports on past archaeological activities provided primary source material with maps and plans playing a key role. Additional sources of information derived from discussions with site curator, Dave Kayser, and historian John Frayler.

#### **1. Historic Documentation**

The background history of Salem, with particular focus on Derby Wharf and the Custom House area of the waterfront, has been documented by a number of local secondary histories that provided general background information. Many other sources have concentrated on development of the region’s maritime trade. The first extensive historical studies of the Park were conducted by historian, Charles W. Snell, while working for Historic Preservation-East, Denver Service Center, NPS. Along with detailed investigations of individual properties between 1973 and 1977, Snell created a set of maps to illustrate the physical development of SAMA as part of the request outlined in Development/Study Package Proposal No. 120, Account No. 2411-1841. It is these maps and historic research that served as the basis of the *Historic Research 1626-1990* report produced by Friedlander et al. in 1991. The combined work of Snell and Friedlander et al. in particular, left little need for additional research *per*

*se*, but rather required a translation of this data into archaeological terms. An archaeological survey of the City of Salem conducted by Morzowski et al. (1988) provided additional useful background information, but much of this applied to the city as a whole with little specific focus on the park. The study of alternatives, focusing on SAMA and its role in the broader Essex County tourist industry, was produced by the NPS in 1990. The extensive library and Special Collections at the Peabody Essex Museum in Salem served as the primary source for such materials. Additional sources included Salem State College, the SAMA library and archival collections located in the Custom House and the Healy Library at the University of Massachusetts Boston.

#### **2. Archaeological Investigations Conducted at SAMA**

Compilation of archaeological source materials amounted to seven reports associated with Central and Derby Wharves. Three additional sources reported on investigations of domestic resources consisting of the Narbonne House lot and excavations at the original site of the Orientation Center that was moved to the park from Front Street in downtown Salem. Documentation of archaeological resources also derived from ‘in-house’ reports of small undertakings on park property. Copies of these reports were obtained from the Massachusetts Historical Commission (MHC), The Peabody Essex Museum, Salem State College, the Center for Cultural and Environmental History at UMass, Boston and from the SAMA library and archives.

#### **3. Archaeological Investigations Associated with Other Salem Sites**

Archaeological investigations conducted outside of SAMA were also consulted to provide important contextual background information. These included reports and archaeological site files housed at the MHC.

#### **4. Maps and Plans**

An important component of the O&A was the

creation of a GIS database derived from cartographic renderings of the site. The land use history was gleaned from several sources including the Snell maps (1977) that track property transfers through time within the park, maps produced by Friedlander et al. (1991) and an assortment of utility maps in the SAMA archives.

## 5. SAMA Walkover

Several pedestrian walkovers (reconnaissance survey) were performed in the park initially to achieve general familiarity with the site including its existing structures, yard areas, walks and wharves. Additional walkovers were conducted to answer specific questions that arose during the project. These included the nature of ground cover overlying specific sites, the locations of utilities that were not present on cartographic sources and the overall condition of various archaeological sites. GPS coordinates for specific resources were also collected during the site visits.

### D. Predictive Models for Archaeological Site Location

Development of predictive models for the location of archaeological sites is predicated upon a number of factors including known site locations and a general sense of past landscape use and its level of preservation. While SAMA is ideally situated for both prehistoric and historic occupation, much of the landscape within the Park has been altered by historic period construction of roads, structures and utilities. Landscaping activities have caused further disturbance. In addition, the original location of the Salem Harbor shoreline at present Derby Street reveals a significant amount of fill has resulted in the creation of made land that is incorporated in the construction of the wharves and has created a more recent shoreline some 410 ft (125 m) south of Derby Street. Thus, potential cultural resources from this southern portion of the Park will consist of evidence of inundated Native American occupation or early historic period use of the waterfront as well as material associated with the filling or post filling of the area. The fast land located north of Derby

Street, by default, has a greater probability for the presence of *in situ* Native cultural remains and historic material that predates, is contemporary with and closely post dates the filling of the waterfront. Once waterfront filling was completed, the potential for site presence evens out between the north and south portions of the park.

## 1. Native American Sites

Evidence of Native American prehistoric occupation has been identified in New England in many types of settings, but such sites are most often found in particular environmental contexts that share a number of characteristics (Funk 1972; Root 1978; Thorbahn et al. 1980; McManamon 1984; Mulholland 1984; Thorbahn 1988, 1984; Nicholas 1988, 1990). Models of archaeological potential take these common characteristics into account to predict the location of prehistoric resources (Dincauze 1974; Hoffman 1985; Kenyon and McDowell 1983; Ritchie 1983). These models are generally based on three variables: topography, soil type and proximity to a source of fresh water. Variables offering the greatest potential for prehistoric settlement consist of flat to gently sloped topography, well-drained sandy soil, and a distance of under 300 m (1,000 ft) to fresh water. Localities of medium to low potential are, therefore, greater than 300 m (1,000 ft) from fresh water and/or have poorly drained or rocky soils on moderate to steep slopes. Factors that hold lesser importance, but nevertheless can contribute to site location include proximity to additional resources such as hunting grounds, fishing sites and seasonal food gathering localities, a south facing exposure for cold season occupation, access to lithic material for tool manufacture and even to clay for pottery production. Access to transportation routes in the form of bays and rivers can also be influential.

The combination of these factors provides a framework within which prehistoric settlement has been analyzed. Findings to date suggest that Paleoindian and Early Archaic sites are frequently located around glacial lake margins. These sites are usually small and often represent single



episodes or short-term occupations involving hunting and gathering as well as the processing of natural resources. Sites associated with the Middle and Late Archaic periods tend to be located on the banks of major rivers such as the Assabet and Merrimack, and on the edges of upland wetlands and streams. The upland interior sites tend to be small, probably associated with exploitation of specific resources. Larger, repeatedly used sites tend to be present next to large wetlands and at fords or rapids in rivers to take advantage of anadromous fish runs. Occupation associated with the Late Archaic and Woodland periods is characterized by a trend toward exploitation of major river estuaries and coastal environments. In time this adaptation came to be characterized by long-term seasonal occupation of large settlements accompanied by short-term occupation of camps associated with seasonally available inland plant and animal resources potentially collected by family-based groups. Those sites that offered a southern exposure as protection from winter weather and consistent access to food sources came to be occupied throughout the year.

These generalized patterns suggest that Native occupation of the Salem coast is most likely to have occurred during the late Archaic and Woodland periods. Primary food sources would have included fish and shellfish from estuaries and deep water marine environments, migratory birds, locally available small and large game and locally available plant foods including nuts and cultivated products as the Woodland period progressed. The gently sloped and reasonably well-drained soils coupled with a southeastern exposure of the SAMA setting suggests a high probability for Native occupation of the area. The only potentially limiting factor is the availability of fresh water at the site.

An assessment of known Native American archaeological sites in harbor-front contexts (see Chapter 3) suggests a high probability for the presence of Woodland period shell middens (Salem Neck), Archaic and Woodland habitation

(Salem Neck, House of the Seven Gables property, Palmer Cove area, Pickering Point), and Woodland or Contact Period burials (Palmer Cove area). The fact that much of the original ground surface within the Park has been disturbed significantly reduces the probability of intact cultural remains associated with Native occupation, but does not negate the potential for their presence in undisturbed or minimally disturbed contexts. Of the two Native American sites identified at SAMA, one consists of a small shell midden with charcoal discovered under the ell of the Narbonne House during renovation work and archaeological investigations (Moran et al. 1982). The cultural/temporal affiliation of this feature could not be determined. The second site consists of lithic debitage found during removal of subterranean oil tanks north of the Public Stores (Schley 1993). Material types and further descriptions are not provided by the report.

## **2. Historic Sites**

The potential for historic archaeological sites is high given the extensive documentary record and intact resources that exist on the site. The same characteristics that made the site potentially attractive to Native occupants were also attractive to Europeans. The advantage that Europeans maintained in occupying such landscapes was the creation of fresh water sources through the excavation of wells. Thus, a factor that may have inhibited Native occupation was not necessarily an issue for subsequent occupants for whom fresh ground water was available. Previous research using primary and secondary documents including maps and deeds, particularly those produced by Snell (1977) and later by Friedlander et al. (1991), traces the occupation history of the Park spanning the eighteenth, nineteenth and early twentieth centuries. The development and growth of the waterfront and adjacent neighborhood is characterized by a pattern of mixed domestic, mercantile, craft, retail and storage usage through time. The overarching use of the landscape has been in support of seafaring activities.

## **E. Preparation of Geographic Information Systems (GIS) Data**

A comprehensive Geographic Information System was constructed for the SAMA Overview and Assessment to facilitate the management of archaeological and historic resources associated with the property. In addition to the series of maps produced for this report, maps produced by Friedlander (1991) that were based on the work of Snell (1974) have allowed the research team to design a GIS that allows the user to reconstruct the wharves and building layout on the property over an almost 200 year time-span. Due to the high number and frequency of landscape changes that occurred on the property, the buildings have been organized by function in 20-, 40-, and 50-year increments. Similarly, several layers have been constructed in the same manner for the changing wharves. This organization will allow the user to easily determine temporal association of structures or deposits that might be impacted by future construction or archaeological work as well as reconstruct the physical layout of various time periods in the property's history. GIS layers also include all currently identified utilities (electric, water, sewer, telephone, gas, oil), archaeological investigations (shovel test pits, excavations, remote sensing), and transportation-related features (parking lots, sidewalks, removed rail lines).

The GIS layers conform to the National Park Service GIS contract specifications in which all files are georeferenced to Universal Transverse Mercator (UTM) Zone 19N and reference North American Datum 1983 (NAD83). All maps and themes are displayed in the metric scale. All GIS layers were constructed in the ArcGIS 9.0 environment. After edits and revisions ArcINFO shapefiles were converted to ArchINFO coverages. All files open in ArcGIS 8.3 and 9.0. Metadata conforms to Federal Geographic Data Committee Standards (FGDC). Staff from the Geographic Information Technology Program at the University of Massachusetts, Boston provided scanning and technical assistance.

## **1. Preparation and Description of the GIS Layers**

No GIS compatible digitized maps of SAMA had been produced prior to the construction of this GIS with the exception of a general outline of Park boundaries. The construction of shapefiles has relied solely on georeferencing paper maps to the 2001 orthophoto of the City of Salem (available from the Massachusetts Geographic Information System web site – [www.mass.gov/mgis/](http://www.mass.gov/mgis/) orthophoto no. 253918.sid. In order to create a comprehensive GIS, maps contained in the SAMA archives, excavation reports, and historical overviews were first examined for their utility. Select maps were transported to CCEH and scanned using both a desktop and a large format scanner. After converting paper copies into tagged image file format (.TIFF) they were georeferenced to the orthophoto. After georeferencing, each feature was digitized and edited as a shapefile.

## **2. Structures**

A series of ten base maps produced by Friedlander et al. (1991) for her historical research report for SAMA provided the template for the construction of the lot and building shapefiles. The historical base maps provided the locations of structures and other features in the period 1764 to 1991. These maps were georeferenced to the 2001 orthophoto using the most consistent points such as the corners of buildings, sidewalks, and the edges or corners of wharves. This process required us to work backward in time, georeferencing the most recent maps to buildings and wharves visible as of 2001. Buildings with consistent locations, such as the Custom House and the Hawkes House, allowed us to keep spatial continuity as we georeferenced maps displaying earlier layouts of the property with structures no longer standing or wharf boundaries that have changed. Buildings were then digitized and converted into coverages according to their function and temporal affiliation. Coverages that represent historic and standing structures include:

*Commercial\_Service* – This folder contains poly-

gon coverages representing structures related to activities associated with the wharves such as warehouses, storehouses, coal sheds, office buildings, and shops.

*Industrial* – This folder contains a single polygon coverage related to historical industrial activities on the SAMA property. At present the only building represented is a sausage factory from the 20<sup>th</sup> century.

*Piers\_Platforms* – This folder contains polygon coverages representing historic wooden piers or platforms attached to the wharves.

*Public\_Government* – This folder contains polygon coverages related to government buildings such as the Scale House.

*Rails* – This folder contains polyline coverages representing both marine rail and surface rail that used to run along Derby Street and the wharves.

*Residential* – This folder contains polygon coverages depicting private residences on SAMA property.

*Social\_Philanthropic* – This folder contains polygon coverages primarily related to St. Joseph Hall

*Wharves* – This folder provides a series of coverages depicting wharf boundaries, additions, and changes over the three centuries.

*building\_stan* – This polygon coverage represents all currently standing structures on SAMA property.

*parkinglots* – This polygon coverage is a representation of all the parking facilities that have been located on the property from 1938 to the present.

*roads* – This polyline coverage is a basic outline of the roads running through and adjacent to SAMA property.

*sidewalks* – This polyline coverage represents all sidewalks and pathways within and adjacent to SAMA property.

All buildings were drawn as polygons, while wharf boundaries, roads, and sidewalks were drawn as polylines. Attribute tables for each shapefile contain information concerning the structures' function, Park Service identification, and the date of construction and destruction if that information could be ascertained.

### 3. Utilities

Current utilities were entered into the GIS from several paper maps. The most comprehensive map was the 1990 Denver Service Center (DSC) utilities map that contained locations of pipes, lines, catch basins, poles, and manholes for the project area. After georeferencing the 8-piece map to the orthophoto the utilities were digitized with polylines representing utility lines and utility tunnels, points representing manholes, catch basins and poles, and polygons representing oil storage facilities. Recently added utilities not shown on the 1990 DSC map, such as the power and water lines running down Derby Wharf, were represented on the excavation maps for the archaeological investigations conducted in 2002. A large number of utilities have been constructed in the Park over the years, many of which are now abandoned. Several of these were added to the GIS from a 1937 utility plan and a 1939 plan of the Central Heating Plant, both from the SAMA archives. The inclusion of all abandoned utilities, however, was beyond the scope of this project and encountering these lines should not be unexpected during archaeological investigations or other subsurface work in the park.

### 4. Archaeology

In order to ascertain areas with archaeological resources a thorough review of site reports was conducted with all relevant site maps and remote sensing data scanned and digitized. More recent archaeological investigations have utilized the DSC's 1990 maps as base maps, allowing us to georeference them directly to the utility maps.

Similarly, other archaeological activities have referenced Friedlander's (1991) maps, again allowing for some accuracy during georeferencing. Some of the earliest excavations conducted at the Narbonne House (1973-1975) were able to be georeferenced directly to the standing structure as little has changed in the building's configuration. However, maps generated by Geoffrey Moran for excavations conducted in 1973, are not to scale and were difficult to accurately georeference. Using more recent excavation maps that show portions of the Moran excavations allowed the early work to be plotted accurately in relation to other excavations and structures. Similarly, accurately scaled maps were not produced from the 1997 monitoring of construction work on Tucker's wharf, but the area of impact was able to be mapped from drawings created by John Frayler that reference the 1991 DSC utility maps. Coverages produced for the Archaeology file include:

*Site\_Boundaries* – This polygon coverage contains boundaries of ASMIS documented sites and structures.

*Excavation\_Units* – This polygon coverage includes all open excavations, machine trenching, hand trenching, and coffer dam work.

*STP\_Borings* – This point coverage contains shovel test pits and test borings.

*Remote Sensing* – This polygon coverage contains areas that produced ground penetrating radar, magnetometry, and sonar readings.

*Areas of Potential Archaeological Significance* – This polygon coverage includes areas that have not been tested and have a high probability of containing intact archaeological resources.

All coverages have attribute tables that contain information pertaining to the visible unit, including references to the site report from which the data originated.

## **F. Preparation of Archaeological Sites Management Information System (ASMIS) Data**

The ASMIS database is an information management system designed by the Archeology and Ethnography Program of the National Park Service to record the presence of below-ground cultural resources located within each National Park. Such resources are defined as archeological sites or subsites. Sites are generally defined as "any material remains or physical evidence of past human life or activities which are of archeological interest, including the record of the effects of human activities on the environment. An archaeological resource is capable of revealing scientific or humanistic information through archaeological research" (NPS 2001 Management Policies). The ASMIS database consists of a set of national-level and local-level manual entry forms containing a total of 90 data fields. Thirty fields are linked to the System Wide Archaeological Inventory Program (SAIP), and these are aggregated annually at the National Center to track and address national level management issues for the purpose of inventory, accountability, programmatic focus and policy development. National-level data are thematically arranged by the following subjects.

*Identification:* Park alpha code and unique numbers

*Location:* State and County

*Administrative:* Ownership, use and accessibility

*Registration:* Site significance associated with National Register, National Landmark and World Heritage status

*Assessment:* Site condition, potential threats and record of management actions

*Cultural/Chronological:* Cultural and/or ethnic association, site type/function and temporal association

Local-level data provides information on both sites and subsites. (Some of the site information at this level is inherited from the national-level data entry). A subsite is defined as a discrete, separately managed feature, unit or area within an

archaeological site” (Childs et al. 1997:7). The primary purpose of the local-level portion of the database is to provide more detailed information on the subsites that generally lie within and/or are components of larger sites. As such, subsites are not generally nominated for listing on the National Register of Historic Places (NRHP). Due to differing subsite characteristics from region to region, subsite data can be highly variable requiring many options for adequate documentation in ASMIS.

Local-level data is recorded in some, but not necessarily all of the following fields.

*Site Type:* Kind of site/feature

*Culture History:* Local historical context and cultural affiliation

*Current Ethnic Interest:* Site association and interest linked to individual ethnic groups defined through NAGPRA. This is not as pertinent in the east as it is in the west.

*Historic Theme:* Placement within regionally defined historic themes.

*Administrative and Financial:* For administrative and financial accounting control.

## 1. Condition Assessments

A critical component of ASMIS is the evaluation of site condition for the purpose of long-term preservation and management. Assessment of site condition that focuses on physical stability and deterioration is based upon guidelines and definitions established by the Resource Management Plan (RMP). Once site condition assessments are made by a professional archaeologist, park staff perform periodic condition monitoring. The four condition categories employed for such assessments are summarized below.

Good – The condition assessment finds the site to be stable with no noticeable deterioration or threat from natural forces or human activities. No recommendations are necessary for specific site treatments.

Fair – The condition assessment identifies evidence of deterioration resulting from natural

forces and/or human activity, that if left unchecked, will lead to further degradation of the site. Under this condition corrective treatments are proposed to arrest the degradation through site stabilization and elimination of potential threats.

Poor – The condition assessment finds evidence of severe deterioration from natural and/or human causes. If corrective measures are not taken to arrest the deterioration, then degradation is likely to continue, resulting in loss of the site’s potential to provide data for historical and/or scientific research.

Destroyed – The condition assessment determines the site has been damaged to the point of no longer representing a potential source of data for historic and/or scientific research. Sites meeting these criteria are no longer required to be monitored or assessed under the Government Performance and Results Act (GPRA).

In some cases a condition assessment cannot be completed because the resource is entirely below ground and/or has been covered over by construction such as a parking lot. In such instances the conditions that prevent observation are stated.

## 2. ASMIS Survey at SAMA

The archaeological sites identified by the O&A research were entered into the ASMIS system in July/August of 2005. Sixty-eight archaeological and potential archaeological sites were identified (Appendices B and C). Most of these localities are represented by historically documented structures that were demolished, but still retain potential to yield significant archaeological data. Completion of ASMIS data entry required a final site walkover to conduct condition assessments and to determine potential for future disturbance.

## G. Report Structure and Content

The remainder of this report is divided into six chapters (II-VII). Chapter II presents an overview of environmental characteristics of the Salem area including a description of the topogra-

phy, geology and soils. A presentation of the range of culturally important flora and fauna derived from area archaeological findings is also covered. This is followed by a summary of the Native American occupational history of New England. This presentation draws from a long legacy of archaeological research that is arranged chronologically by cultural periods spanning from the Paleoindian Period (ca. 12,000-10,000 years before present) through the Late Woodland period prior to the arrival of Europeans. This is followed by Chapter III that presents a summary of the Contact Period marking the arrival of European fishermen and explorers who were followed by settlers. Only a brief history of Salem is provided since many other sources are dedicated to this subject. The historic background concludes with an overview of the history of SAMA, briefly documenting the changes that have taken place since the park was created in 1937.

Chapter IV provides a review of ten archaeological investigations that have been carried out at SAMA between the late 1930s and 2004. These explorations were conducted under the guise of

compliance projects and small-scale in-house work projects. This chapter concludes with a presentation of archaeological collections curated at SAMA. Chapter V provides a discussion of disturbances within the park that have the potential to adversely impact or that are known to have impacted archaeological remains. A complete listing of all known and potential archaeological sites is presented in Chapter VI. Each site is characterized based on available documentary and/or archaeological research. Site condition, if known, is provided along with recommendations for site preservation in association with potential threats by proposed construction undertakings. Chapter VII provides recommendations for the general treatment of archaeological sites and discusses the research potential that these possess for developing a better understanding of the park's prehistory and history. Recommendations are also made to assist with the management of underground cultural resources including archaeological testing strategies that can provide an improved understanding of what resources are actually present in the park.



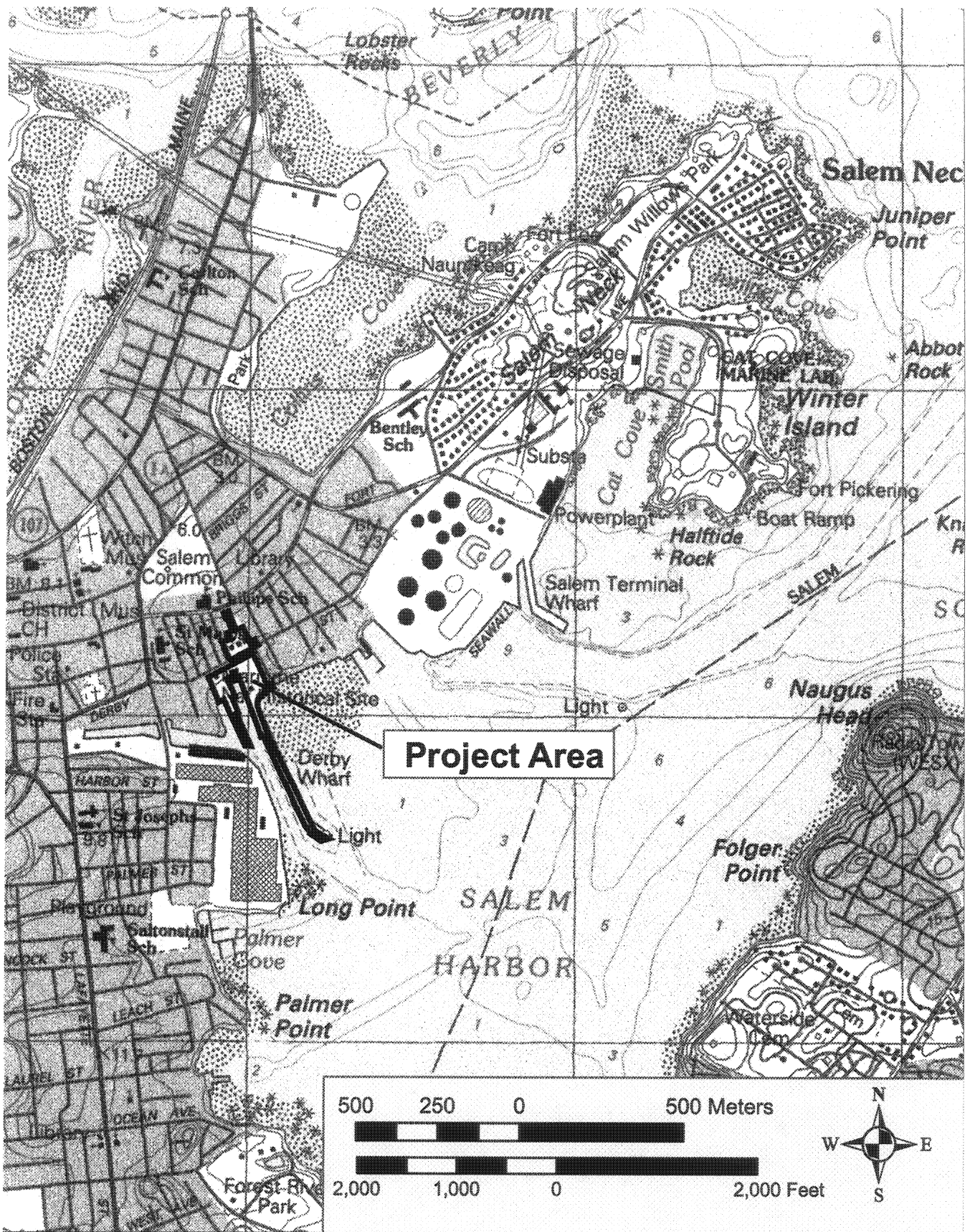


Figure II.1. Project Area on the Salem, Mass. USGS Quadrangle 7.5 Minute Series (1987).

## II. ENVIRONMENTAL SETTING

### A. Geography

Salem Maritime National Historic Site is located on the southeastern shore of a forked peninsula that extends northeastward into Beverly and Salem Harbors (Fig. II.1). The peninsula is bounded on the west by the North River that flows northward into the Danvers River, while on the east it is bounded by the South River and Salem Harbor. The peninsula is longitudinally divided by Collins Cove, which separates the west fork carrying Route 107 from the east fork known as Salem Neck. The SAMA site is situated near the mouth of Salem Harbor that is naturally protected by Marblehead located immediately east. Salem Harbor is geographically situated roughly equidistant between Boston Harbor and Cape Ann.

### B. Geology and Soils

Much of New England is made up of Paleozoic sedimentary or volcanic rock that has been metamorphosed and altered by igneous intrusions. The Salem area, however, is underlain by a belt of metamorphic Precambrian rock that lies adjacent to a unit of Paleozoic plutonic rocks (Thornbury 1965:152-154) (Fig. II.2). The boundary between these rock units is where Beverly syemite containing sodium and potassium-rich minerals intrudes into the Salem gabbro pluton composed of essexite, a black mafic rock with crystals of alkaline minerals. The latter is known locally as salemite where it appears light blue in color (Skehan 2001:217). A band of syemite containing nepheline extends along the shore for approximately eight miles between Salem Neck and Gales Point to the north. This boundary then extends northward toward Plumb Island Sound.

Soils within SAMA are classified by the US Department of Agriculture (1984) as Urban Land that generally characterizes soils that have been altered or obscured by human landscape modification. In such areas approximately 75% of the ground surface is covered by structures or paving,

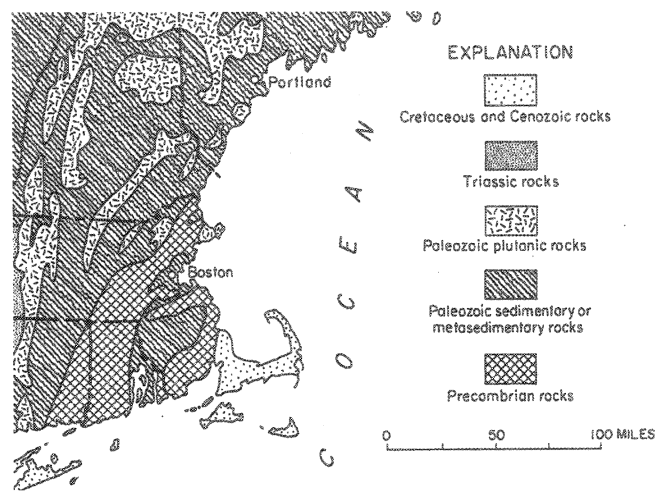


Figure II.2. Detail of Geological Map of New England (Thornbury 1965:153).

while mapable soils generally make up 20% of this area. The closest definable soil units are located in Salem Common, Salem Neck adjacent to Collins Cove and in the Palmer Cove Area on the harbor waterfront. Soils in the Common are characterized as Deerfield loamy fine sand. A typical profile consists of a 6 in dark brown to black loamy fine sand A-horizon overlying up to 18 in of dark brown loamy fine sand. A mottled substratum of light brownish gray loamy sand, brown sand and light yellowish brown fine sand can extend to 60 in or more. These soils are nearly level to gently sloping and moderately well drained. Such soils may well characterize the yard areas making up the northern portion of the Park north of Derby Street. Soils adjacent to Palmer Cove and on Salem Neck consist of Udorthents, smoothed. This soil unit is characterized by excavated and redeposited soil (fill) frequently found in waterfront settings. Fill depth can be 6 ft or more. The soil profile in such areas is mixed and surfaces are generally flat to gently sloped. This soil type characterizes filled portions of the Park immediately south of Derby Street.

While soils within the park have not been federally classified, past archaeological investigations have provided a number of soil profiles revealing general soil characteristics of the area. Findings from the Narbonne House lot revealed 1 to 2 ft of dark brown loam A-horizon consisting of plow-



zone and landscaping fill overlying a light brown loam B-horizon of uncertain depth. The B2- or C-horizon consists of yellow brown loamy glacial sand subsoil (Moran et al. 1982:3, Fig. 2.21). Ground truthing associated with a remote sensing survey in the north yard of the Custom House/Public Stores (Alterman et al. 1995:Fig. 12) revealed what appeared to be landscaping fill over a relatively undisturbed soil profile consisting of a dark grayish brown fine sandy loam A-horizon extending to approximately 1.5 ft overlying a light olive brown fine silty sand B-horizon. The C-horizon was a light olive-brown fine sand.

### C. Topography and Drainage

SAMA is situated in the physiographic New England Coastal Lowland zone that along with the upland zone was subjected to glacial depression, scouring and the laying down of glacial deposits. At the height of glaciation when the oceans were much lower, the sea coast was approximately one mile to the east due to the close proximity of the continental shelf to today's coast (Shaw 1988:11). The present shoreline is characterized by numerous embayments created by sea level rise that accompanied deglaciation. Topography of the northern portion of the Salem peninsula is generally flat to gently sloped toward tidal estuaries associated with the North River and Collins Cove to the north and west as well as southward toward the South River and Salem Harbor. Maximum elevations range between 20 and 30 ft above mean sea level. The park itself lies under 20 feet above mean sea level.

The major drainages between Boston Harbor to the south and Cape Ann to the north include the Charles River, Saugus River (west of Lynn) and the Danvers River (immediately north of and adjacent to Salem). Five tributary rivers consisting of the Bass, Porter, Crane, Waters and North Rivers flow into the Danvers, the mouth of which forms Beverly Harbor that is immediately north of and adjacent to Salem Harbor. Shorter rivers emptying into Salem Harbor include the South River, the mouth of which is immediately south of the Park, and the Forest River at the harbor's

south end.

### D. Flora and Fauna

The rocky nature of much of the New England coast and formation of brown and gray-brown podzols along with a harsher climate has resulted in the dominance of a spruce-fir forest (Hunt 1967:190-193). Other principal trees in wetland environments include balsam, tamarack, cedar and soft maples. Better drained wetland margins contain white pine, hemlock and birch along with spruce and fir. Northeastern hardwood forest present in upper elevations is characterized by birch, beech, maple, hemlock white pine, elm, red oak and basswood (Hunt 1967:191). Both fresh water and tidal marshes generally contain a variety of grasses as well.

The best data source for the past availability of fauna in the region of the Park derives from archaeological investigations conducted 1.4 km to the northeast on Salem Neck (Ritchie and Missio 1996). Floral and faunal remains were found in a shell midden and individual features associated with the Middle to Late Woodland Periods. Floral analysis from this site revealed evidence of both consumed and non-consumed plant species. Edible varieties included, raspberry/blackberry (*Rubus* sp.), plum (*Prunus* sp.), grape (*Vitis* sp.) pokeberry (*Phytolacca*) goosefoot (*Chenopodium* sp.) and hickory. Inedible plant species included American basswood (*Tilia americana*) (Ritchie and Missio 1996:133 Table 5.20, Appendix D).

Faunal remains consisted of shellfish, fish, mammals and birds. Shell fish species were dominated by soft shell clam (*Mya arenaria*) and mussel (*Mytilus edulis*) followed by quahog (*Mercenaria mercenaria*) and minimally by oyster (*Crassostrea* sp). Although remains of many small bony fish were present, identifiable species were limited to Atlantic cod (*Gadus morhua*), flounder (*Bothidae* sp.), sturgeon (*Acipenser oxyrinchus*) and sea bass (*Serranidae*). Mammals present in the region included white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), Black Bear (*Ursus Americanus*), wolf/dog (*Canis* sp.), and

river otter (*Lutra Canadensis*). Medium and large bird remains (*Aves*) were present, but none were identified to the species level. These findings suggest a wide range of resources were once

available in the region and these derived from a variety of terrestrial as well as marine (including estuarine and deep water) environments.

### III. CULTURAL AND HISTORICAL CONTEXTS

#### A. Native American Presence Before European Contact

*Late Pleistocene Period (ca. 15,000-12,000 B.P. (Before Present))*

The geographic and environmental changes that occurred during the Late Pleistocene helped shape the New England landscape that we see today. From 1,600,000 to 10,000 years ago the Laurentide Ice Sheet covered more than 13,000,000 square km (5,000,000 square miles) of North America, reaching as far south as 37° N. The glacial ice pack covered all of New England to a depth of over a mile in some areas. The scraping action and weight of the ice sheet had a major impact on the later landscape. Because a large percentage of the ocean's water was held in the ice, the sea level at this time was approximately 100 m lower than today. Large areas of the Atlantic continental shelf were exposed as dry land and provided active plant and animal habitats (Whitmore et al. 1967). In addition, the weight of this ice sheet depressed the land surface and reshaped the terrain (Shaw 1988:9).

Deglaciation, the melting and recession of the ice sheet around 14,000-13,000 B.P. had several effects on the New England landscape. The land we now know as Connecticut, Rhode Island, and southeastern Massachusetts was exposed by the receding glacial ice, and by ca. 12,000 B.P. virtually all of New England was uncovered (Braun and Braun 1994:14-15). Also, Cape Cod, Nantucket, Martha's Vineyard, and Long Island were formed out of accumulated debris from underneath the ice sheet. The melting glacial water initiated the raising of sea levels worldwide, while isostatic rebound of land depressed by the weight of the ice sheet elevated large regions such as Maine (Cartier 2002; Shaw 1988:11). The shoreline in Essex County around 12,000 B.P. was not as depressed or inundated, and probably was less than a mile east of the modern shoreline (Shaw 1988:11). The modern

coastal configuration was not reached until about 3000 B.P. Deglaciation also created large lakes in the Hudson-Champlain drainages and in the Connecticut Valley. Many other small bodies fed by melt water formed in Massachusetts (Curran and Dincauze 1977).

Accompanying the deglaciation process was a slow rise in regional temperatures and relative humidity that around 9000 B.P. began to bring about a shift from a grassy tundra landscape to one dominated by spruce woodland. As this warming and drying trend continued, oak and hemlock forest came to dominate much of the region between 8000 and 5000 B.P. (Cartier 2002; Shaw 1988; Robinson 1996).

*Paleoindian Period (ca. 12,000 – 10,000 B.P.)*

The first human migrants to New England were likely hunter-gatherers who sought large Pleistocene herd animals that fed on tundra grasses, including caribou and mastodons (Robinson 1996:4). Their place of origin was likely from the south and their mobile way of life implies considerable adaptability as well as wide kinship ties. Archaeologists have differing views of the subsistence patterns of these early groups. Some believe they were generalist foragers based at the margins of glacial lakes (Dincauze 1981), while others suggest the use of base camps where large groups sent out smaller groups into the newly deglaciated terrain (Dincauze 1996:10; Snow 1980:150-152).

No prehistoric site from this period has been identified in the Salem area, but in nearby Ipswich, Massachusetts is the large site of Bull Brook that dates to ca. 11,000 B.P. Artifacts there are restricted to stone tools, including finely flaked and fluted lanceolate points (Clovis and Folsom) used as knives and spearpoints, scrapers for cleaning hides and shaping wood and bone, graters for carving stone, bone, and wood, and drills/borers. (Shaw 1988; Byers 1954; Grimes et al. 1984). Three stratigraphically distinct point types suggest three phases of occupation where a variety of plant and animal resources including

large caribou herds were exploited (Curran and Dincauze 1977) (Spiess et al. 1998). Bull Brook is generally associated with Dincauze's 1996 model of occupation.

*Early Archaic Period (ca. 10,000 – 8,000 B.P.)*

The Archaic period (10,000 to 3,000 B.P.) saw cultural change and increasing diversity due to a changing environment that gradually shifted from a grassy tundra landscape to spruce woodland. This change resulted in increased food availability and a broadening of subsistence patterns that became characterized by seasonal movements to exploit various ecological niches and evolving plant and animal communities (Shaw 1988:12). Continuity from the Paleoindian Period into the Early Archaic Period included "restricted wandering" of groups within territories during the Early Archaic (Snow 1980:171). As the physical environment began to stabilize and became more predictable, human groups grew less generalized in adaptation and settled into more restricted foraging territories (Shaw 1988:12). This decrease in generalized foraging was influenced by the slow shift to a spruce, fir and birch dominated forest. Native groups probably came to live in several base camps throughout the year, specifically to take advantage of specific resources. This pattern included occupation of the coast during the summer, along the rivers and lakes in the fall, in sheltered camps during the winter, and along streams that supported fish runs in the spring (Shaw 1988:12). Tool kits from this period are similar to those of the preceding Paleoindian period, but also include projectile points with bifurcate bases.

*Middle Archaic Period (ca. 8,000 – 6,000 B.P.)*

Human population increased in southern New England during the Middle Archaic period, as evidenced by a growing diversity of environmental settings in which sites are found. These include the margins of bogs, swamps, rivers, lakes and ponds, with differentiation of sites based on size and apparent function (Cartier 2002). Site types include semi-permanent base camps along rivers (Dincauze 1976), streams and wetlands, special-purpose camps in uplands or

near wetlands, as well as rock shelters, stone quarries, and workshop areas (Cartier 2002). In addition, the cultural traditions of this time illustrate a close relationship with the Atlantic seaboard (Mid-Atlantic) and piedmont (Southeast) regions.

This period also exhibits a growing diversity in artifactual remains beyond projectile points. Included are atlatl (spear-thrower) weights, ground stone woodworking tools such as axes, adzes, and gouges, whetstones, hammerstones for chipping stone tools, plant processing tools such as mortars, pestles, grinding stones and nutting stones, and ground slate knives. Many of these forms do not change significantly over long periods of time and cannot be associated with one time period when discovered out of context (Shaw 1988:14). Although little is known about mortuary customs by this time, objects used in daily life begin to be interred with the dead.

The Middle Archaic represents the earliest period for which there is evidence of Native occupation in the Salem area. Occupation sites, all of which are confined to the coast have been identified immediately north of SAMA in the yard of the House of the Seven Gables (Merrimack point and chipping debris); 1.5 km south of the Park at Pickering Point (plummet); and the tip of Salem Neck (Neville Variant point).

*Late Archaic Period (ca. 6000 – 3000 B.P.)*

Diversity and group interaction develop further during this period as indicated by the development of significant complex social and ceremonial practices such as elaborate burials and long distance exchange networks. Distinctive artifact types also allude to a broader spectrum of resource exploitation, territorialism, religious practices, and technological abilities (Shaw 1988:15). As the environment continued to stabilize during this period (indicated by pollen analysis from archaeological sites) there was a marked decrease in the rate of sea level rise along the New England coast (Shaw 1988:15). This led to the enlargement of coastal estuaries that expanded

the habitat for shellfish and other marine resources. The many shell middens found along the Massachusetts coast that date to this period attest to this dietary emphasis and ten such archaeological sites have been identified in the Salem area (Shaw 1988:15).

The large number of archaeological sites and typological attributions makes the Late Archaic “the most visible period of Massachusetts’s pre-history” (Cartier 2002). These sites reflect increased population density and highly specialized communities that adapted into narrow foraging territories defined by drainages (Cartier 2002). Sites are associated with a variety of ecological niches: near riverbanks, margins of lakes, ponds, bogs and springs, around meadowlands, in rock shelters, at quarries, and along the coastline. This diversity of site locations may be indicative of a dynamic seasonal settlement pattern (Dincauze 1980; Cox and Thorbahn 1983). New technological innovations that appear during this period include the manufacture of stone bowls. The Late Archaic also maintains a wide range of projectile point types that date to either part or all of the period. Three distinct cultural traditions have been identified in New England: the Laurentian Tradition indicated by side-notched Brewerton, Vosurb, and Otter Creek types, the Small Stemmed Point Tradition identified by small projectile points usually made of quartz, and the Susquehanna Tradition characterized by large and thin broad-bladed projectile points with a stemmed base) (Dincauze 1975). While there is evidence of long-distance exchange of materials, local resources are increasingly used for these chipped-stone tools (Cartier 2002).

The Late Archaic is better represented archaeologically in the Salem area. Sites have been identified on the neck between the North River and Collins Cove (Wayland Notched point); at a site northeast of Salem Common (Susquehanna Broad, Wayland Notched, and small stemmed points as well as other bifaces); on the shoreline south of the Park (felsite Atlantic and Susquehanna Broad-like points); Pickering Point

(Atlantic point); the Salem Neck area including Winter Island (small stemmed and small triangle points, steatite vessel, adze, abrader, gorget, ocher); and across the bay at Marblehead (Atlantic point).

#### *Early Woodland Period (ca. 3,000 – 2,000 B.P.)*

The terminal Archaic and Early Woodland periods were once thought to be characterized by a shift in population from interior uplands to coastal habitats (Dincauze 1974:49-50). Archaeological work over the past 20 years, however, has reversed this thinking specifically by identifying population loci in interior regions (Cartier 2002). Thus the Early Woodland is now seen as a period of increasing population in both inland and coastal settings that was accompanied by an increasing degree of sedentism that, in turn, was associated with the development of new technologies. Pottery vessels, in particular, first occur in Early Woodland contexts. Generally known as cord-marked Vinette I, these conical-based vessels are thick and contain crushed minerals, shell, or fiber in their fabric. Firing temperatures were low, resulting in pots that were fairly porous and lacked durability. Interior and exterior surfaces were impressed with a cord-wrapped paddle applied while the clay was still wet (Shaw 1988:18-19). Though these ceramics were in use during this period, they did not entirely replace bark or skin bags that were likely used for cooking and storage during the previous Archaic periods.

The growing reliance on cultivated plants eventually led to the other important introduction of the period, that of agriculture, which further supplemented a diet based on hunting and gathering. The adoption of these new technologies was incorporated most quickly in the coastal regions and in the Connecticut River valley. These areas had ideal environments that were characterized by rich marine resources, soils well suited to horticulture and the availability of other terrestrial resources (Cartier 2002). The incorporation of both ceramics and agriculture into New England was gradual and uneven as it spread through the

region. The slow progression was most likely due to the general maintenance of a Late Archaic subsistence strategy that included hunting, gathering, and fishing (Shaw 1988:18).

Early Woodland tool kits included thicker side-notched biface projectile points, lobate-stemmed Adena points, rare Fulton Turkey Tail points, Small Stemmed and Orient Fishtail points, in addition to classic Meadowood and Rossville projectile points, and cache blades (Cartier 2002). It is clear from these artifact types that there was a holdover of some tools from the Late Archaic. Small stemmed points are associated with both the Late Archaic and Early Woodland periods, and might also have been used during the Middle Woodland. In addition, Rossville points occur in Middle Woodland and perhaps in Late Woodland contexts (Cartier 2002). Several projectile point types, including Rossville and an un-named side notched type, are associated with Early Woodland occupations, but it is very likely that Small Stemmed Point Tradition types continued to be used (Shaw 1988:19). Additional features of the Early Woodland include an increase in the amount of exotic raw materials such as non-local chert, red ochre, and copper, especially in mortuary contexts, items that imply an increase in trade, communication and interaction (Snow 1980; Cartier 2002).

The Early Woodland period is represented in the Salem area at two localities. On the waterfront south of Palmer Cove was found a Meadowood and a Rossville projectile point along with other material. Salem Neck, where extensive habitation sites were probably present also produced a Rossville point.

*Middle Woodland Period (ca. 2,000 – 1,000 B.P.)*  
Increased specialization and refinement of both technological and ritual practices are apparent during this period. While burials reveal reduced usage of red ocher and contain fewer grave goods, there is a higher frequency of secondary interments and greater variation in preparation of the dead (Cartier 2002). Regionally, there is an

increase in ceramic forms and variety of decoration, with cord-impressed, fabric-impressed and smoothed dominating in Southern New England, and scallop-shell impressed or pseudo-scallop-shell impressed ceramics more common in Northern New England (Cartier 2002). Rossville and Small Stemmed points seen in the Early Woodland continue to be used into the Middle Woodland. Fox Creek and Steubenville bifaces are also characteristic during this period, and Jack's Reef points carry over into the Late Woodland. Lithic projectile points, however, are probably not as important in the Native tool kit as compared to bone and antler tools (Cartier 2002). While exotic materials used in lithic production increase in this period, there is a decline in the number of exotic finished goods indicative of long-distance trade (Cartier 2002). This is clearly evidenced by projectile points often made of local materials. Some projectile points are similar to types in New York, possibly a result of political alliances, trade networks, and/or east-west population movements (Shaw 1988:19). The relationship between New England and New York groups, however, is not well understood (Snow 1980).

Sedentism during this period increases, especially in the context of locations situated along waterways. Based upon their size, these sites were occupied for longer durations compared to upland areas that are used more sparingly, potentially for procurement (Cartier 2002). Long-distance communication and exchange appear to shut down by the end of the Middle Woodland as evidenced by a greater reliance on local raw materials and fewer exotics. Sites in coastal areas and New York show evidence of house construction with pit features that have been dug out and were later filled with refuse (Cartier 2002). Evidence of maize horticulture appears by the end of the period.

Nonspecific Woodland as well as Early Woodland period artifacts have been found at a number of localities in the Salem area including Salem Neck and Winter Island (food processing and tool man-



ufacturing sites, Fox Creek stemmed point), neck between the North River and Collins Cove (large habitation site containing pottery), north of the Park at the House of the Seven Gables property (Jack's Reef corner notched point), waterfront south of the Park (Levanna point and Greene point), and the south shore of the Danvers River opposite Bass River (Green point).

#### *Late Woodland Period (ca. 1,000 – 450 B.P.)*

The subsistence and settlement techniques exhibited in the Middle Woodland continue to be developed in this period. Sedentary villages have become the norm and cultivated plant foods are a major component of the Native diet (Shaw 1988:19). Agricultural production diversifies with the cultivation of maize, beans, squash, sunflower and other vegetables in both coastal and riverine zones (Ritchie 1969). Not surprisingly, those areas offering good cultivatable soils have promoted greater sedentism than did areas with less favorable conditions (McManamon and Bradley 1988). Settlement patterns between southern and northern New England continue to differ during this period. In general, smaller living sites associated with a more mobile hunting and gathering lifeway characterized the south, while larger, more sedentary groups populated northern New England (Cartier 2002).

Ceramic and lithic technology also continues to change and exhibits a blend of cross-cultural characteristics. A variety of decorative techniques, such as incised geometric patterns and deep impressions, are found on ceramic vessels from this period. In addition pottery forms come to contain collared rims, decorative patterns and globular shapes commonly seen on Iroquoian pottery (Shaw 1988: 19). The triangular Levanna projectile point is associated with this period, and it may have been used with the newly introduced bow and arrow in New England. These changes, however, did not occur evenly across southern New England (Shaw, 1988:19).

Burial ceremonies and practices continue to develop and diversify in the Late Woodland.

Archaeological sites reveal both single and mass graves as found in ossuaries, and burial during this period was primary, secondary, or by cremation. There are special mortuary sites for group burials, while single burials are usually located in domestic contexts (Cartier 2002). Evidence has also been found of the development of long-distance exchange, and some researchers have suggested that a native beaver pelt trade was established before European contact (Cartier 2002).

Artifacts associated specifically with the Late Woodland period have also been found at some of the sites associated with the preceding Middle Woodland period. The most important of these are the waterfront south of the Park, south shore of the Danvers River (Madison point), and Salem Neck including Winter Island.

#### **B. Native American Presence During European Contact ca. 1500-1620**

The arrival of Europeans in the Americas during the fifteenth century had a profound impact on Native Americans. Even prior to the settlement of Salem in 1626, interaction between the two groups had both positive and negative effects that included the formation of new trade networks, but also the introduction of fatal diseases. Europeans began exploiting the rich Grand Banks fisheries off the Newfoundland coast as early as 1500. Interest in identifying additional resources prompted exploration southward along the New England coast (Brasser 1978). There are virtually no records of these sixteenth-century fishing expeditions, but there are some accounts of contact between Native Americans and Europeans such as those described by Giovanni da Verrazano during his 1524 travels along the New England coast (Mrozowski et al. 1988:20). According to historian James Duncan Phillips (1933), Salem may have been one of the locations where Verrazano landed.

There are also several descriptions of the New England area from early seventeenth century explorers prior to colonization that include Native Americans before the outbreak of fatal diseases.

Bartholomew Gosnold looking for the area that Verrazzano described as *Norumbega* in 1602, gives an account of the Native inhabitants that he encountered during his eight-day stay on Cuttyhunk or Naushon, off the coast of New Bedford, Massachusetts. Other descriptions from this period come from Pring in 1603, Weymouth and Champlain in 1605, and Smith in 1614. Both Champlain and Smith visited Salem Harbor and mention that there were many Native people living in the area and that there were many cleared agricultural fields (Mrozowski et al, 1988: 21). In addition, Smith created a detailed map of the New England coast, the first to include the area that is Salem, known then by the Native American name, *Naumkeag*, meaning “fishing place” (Perley, 1912; Phillips 1933). Toward the end of the sixteenth century, the fur trade increased contact between Native Americans and Europeans, though this relationship was not always peaceful since Europeans were prone to capture Natives and bring them to Europe as either slaves or as “curiosities” (Mrozowski et al. 1988:20). These occurrences made Native groups untrusting of Europeans in general.

By the early seventeenth century, European ships had become faster and larger, and voyages to North America occurred with greater frequency. With these trips to the New World on vessels with a larger number of crew and passengers came diseases that had frequently “run their course” among the crew before landfall in the New World (Mrozowski et al. 1988:21). Between 1617 and 1619 a disease that was most likely smallpox, measles, typhus, or tuberculosis, spread throughout New England. Since Native Americans had no immunity to European diseases, they died in great numbers. It is estimated that 80% of the coastal Native population living between Boston and Portsmouth, New Hampshire was decimated (Cook 1976; Snow and Lanphear 1988). European settlers who arrived in New England thereafter encountered a fragmented and diminished group of Native Americans (Mrozowski et al. 1988:21). The Native groups that the first Salem settlers encountered were Algonquian, who

occupied an area that encompassed Connecticut, Rhode Island, Massachusetts, and the New Hampshire coast (Snow 1978). Algonquians had alliances with groups as far away as the Penobscot of Maine, but their enemies were also widespread and included the Micmac of New Brunswick who raided the agricultural reserves of the coastal Massachusetts groups (Mrozowski et al. 1988:21).

Archaeological evidence of the Contact Period derives primarily from the accidental discovery of Native burials by construction projects. Such finds have been made on the neck between the North River and Collins Cove, the waterfront area of Palmer Cove where four bone spoons were interred with the dead, and the west shore of the North River. Other Contact Period finds have been made at Salem Neck (ceramics and glass beads), on the south shore of the Danvers River (glass bead and lithic debitage) and across the harbor at Marblehead.

### **C. Native Americans from European Settlement to the End of King Phillip's War (ca. 1620-1686)**

European settlers in Salem encountered Native American groups that were disorganized and politically weakened due to the recent population loss from epidemics (Mrozowski et al. 1988:22). A major Native settlement in the Salem area was located northwest of the North River, near the present intersection of North and Osborne Streets. This village most likely contained a number of dwellings and the population at any given time probably fluctuated since it was common for people to move between communities along the coast (Mrozowski et al. 1988:22). Groups living in areas that were attractive to Europeans during the early contact period may have become more sedentary due to the potential for Indian groups to easily interact with European traders (Ceci 1979-80). Reverend Francis Higginson, who arrived in Salem in 1629, described Native houses as “little and homely, being made with small poles pricked into the ground, and so bended and fastened at the tops, and on the sides they are matted with



boughs and covered on the roof with sedge and old mats” (Higginson 1891:105). Higginson also commented that Native Americans owned some European goods, that women were involved in agricultural activities, and that “the Indians are not able to make use of the one fourth part of the land...nor any ground as they challenge for their own possessions, but change their habitation from place to place” (Higginson 1891:105). Higginson’s descriptions, though inherently biased, provide some insight on Native lifeways at this time and highlight an unfamiliarity with Native seasonal use of the land. The practice of fallowing cultivated fields promoted relocation to new resource areas (Mrozowski et al. 1988:22). Furthermore, Higginson’s comments point to a Native concept of land ownership that did not include bequeathing family land, a point that Europeans would later exploit.

The relationship between European settlers and Native Americans was amiable during the early seventeenth century. Higginson writes that Natives appreciated the settler’s presence, often calling on them for protection from northern enemies (Mrozowski et al. 1988:22). In addition, both Natives and settlers shared common fields. Early records state that Europeans took steps to ensure that the Native Population had a sufficient amount of land (Mrozowski et al. 1988:25). Though the relationship between these two groups in Salem was civil, accounts of Native attacks on other European communities trickled in and created an atmosphere of mistrust towards Native Americans. This led to the passage of laws against trading guns, ammunition, and alcohol to the Natives. As Salem grew, the relationship between settlers and Natives worsened (Mrozowski et al. 1988:25). King Philip’s War in 1676 destroyed a once amenable relationship between New England settlers and Native groups. Though there were no attacks on Salem, there were several conflicts close by. This led to the creation of a night watch to protect the settlers on the north side of the North River and Natives were confined to their houses at night (Mrozowski et al. 1988:25). After the war,

Natives were prohibited from coming within the town boundaries at nighttime.

#### **D. Historic Background of Salem**

##### **1. Settlement of Salem and the Development of Mercantile Industry ca. 1626-1783**

Salem was first settled in 1626, six years after the Pilgrims landed at Plymouth. Roger Conant, a malcontent from the Plymouth settlement who had been driven out in 1624 to Nantucket, brought a small group of individuals associated with the English Dorchester Trading Company north to Cape Ann and established a year-round fishing post (NPS 1990:123). Conant was then appointed governor by the Dorchester Company, but soon thereafter another group from Plymouth under the direction of Miles Standish established a rival fishing post in Gloucester. After a year, both posts were dissolved due to lack of prosperity and Conant moved his group south and established the town of Naumkeag, the first town in the Massachusetts Bay Colony (NPS, 1990: 123). Naumkeag was a small peninsula with a protected natural harbor that provided access to both the sea and to several major rivers and associated estuaries. The settlement was established on a cove representing the southeast shore of the North River. Though the inhabitants of this new post tried to make it self-sufficient by combining fishing with agriculture, poor soil conditions severely limited agricultural production (NPS 1990:123).

In 1628, the newly formed Massachusetts Bay Company that had bought out the Dorchester Company sent John Endicott to Naumkeag to become the governor. Endicott settled his party at a separate location on the south shore of the peninsula. Relations between the two settlements were strained from the beginning. In an attempt to bridge the divide between these two groups, Endicott suggested renaming the settlement to Salem from the Hebrew word ‘shalom,’ meaning ‘peace’ (NPS 1990:124). Soon after there was increased growth in the Massachusetts colony due to a rise in Puritan migration stemming from religious intolerance by the English government.

Suppression of individual freedoms was also prevalent in the fledgling colony then under governor John Winthrop. Occasional unrest led to parties breaking off to establish new settlements within New England (NPS 1990:124). The original grant for Salem included the areas that are now Marblehead, Manchester, Beverly, Wenham, Danvers (originally named Salem Village), Peabody, and a portion of Middleton (NPS 1990:124) (see Fig. I.1). The authority for governing Massachusetts was first granted by King Charles I through a charter in 1628. This charter was withdrawn in 1691 when Salem was designated a royal colony to be governed by officials appointed by the English Crown (NPS 1990:125). Essex County was established in 1643 and Salem became the seat of county government in 1648 (NPS 1990:125).

Salem's natural harbor, with its network of navigable rivers, made it an ideal area for maritime commerce. Puritan colonists made their living by farming in the areas that were hospitable to agriculture (e.g. Salem Village), livestock raising in the warm seasons, and small scale home manufacture of furniture, harnesses, shoes, clothes, and other goods during the winter. People who lived in areas bordering rivers or the ocean engaged primarily in fishing and commercial shipping (NPS 1990:124). Salem's Winter Island, the tip of the peninsula that provided shelter for boats, was the center of its fishing industry until 1740. In 1629 six shipwrights, including Robert Moulton, constructed a fishing fleet that used Winter Island as its base for harvesting the bay, coastal waters, and the offshore bank (NPS 1990:126). In 1637, Richard Hollingsworth received a grant of land on Salem Neck, on what today is filled land on Salem Harbor's waterfront, to construct a shipyard (Phillips 1933:96). Shipbuilding was deemed so important at this time that a law was created forbidding certain timber from being cut for anything but shipbuilding or export (Phillips 1933:97).

An outgrowth of Salem's fishing industry was the slow but steady development of commercial

transport by the late 1630s (NPS 1990:126). Initially, Salem's natural commodities of lumber, meat and fish were most marketable to England's West India colonies. As shallops and ketches were made for longer voyages, dried codfish was traded with European countries such as Spain and Portugal. Waste fish, lumber, and other provisions were then shipped to the West Indies in exchange for exotic products that were taken back to the colonies or to England (NPS 1990:126). Slaves were not a major part of Salem's trade, but the nature of the routes were part of the "Triangle Trade" that brought West Indian sugar and molasses to New England, New England rum to the west coast of Africa, and African slaves to the English colonies in the West Indies to work on sugar plantations. Salem's role in this trade was transport of excess cod to the West Indies to feed the slaves, the provision of horses to use in sugar mills, shipping wooden staves for making casks to transport molasses, and serving as a market for sugar, molasses and indigo (NPS 1990:127). Through this trade Salem merchants were able to expand their sights beyond the North Atlantic and Caribbean in order to trade their staple products for finer goods. Salem ships went to the Netherlands, Channel Islands, and British Isles for salt, linen, hardware, bar iron, and bills of exchange, and to southern France and the Iberian Peninsula for wine, hides and fruit (NPS 1990:127). These new networks made New England ship owners a formidable mercantile presence in the world.

By 1650 approximately 800 people were living on the Salem peninsula in houses that were situated in back of wharves between Central Street and Essex Street. The common at this time was swampy and used for pasturage or military training until it was drained in the late eighteenth century (NPS, 1990: 128). Throughout the seventeenth century, Salem developed as a town as an increasing number of skilled artisans and craftsmen set up businesses there. House construction came to be characterized by larger homes with multiple floors within a saltbox shaped frame. Commercial development continued, particularly

after Salem became an official port of entry in 1658. New England had an abundance of natural resources for shipbuilding, and by 1660 skilled shipwrights from England began coming to New England ports to join local builders (NPS 1990:127). Tradesmen took full advantage of riverine access to transport lumber and food from other New England communities and iron from the nearby Saugus Iron Works.

In the mid seventeenth century, a divide emerged between merchants and artisans living in the central part of the Naumkeag peninsula and the farmers in Salem Village (Danvers) that derived from an early divergence in economic interests and lifestyles between the two groups (NPS 1990:129). This rift would play a part in the witchcraft hysteria of 1692. This black mark on Salem's early history was also influenced by infighting and jealousy between Salem Village families. Ministers were also forceful figures in the witch craze, administering strict Calvinist doctrines to a community that possessed a fear of mystical powers (NPS 1990:129). In addition, stories of raids on neighboring communities by Native groups, created a mood of fear within Salem Village. All these factors came to a boiling point in the winter of 1692 when a group of young girls in Salem Village experimented with "black magic" introduced by Tituba, a West Indian slave. The girls, who were caught in the act, began to "exhibit fits" and "convulsions," convincing the townspeople that they were in a pact with the Devil. The hysteria grew from there, with accusations flying through the village. Many historians have argued differing theories to explain this event, from a hallucinogenic mold in the wheat of bread the girls were eating, to the girls making their "fits" up as part of continuing family feuds. Regardless of the reasoning, over the next nine months, 20 people were executed and more than 150 imprisoned.

Though the majority of the people accused were commoners, the hysteria also affected a number of authority figures, including Beverly's Reverend John Hale. Hale was minister of the

church in Beverly, who aided Salem officials in the trials until his wife was accused of witchcraft. He later wrote a treatise discussing the nature of the "crime" of witchcraft and how guilty persons could be discovered and convicted (NPS 1990:129). The trials finally came to an end in 1693 for several reasons. Accusations were started against respectable members of the community, including colonial Governor Sir William Phips' wife. When this occurred, he ordered the trials stopped and the prisoners freed. Another important factor that led to the end of the trials was the barring of "supernatural" evidence in court. For the majority of the witch trials, accusers going into fits and proclaiming to see a devil with the accused in court was allowed as permissible evidence. Towards the end of the trials, the girls who were making the majority of accusations were being viewed with skepticism, and their "supernatural" evidence was no longer valid. Without such evidence, witch claims had no



Figure III.1. Portrait of Elias Hasket Derby, painted between 1800 and 1825, by James Frothingham (1786-1864). Oil on canvas. Peabody Essex Museum Collection, M353.

proof. The end result of the witch trials of 1692 was the emergence of a new political and social force in Salem that centered on the merchants. The trials were the culmination of many antagonistic social forces within this Puritan community, most importantly competition between Salem Village and Salem Town as well as conflicting ideas within the village itself over how the area should be governed. When the trials ended, interest in religion waned, and as a result so did the prestige and influence of the clergy (NPS 1990:129).

With the increase in commercial maritime activities came an influx of new port industries. Shipwrights were needed to build and maintain fleets for fishing and trading. By 1700 there were two shipyards in Salem, one at the foot of Becket Street (east of the House of the Seven Gables) and the other on the South River at Norman Street to the west of SAMA. The latter was known as Knocker's Hole from the constant pounding of mallets emanating from this area (Mrozowski et al. 1988: 59; NPS 1990:127). Increased commerce fostered the construction of new roads and by this time at least twelve wharves had been constructed along the South River waterfront between Norman and English Streets. Merchants initially built homes close to the wharves to keep their eyes on commercial activities (NPS 1990:128), but as the merchants emerged as the elite class in town, they moved back towards Essex and Washington Streets where they built fancy homes in the Georgian style. In their place, artisans and lesser merchants moved to the wharf, and immigrants from the British Isles as well as France moved into the town center (NPS 1990:128).

Salem's merchant fleet suffered during Queen Anne's war (1702-1713), when French vessels sank or captured a number of Salem merchant ships. The construction of forty ships during this period, however, helped to offset the losses, and these vessels traded with Spain, Portugal, the Caribbean, and the Azores (Mrozowski et al. 1988:60). Salem continued to thrive as a small

fishing community, and in the 1760s was still a village with a population of 4,469 individuals and 88 ships consisting of 53 fishing vessels and 35 merchant ships. The number of structures in the town numbered around 923, of which 509 were residential houses (Felt 1845; Phillips 1937:242). At this point, Richard Derby acquired several waterfront lots on Derby Street that had been widened in 1764, and began construction of wharves on this property. Captain Joseph White also acquired land on the waterfront side of Derby Street and constructed a wharf. Details of the construction of these wharves and the occupational history of the Derby Street waterfront will be discussed in the next section.

Mounting tension between the colonies and England during the mid eighteenth century led to the seizing and closing of ports like Boston and New York. Salem, however, remained open, allowing trade to flourish. The port served as a base for arms shipments, and area merchants built small privateering vessels in preparation for a war, since the colonies lacked a formal navy. Salem alone sent out 158 vessels that captured more than 400 British ships, many of which were refitted and sent out to attack the British. There were many risks involved in privateering, but the profits outweighed them and were an integral part of the post-war fortunes amassed by merchants, sea captains, and their crews (NPS 1990:130). The war decimated Salem fishing fleets, however, and suspended shipbuilding and related industries. In addition, the end of privateering at the close of the war threw hundreds of seamen out of work.

Economic recovery after the Revolutionary War was difficult and slow for all Massachusetts sea-coast towns since they had contributed a great deal of men and resources to the war. There was an inevitable post-war depression that left many merchants and ship owners in smaller towns facing economic ruin. The Salem merchants who had prospered during the Revolution began investing their fortunes in reestablishment of their fishing fleets and reaffirmation of old trade rela-



Figure III.2. Detail of Map of Salem Massachusetts, 1795 (Courtesy Massachusetts Historical Commission). Scale unknown.



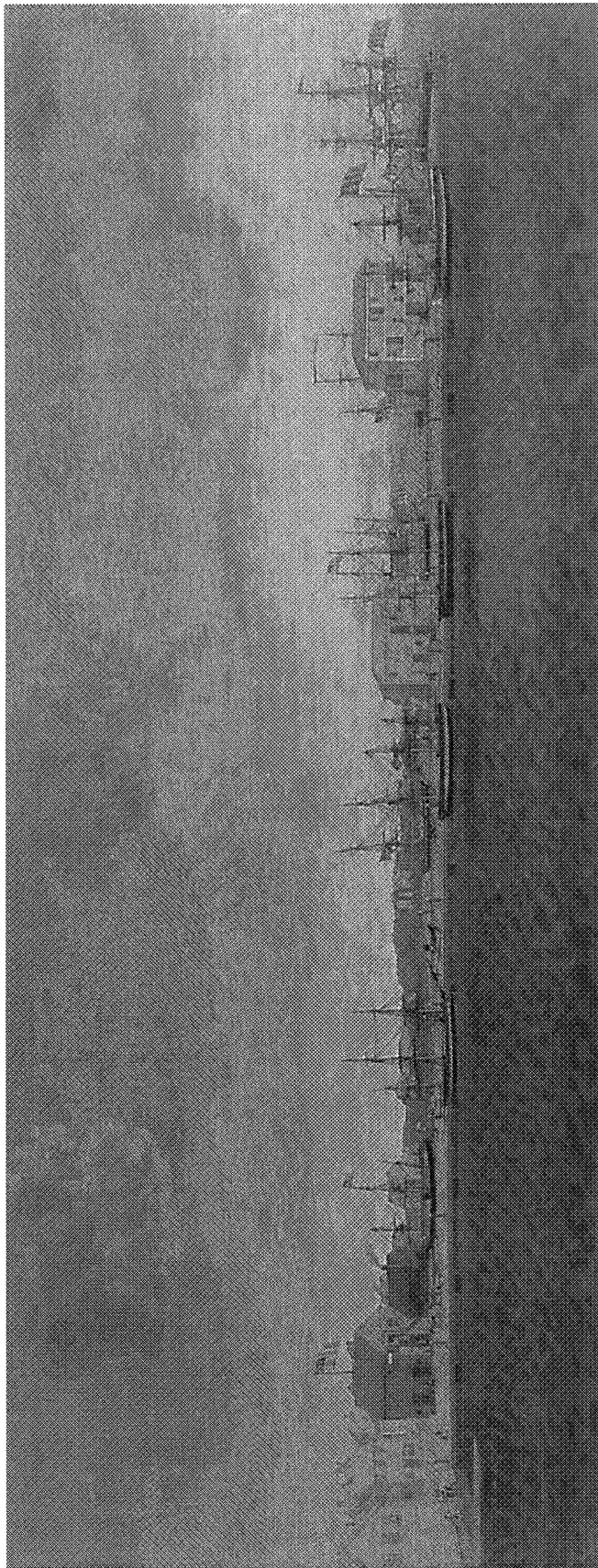


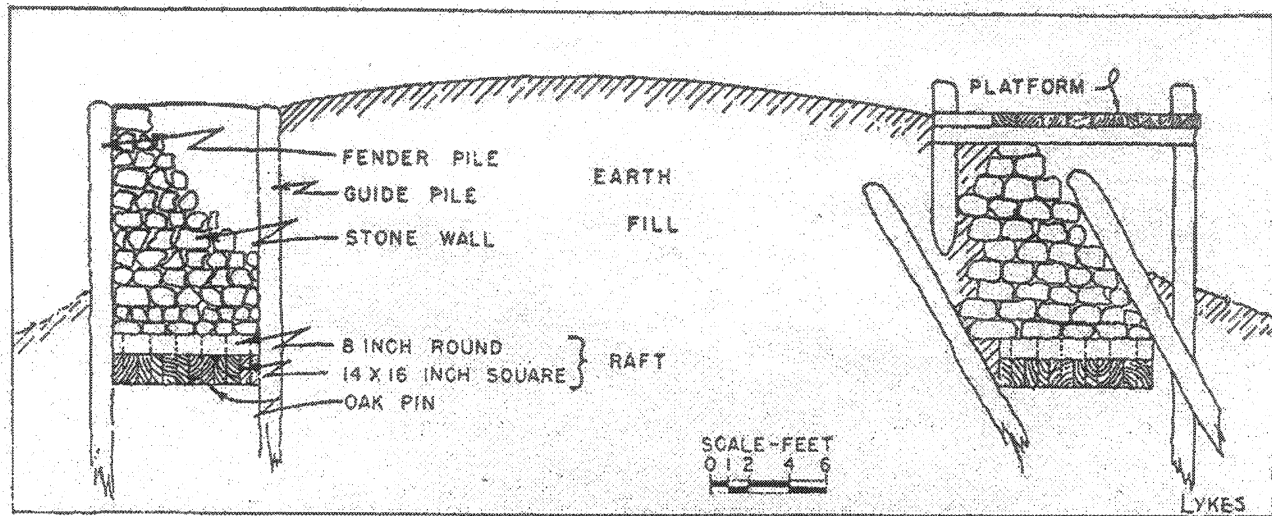
Figure III.3. Crowninshield's Wharf, 1806, by George Ropes (1788-1819). Oil on canvas. Peabody Essex Museum Collection, M3459.

tionships, but some pioneering businessmen like Elias Hasket Derby (Fig. III.1) looked for expanded opportunities in new areas, primarily around the Baltic Sea and in the Far East. It was necessary to find new trading sources since the newly formed country had lost its ties to other British colonies, including the West Indies. Trade resumed with the British West Indies after 1796 (NPS 1990:130).

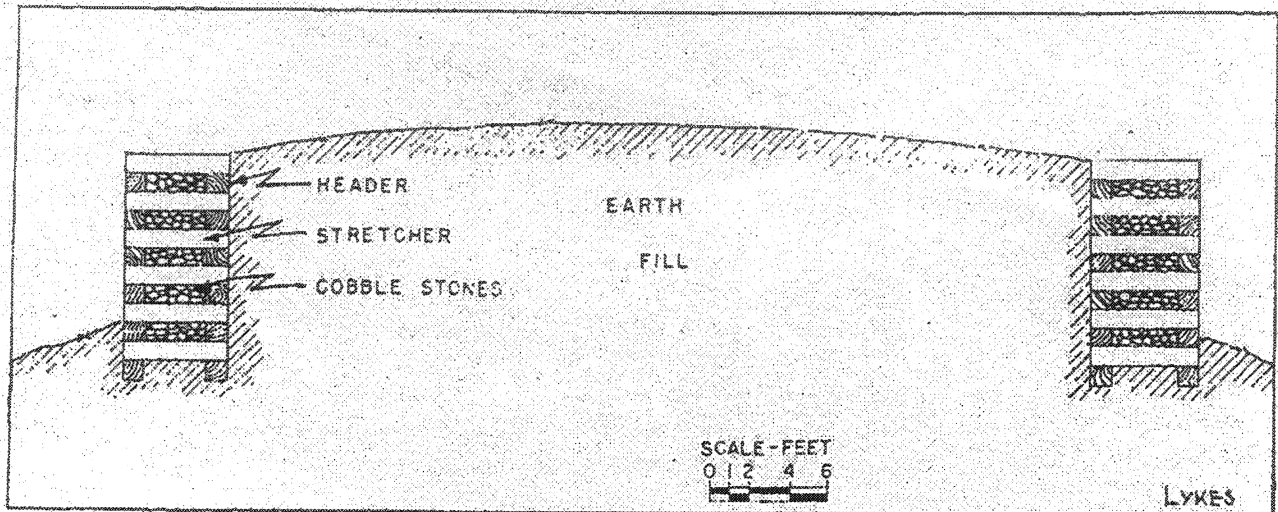
## 2. Salem's Golden Age and the Decline of Maritime Trade ca. 1783-1844

The period in Salem's history between the Revolution and the War of 1812, a time of great prosperity and wealth, is known as the Golden Age of Sail. During this time, no port was too distant, and no waters too dangerous as Salem traders opened markets in Russia, the American Northwest, Africa, and the Near and Far East. At the height of Salem's post-Revolutionary commercial activity, 40-odd wharves lined the South River harbor and Salem waterfront (Fig. III.2). By family association, Derby Wharf activities were generally limited to the Derby family. Derby Wharf was built in two stages. The first 803-foot section was constructed between ca. 1764 and 1771 by Capt. Richard Derby and his son Elias Hasket Derby, and is one of the few surviving prerevolutionary port facilities in the country. A 1,300-foot section was added between 1806 and 1808 by E. H. Derby's heirs, making the wharf the longest on the waterfront (NPS 1990:130) (Fig. III.3).

Derby wharf, like many of the other wharves in Salem during this period, was suggested by documentary evidence to have been a *cobb* wharf. According to Dr. William Bentley (1914), these wharves "were built of wood, and sunken by rocks," with the word *cobb* derived from the cobblestones used to sink the timber cribs. While this type of wharf was believed to have comprised most of Derby Wharf and the end of Central Wharf (then called Forrester's Wharf), archaeological investigations conducted by Garman et al. (1998), revealed that Derby Wharf was not of cobb construction. In an illustration



*Cross section of stone wall on sunken raft and (at right) a platform built over a dislocated wall*



*Cross section of cobb wharf*

Figure III.4. Construction of a Cobb Wharf from Early Wharf Building, by Edwin Small, SMNHS Publication, 1970.

from 1796, the two wharves look to be constructed completely out of wood with fender piles resting against timber cribs (Small 1970:5; Fig. III.4). Derby Wharf also had stone facing even before the days of commercial stone quarries. Stones were acquired by splitting boulders with heat or wetting wooden pegs or wedges inserted into the crevices of natural rock (Small 1970:6). Bentley attests to this fact when he notes that Elias Hasket Derby hired Joshua Phippen in 1784 to finish the lower east wall of his wharf in stone for a dis-

tance of 667 feet. Later on, the west wall was repaired and faced with 569 feet of stone (Small 1970:5). From 1806 to 1809, Derby's children expanded the wharf threefold for "want of sufficient depth of water," which would be "highly beneficial to the trade of Salem and probably would lead to other important improvements" (Small 1970:5). After this point, there were minimal enhancements made to the wharves of Salem due to the declining trade coming in and out of the port after the Embargo of 1809, and due to

the extreme silting of Salem harbor caused by long wharves that blocked the tidal flow (Small 1970:5-6).

E. H. Derby, William Gray, and Joseph Peabody led the charge for Salem's development of trade with markets in the Far East, but it was Derby who was the most influential merchant in the town. During the Revolution, Derby's privateers had captured 144 British ships, and in this new era of Salem mercantilism his vessels were the most successful, making him one of America's first millionaires (NPS 1990:132). Among the great Derby ships was *Light Horse*, the first U.S. ship sent to Russia, *Grand Turk*, the first to stop at the Isle de France and to sail the dangerous Straits of Malacca at Sumatra, thereby opening the China trade to New England, and *Sultana* and the *Peggy*, the first U.S. ships to visit India (NPS 1990:132). Salem vessels were the first American ships to enter into many Eastern ports from Mocha to Batavia (now Djakarta). Salem merchants valued the East so much that they inscribed the motto "To the Farthest Port of the Rich East" within the city's seal.

By 1807, Salem's fleet consisted of 252 vessels, and the most famous were known throughout New England and the world (NPS 1990:135). Enos Briggs was a well known Salem shipwright, having built Elias Hasket Derby's vessel, the *Grand Turk*, as well as the frigate, *Essex*, that was subsidized by Salem merchants for the fledgling US Navy. This was the pinnacle of Salem's ship-building enterprise, creating the famous East Indiamen trading vessels with rounded barrel bottoms, a vessel well equipped to navigate in and out of Salem's shallow harbor and shallow foreign ports, while still having enough cargo space to make a voyage profitable. Though this design made Salem ships sluggish, they drew less water and were easier to handle, and ultimately safer and financially less risky than the larger ships of the period (NPS 1990:135).

Salem East India ships did not leave home with goods intended for the final port destination, but

rather would have a hold filled with cargo to be traded along the way at several different ports. For example, a ship would sail out of New England with dried fish, salt, beef, butter, wood-ware, mast timber, shingles, tar, spermaceti candles, and ginseng, as well as hard currency. Very long voyages to widely separated destinations were not all that common, with most limited to specific regions that could be visited within the weather cycle of one year. Occasionally vessels made two voyages per year. For example, a Mediterranean voyage could stop at multiple ports in Spain, Italy and Sicily, the Aegean and Turkey. An East India voyage could include the Cape of Good Hope, Isle-De-France (Mauritius), multiple Indian ports, Arabia, Sumatra and Batavia, and possibly Canton. Usually the ships came back to Salem and consolidated cargoes there for re-export to ports where there was a demand for particular goods. Voyages to European ports operated the same way, taking in a series of stops and making the rounds before coming home to Salem, but this was not always the case. The markets and wartime conditions in Napoleon's era had a profound effect on trade with Europe. "Neutrality" was not always the safe pass it was intended to be.

When a ship returned from overseas, the Customs inspectors met it out in the harbor to examine the manifest and compare it to the cargo aboard ship. If everything looked to be in order, a permit to land cargo was issued. The ship would then proceed to the wharf where the cargo was to be off loaded and the Customs officers would weigh, gauge, measure and appraise the cargo for taxation. When the duty was paid, cargo would then be either released to the merchant for transport to private warehouse facilities (not necessarily where the ship was docked) or would be auctioned at the wharf. Cargo was sent to bonded storage (typically to the government's Public Stores warehouse) if it was to be re-exported, or of the merchant put it in bond as collateral for duties owed. Duties paid on goods stored for re-export were refunded when the goods were released for transport to a foreign port. This



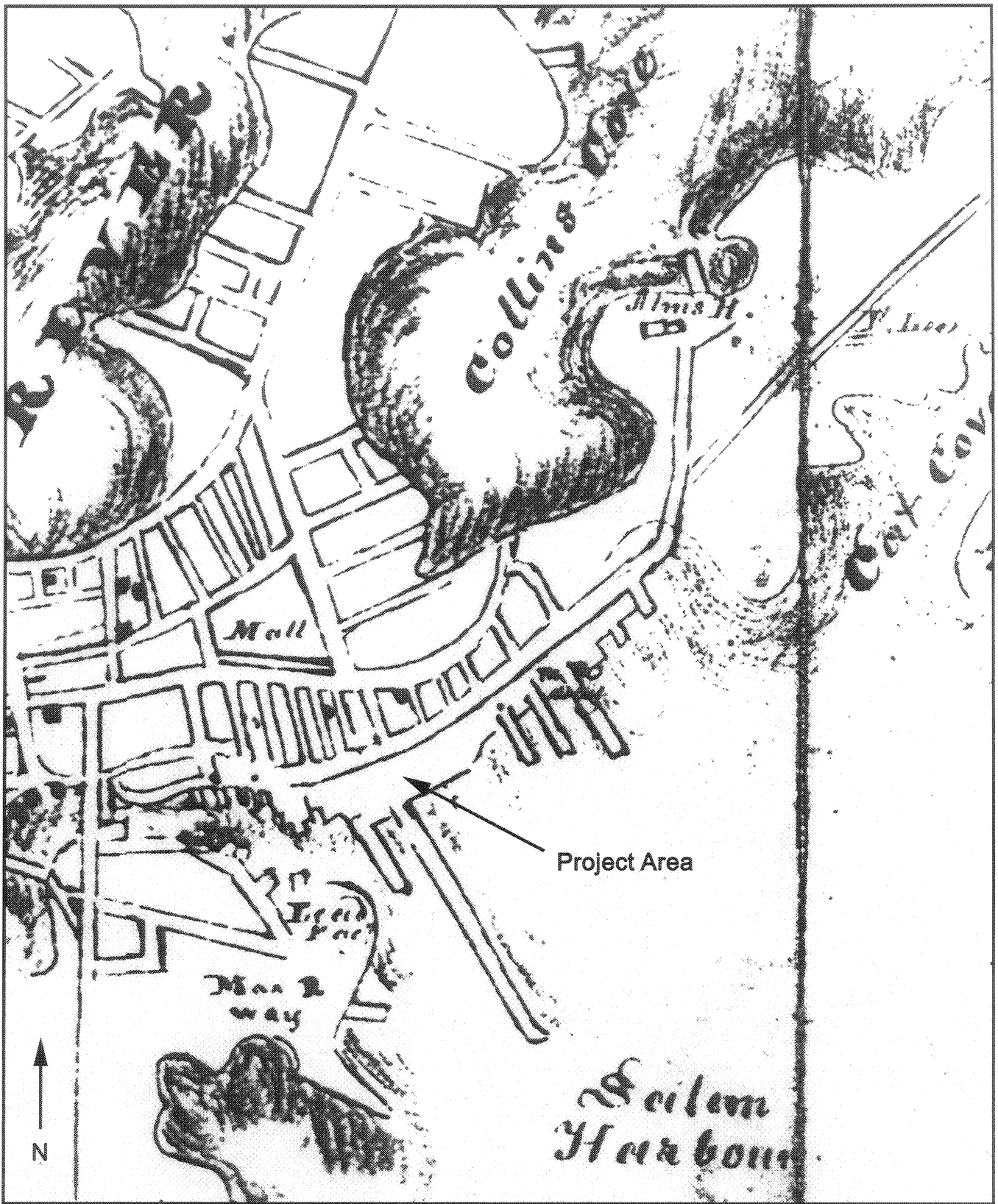


Figure III.5. Detail of Map of Salem, Massachusetts, 1832, by Jonathan P. Saunders (Courtesy Massachusetts Historical Commission) (Scale:1 in = 1/4 mile).

action was known as issuing a “drawback.”

Duties varied widely from product to product and these are documented in federal tariff schedules. Duties collected in Salem amounted to 7.9% of the total customs revenue for the year 1805. Around this time approximately 95% of the federal government’s revenue was derived from custom’s duties. Imported goods included cocoa, sugar, molasses, and cotton from the West Indies; ivory, myrrh, and gold from Africa; tea and silks from China; Castile soap, wines, figs, lemons, and raisins from Spain; cinnamon, cloves, nutmeg, and pepper from the Spice Islands; indigo from the Philippines; logwood dye from Africa; gin, hemp, nails, and cheese from Amsterdam and Hamburg; cottons, sugar, and cheroots from India; prunes and almonds from Marseilles; sailcloth, iron, and cordage from Russia; and coffee and dates from Muscat and Oman (NPS 1990:133). Animals such as horses, camels, and tigers were rarely imported and an elephant was once brought from India. Pepper from Sumatra became one of the most profitable imports, and Salem held a virtual monopoly in this spice.

Salem’s burgeoning overseas trade spilled out into other aspects of Salem life. Merchants and sea captains built fancy Federal-style houses, and developed new areas of the city, such as Chestnut Street, to construct their new homes. This housing boom also helped skilled craftsmen and designers, who worked on the interiors of these mansions (NPS 1990:133). The foremost architect in Salem during this time was Samuel McIntire, a contemporary of Boston’s famous Charles Bulfinch. McIntire is responsible for designing many of the existing structures on Chestnut, Federal, and Essex streets and around Washington Square (NPS 1990:133). These streets became a center for the established and conservative Federalist merchants. Salem’s Republican citizens who supported Thomas Jefferson, however, lived east in the area surrounding the old common that had recently been drained and landscaped. Further east towards the waterfront lived the sailors and wharf workers in

crowded housing blocks (NPS 1990:133).

Unfortunately, Salem’s fortunes would not be long lived. As a result of increasing British and French interference with American commerce during the Napoleonic Wars, President Jefferson in 1807 prohibited all foreign trade in and out of U.S. ports (NPS 1990:134). This embargo, which included the Indies and China trades, had damaging effects on New England’s economy since nearly all of Salem’s fleet and crews were idle, putting one-fifth of Salem’s population out of work. Though there was a temporary lifting of the embargo in 1809 with all countries except Great Britain and France, the War of 1812 with Great Britain resulted in another embargo on foreign trade. Some Salem sea captains participated in privateering and found it profitable, though the British did capture 26 of Salem’s 40 “private armed vessels” (NPS 1990:134). By the end of the war Salem’s economy was starting to change as merchants moved their businesses to Boston, New York, and other larger harbors (NPS 1990:134).

Though Salem never attained its pre embargo economic prestige, it remained a busy port for the next few decades. Even as late as 1825, there were approximately 200 vessels shipping out of Salem, but by this time trade patterns had changed and captains undertook shorter voyages (Fig. III.5). By mid century, siltation made Salem Harbor unnavigable for the larger packet ships that had come to be used for the longer East Indies, China, California, and the South Seas voyages. As a result, much of this trade shifted to larger deep-water ports, particularly Boston, which had the added advantage of links to railroad transport (NPS 1990:130, 134). Salem merchants shifted their attention to markets in South America, the Maritime Provinces of Canada, California, the American Northwest, and the South Sea Islands (NPS 1990:134). The goods brought back were used in the nascent Salem industries, such as hides and cotton used to supply the shoe and textile industries and gum copal from Zanzibar that was processed into a base for

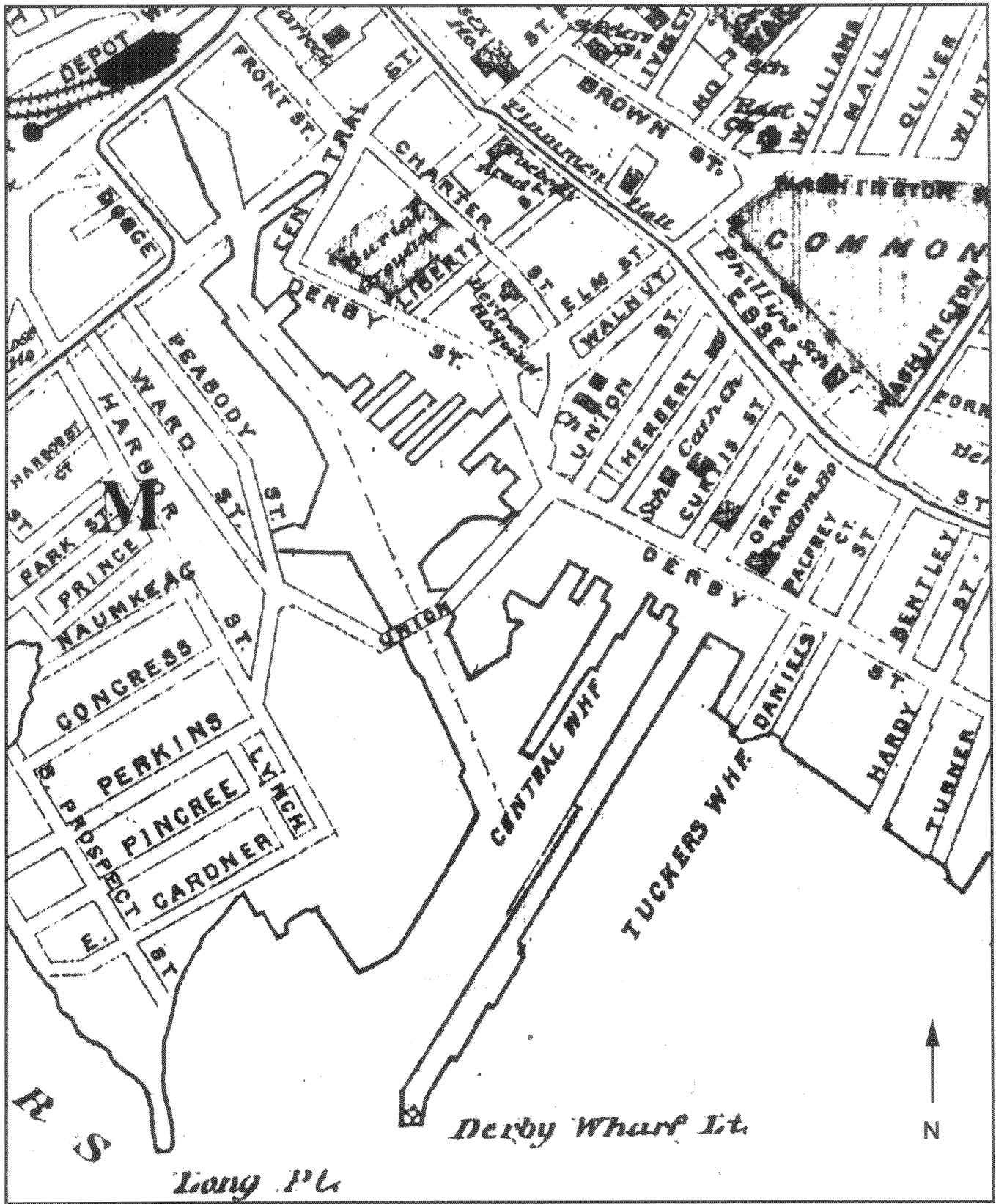


Figure III.6. Detail of City of Salem, Mass. (Atlas of Massachusetts, Essex County 1884) (Scale: 1/2 in = 1000 ft).

varnish (NPS 1990:134). In 1839, for example, the Naumkeag Steam Cotton Company was constructed on the site of Briggs' shipyard. Ships imported raw cotton that was made into textiles, and this product was shipped out for distribution along the coast as well as around the world (Mrozowski et al. 1988:62). In 1838, the Eastern Railroad was extended from Boston to Salem, a sign that rail was replacing ships in the coastal trade. Salem's commerce between 1815 and 1850 still involved the Sumatran pepper trade and voyages to the West Indies, South America, the Mediterranean and the Baltic.

### 3. Salem's Industrial Age ca. 1844-1915

Coastal transport of goods remained an important component of Salem's nineteenth-century economy due in part to the increasing use of canals and railroads that shuttled these goods inland. As a result of this activity, Salem's wharves were used extensively to warehouse goods such as stone, coal, wood and fish from the commercial fishing industry (Friedlander 1991:25). Local manufacturing during this period came to be dominated by the leather and textile industries (Friedlander 1991:28). Tanning was first conducted in 1634 when Philemon Dickinson was granted land to make tan-pits and dress goatskins and hides (Phillips 1933:99). This effort had expanded by the 1760s to four tanneries, all based at *Blubber Hollow*, the filled-in basin of the North River, which became the center of Salem's hide and tanning industry. This hollow was named for the odor of fish and whale oils that were used in the tanning process. Waste products from this industry were discarded along with other refuse into the river (NPS, 1990: 130). By 1800 the supply of leather from local farms could not meet demand, and it was the maritime industry that aided leather production through the importation of raw hides from suppliers as far away as South America. Salem tanneries also were a center for distribution of raw materials to cobbler shops in Danvers, Peabody, Lynn, and Haverhill, and in the 1830s-40s Salem became a center for rubber overshoes using pure gum rubbers from Brazil. In addition, around 35% of all tanners and curri-

ers in Massachusetts were in the Salem/South Danvers area. By the second half of the nineteenth century 59 leather treatment factories produced tanned and curried leather worth more than \$3 million annually.

The local availability of leather encouraged the manufacture of shoes, initially through small-scale home industries. Shoe dealers provided raw materials and then collected the finished work, paying per shoe. Both men and women performed this work, but by the early eighteenth century men, in particular, combined their efforts and created small shoe shops known as *ten footers* (Friedlander 1991:129). Shoemaking remained a handicraft task performed on a *domestic* or *putting out* system until the 1840s when large scale factories began production. Shoe manufacturing became the leading industry by 1905 with 42 factories producing shoes valued at over \$4 million (NPS 1990:130).

Textile production became an important industry in Salem when the Naumkeag Steam Cotton Company was established in 1839. By 1847 the Naumkeag mill, built on the site of a former fish drying area, was one of the largest factories in the country, with 600 workers. The increase in domestic clothing manufacture in Salem and other Essex County towns brought about a surge in importation of wool from western Turkey and South America, as well as cotton from the Gulf ports and Charleston (NPS, 1990: 130). These raw materials, along with coal used to power the factories, were brought in through Salem Harbor and manufactured textiles were shipped out of Salem around the world. By the mid 1860s, jeans, sheetings, shirtings, and flannel worth almost \$2 million were being produced there (NPS 1990:130). Other waterfront activities by mid-century included the shipping of small-scale manufactured goods, craft activities including coopering and sail making, and importation and storage of bulk goods including coal (Friedlander et al. 1991:29).

Salem's industrial activity played a major role in

influencing the town's demographic makeup. The availability of jobs at the Naumkeag Steam Cotton Mill in the 1840s, in particular, attracted French Canadian workers. Boardinghouses were constructed in the mill area and Irish immigrants began to arrive on the Salem waterfront after 1850. Over the last quarter of the nineteenth century, the wharf area began to move towards tenement housing and bulk storage, a reflection of the increased immigration and industrialization in the city. The Derby Wharf Corporation, originally formed after Elias Hasket Derby's death and family controlled until 1851, concentrated its resources on commercial fishing and probably established a fish processing plant on the wharf by 1869 (Friedlander et al. 1991:34). The waterfront was, thus, transformed from a commercial trade center to a landscape dominated by bulk good storage and processing reflective of industry (Friedlander et al. 1991:34). The occupational history of buildings along Derby Street, discussed in the next section, is also an indicator of this transition. The eighteenth-century buildings and homes were subdivided into multifamily houses or tenement units. By the end of the nineteenth century additional tenement buildings were being constructed, most notably at the end of Custom House Court in the rear area behind the Hawkes House (Friedlander et al. 1991:37) (Fig. III.6).

#### **4. Salem in the Twentieth Century**

By the turn of the century the Salem waterfront was ethnically diverse. What had come to be dominated by the Irish beginning around the mid nineteenth century now contained Polish immigrants along with Italians, Jews and Russians. Salem, thus, took on a new role as provider of the initial stage of acculturation for these newcomers. A number of social organizations still exist today in Salem that provided aid to these immigrant groups in the early 20<sup>th</sup> century, such as the Russian Aid Society, St. Joseph's Polish Society, the Polish Legion, the Emmerton Settlement House, and the Russian Orthodox Church (NPS 1990:130). The Salem waterfront was partially filled around Mill Pond and the North and South rivers to provide new land for residential, trans-

portation-related, and industrial development (NPS 1990:130).

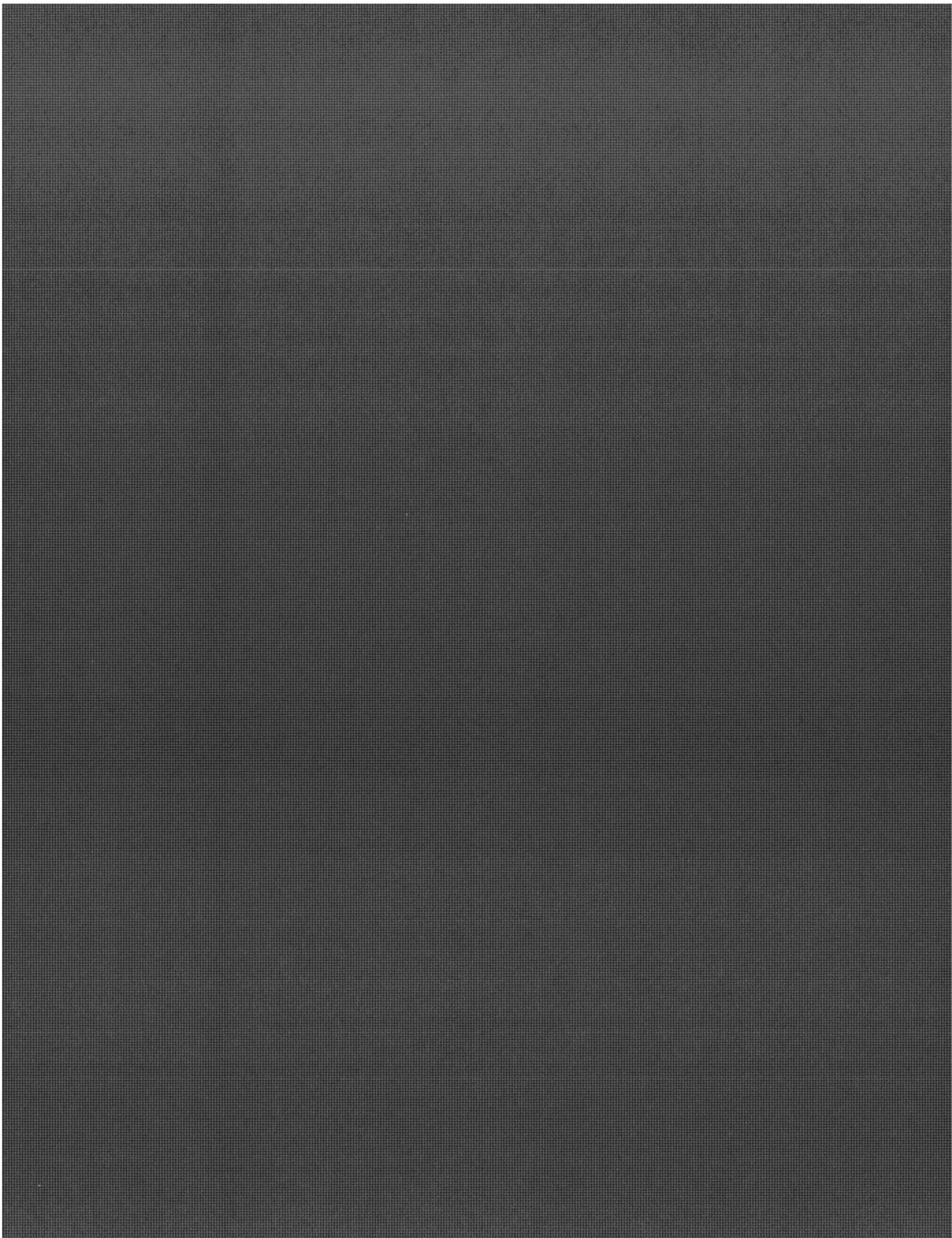
The businesses along Derby Street came to be completely unrelated to the maritime industries of the 17<sup>th</sup> to mid-19<sup>th</sup> centuries, and show the complete transformation of Salem to an urban city (Friedlander et al. 1991:70). These establishments included Kotarski's pool hall on the opposite side of the Hawkes House, the Salem Bakery Company at the head of Derby Wharf, and other dry goods and corner stores (Friedlander et al. 1991:70). Derby Wharf came under the control of the Boston and Northern Street Railway Company, and the old warehouses were used for storage and dismantling of old railway cars.

In 1914, a great fire that began on June 25<sup>th</sup> in Blubber Hollow, the industrial section of Salem packed with tanneries, spread rapidly throughout the city and was finally stopped at the head of Central Wharf before any damage came to the Custom House (Friedlander et al. 1991:70). The fire decimated the center of the city, destroyed the Naumkeag Cotton Mill, 407 businesses, and 2,718 homes (Holmes 1986:11). Most of Derby Wharf was abandoned by this time, and after the fire it was unattended and subsequently deterioration set in. Friedlander et al. (1991:70) cites an oral account of an individual swimming in the 1920s off of the old pilings that demonstrates how decrepit Derby Wharf had become. This person had been caught at the lighthouse when the tide came in and had to remain at that point until the tide went out (Friedlander et al. 1991:70). Central Wharf, on the other hand, was in better condition due to its continual use by lobstermen. The tenement houses along Kosciusko Street and behind the Hawkes House were not harmed by the fire, and were occupied until 1936, when they were acquired by the National Park Service.

#### **E. History of the Salem Maritime National Historic Site 1927-Present**

In 1927, Derby Wharf, owned by the Eastern Massachusetts Street Railway Company, was







dilapidated and virtually unused. All that remained on the wharf was “the old sail loft building,” which planners intended to demolish as it was deemed unsafe (Friedlander et al. 1991:153). The head of Derby Wharf belonged to the Kotarski family and was covered by tenement houses. Hatch’s Wharf, for many years the property of the Home for Aged Women, was vacant. At this time, several members of the Essex Institute’s board of trustees asked then Treasurer Henry W. Belknap to explore the possibility of acquiring Derby Wharf and turning it over to the City of Salem for use as a public park. Belknap was successful in launching a fund-raising campaign, but the project was abandoned in October 1928 when it was learned that the stone walls of the wharf had become “so badly undermined and ruinous that it was estimated an expense of about \$300,000 would be entailed in reconstruction” (Friedlander et al. 1991:153). Members of the Peabody Museum (today the Peabody Essex Museum) also tried to raise money to preserve the wharf, but the Depression thwarted their attempt.

Significant progress in preserving the wharf area, however, was made in the late 1930s. The Salem Planning Board proposed using Salem emergency relief funds in December 1933 to acquire Derby Wharf, but failed in its attempt. Salem resident Harlan P. Kelsey, then presented the idea of creating a Derby Wharf Park in September 1935. Under the new Historic Sites Act of 1935, he sought funds from the Department of the Interior (Friedlander et al. 1991:153). Thanks in part to Mr. Kelsey’s work, the wharf area was designated the first National Historic Site created under the New Deal legislation by Secretary Harold Ickes on March 17, 1938. The park property consisted of six acres valued at about \$125,000, containing “seventeen unsightly buildings used as tenements, stores, and garages” that were soon demolished. The property did not include the Narbonne House lot, St. Joseph Hall, or 18-22 Kosciusko Street that are part of the park today (Friedlander et al. 1991:153). In addition, the U.S. Customs Service was to vacate their offices in the Custom House,

which they did on June 30, 1937.

Almost immediately, the Park Service set their plan of improvements in motion even though the federal government did not formally create the park until nearly a year later. This plan was to preserve the four buildings that symbolized the eighteenth and nineteenth century waterfront as well as stabilize the wharves to prevent further deterioration (Friedlander et al. 1991:157). Temporary repairs were made to the Custom House, while architects toured the building to assess its condition and potential re-use. In August, the Public Works Administration allocated \$110,000 toward the project, and the buildings behind the Hawkes House, Custom House Place, and the tenements south of Derby Street at the head of Derby Wharf were razed. In addition, three structures south of Derby Street were moved by the city in November and December of 1937. The store at the southeast corner of the Derby House lot was also taken down, and the last surviving buildings at the head of Derby Wharf were demolished by January 1938 (Friedlander et al. 1991:157). In March 1938, a new foundation for the Rum Shop/West India Goods Store was poured and by May it had been moved back to its original location at the corner of Derby Street and Palfrey Court (Friedlander 1991:157).

The wharf was reconstructed during the spring and summer of 1938, involving excavating foundations for approximately 400 feet of sea wall that exposed “part of the old sea-wall believed to have been laid in 1754 but concealed since about 1904” (Friedlander et al. 1991:157). The area was back filled using material recovered from several sources including soil dredged from areas immediately east and west of the wharf as well as from the rear yards of the structures north of Derby Street. Removal of soil from these areas to fill the wharf likely had a negative impact on archaeological resources in the rear yard areas of the Derby Street houses and on potential submerged resources in the wharf area (Friedlander et al. 1991:189).

Tenants of the buildings at the head of both Derby and Central wharves resisted vacating these areas, with the strongest opposition from Central Wharf occupants. By May 1938, the brick warehouse on Central Wharf was cleared, providing the park with control of the entrance to the wharf. Two groups of fishermen, however, continued to work out of the wharf pending action on special use permits (Friedlander et al. 1991:189). In December the brick warehouse, a pump house, lobster-pound shed, icehouse, and two-and-one-half story wooden warehouse on Central Wharf were demolished. The brick storehouse containing a carpenters' workshop was retained until 1948 (Friedlander et al. 1991:189).

In October 1938, funds for the reconstruction of Central Wharf were appropriated and work began with the driving of piles along 850 feet of the east side of the wharf. The Derby Wharf project was closed in November 1938, but construction proceeded at Central Wharf through the winter, while plans were made for a parking area south of Derby Street (Friedlander 1991:189). Winter weather slowed down work at Central Wharf, and at the end of March 1939, "the Wharf stood a little better than one-half completed" (Friedlander 1991:189). Work was completed by the spring and included a marine railway for the launching of small boats. The Navy leased portions of Central Wharf and constructed a brick building on the wharf in 1947. In 1975, more work was done, including removal of 500 feet of a 1939 bulkhead and replacing it with steel sheet piling and timber fender piles (Friedlander et al. 1991:199).

Landscaping of the rest of the park began in 1938. Brick sidewalks for pedestrian access were constructed for the Custom House and Hawkes House, and fences at the rear of the buildings north of Derby Street were put up in December, establishing "the unity of the group of buildings north of Derby Street," while screening the property from neighbors (Friedlander et al. 1991:199). In May, ornamental trees and shrubs were plant-

ed, including the planting of two 20-foot horse chestnut trees in front of the Derby House and a 60-foot elm in front of the Hawkes House. Cobblestones were then laid in Custom House Court in January. Landscaping continued in the 1940s and ivy was removed from the front of the Derby House in 1945 (Friedlander et al. 1991:199).

The park has changed significantly since 1945, growing to nine acres as a result of acquisition of the Narbonne House (1963), St. Joseph Hall (1988), and the lots at 18-22 Kosciusko Street, along with the resolution of a boundary defect resulting in the purchase of 0.15 acres in 1978 (92 Stat. 3487, P.L. 95-625) (Friedlander et al. 1991:199) (Fig. III.7). The garage/carriage house behind the Narbonne House was demolished in August 1965. Continual maintenance around the site has been necessary due to problems resulting from erosion of the waterfront area. The surface of Derby Wharf, for example, was completely washed away during a winter storm in 1978 (Friedlander et al. 1991:200). The parking lot on the Derby Wharf lawn was eliminated and relocated to Central Wharf. The Naval Reserve Building was removed from Central Wharf in the 1970s. In 1987, park offices were moved to the Hawkes House and the Custom House reopened with period rooms in place. Historic structure studies and archaeological investigations took place in the 1970s and 1980s, with excavations at the Narbonne House beginning in 1974.

The last two decades have seen continued improvements to SAMA. Further archaeological investigations on Derby and Central Wharf were conducted in 1991, 1992, 1998, and 2004. A new Visitor Center in downtown Salem behind the remnants of the Salem Armory (now Armory Park) was completed in 1994. In May 1997 Salem Maritime and Saugus Iron Works were merged administratively, but each site continues to receive a separate annual appropriation. The construction of *Friendship*, a replica of a 1797 East Indiaman, has created a new focal point for the site's interpretation of Salem's East India

trade. St. Joseph Hall, also known as the Polish Club, has been rehabilitated and includes maintenance facilities in the basement and first floor, education programs and community meeting space on the second floor, and park offices on the third floor.

Today, SAMA's Mission Statement grows out of the 1938 Secretarial Order that established the site and the 1996 legislation (P.L. 104-333) designating the Essex National Heritage Area. The park seeks to preserve and interpret structures and lands along the waterfront of Salem that document the development of American international maritime trade from the colonial period to the mid-nineteenth century. Also, the site assists in the interpretation and preservation of resources

related to the three themes of the Essex National Heritage Area: the early settlement of the United States, its emergence as a maritime power, and its subsequent industrial development. The site's public buildings, private homes, and wharves form the best-preserved and most complete example of the maritime infrastructure that evolved to serve the extensive world trade network that was critical to the development of the nation. The park is also the focal point of the Essex National Heritage Area, linking the thousands of historic places in Essex County related to three primary historic themes: colonial settlement, maritime trade, and early industrialization that was financed by maritime capital. A yearly account of park activity between 1927 and 1990 is presented by Chase-Harrell et al. 1993).

#### IV. PREVIOUS ARCHAEOLOGICAL RESEARCH

##### A. Summary and Evaluation of Previous Archaeological Surveys and Reports

A total of ten reports are reviewed below. These consist of both formal compliance related investigations and in-house reports documenting small scale excavations performed in association with utility installation/removal or restoration of landscape or architectural features. Reviews are presented in chronological order.

**Report Title:** *Report on Archaeological Investigation, Derby House Property, Salem Maritime National Historic Site*

**Authors:** Edwin W. Small, Oscar S. Bray, and Stuart M. Barnette

**Date of Report:** 1938

**Date of Fieldwork:** July 25-26, 1938

**Project Goals:** Informal exploratory excavations were conducted in the front yard areas of the Derby and Hawkes houses to identify intact architectural and landscape elements.

**Methods:** Investigations consisted of a series of trenches intended to locate the original 1762 fenceline in front of the two structures as well as the original stone steps located in front of the Hawkes House (Fig. IV.1). Seven trenches were excavated at the Derby House; the exact number of trenches excavated at the Hawkes House could not be determined from what was presented in the report. Trenches were excavated to a depth of 2-6 ft. below surface and excavated material was not screened.

**Results:** The authors suggest that all original structural material associated with the Derby and Hawkes Houses was disturbed during later construction episodes associated with the front yard areas.

**Recommendations:** Because this was not a management document, no recommendations were provided.

**Evaluation:** This report is very short and provides limited detailed information on the explorations conducted in front of the Derby and

Hawkes Houses.

**Report Title:** *Excavations at Central Wharf, Salem Maritime National Historic Site, Massachusetts*

**Author:** Geoffrey P. Moran and Steven Horvath

**Date of Report:** 1980

**Date of Fieldwork:** 1973 and 1975

**Project Goals:** The 1973 Master Plan for the development of SAMA included the extensive rebuilding of Central Wharf, together with the partial demolition and renovation of buildings associated with the Naval Reserve Training Center on the wharf. Archaeological investigation involved the monitoring of excavations during the rebuilding of Central Wharf.

**Methods:** In 1973, six backhoe trenches were excavated to investigate the integrity of Central Wharf (Fig. IV.2). The first trench (Operation 1C6) was placed between a garage and the north wing of the former Naval Reserve building in an attempt to locate the west bulkhead of the Forrester Wharf as it appeared on the maps of 1805 through 1820. The second trench (Operation 1C5) was designed to locate the southwest corner of Forrester's Wharf as it appeared by 1805, and examine its juncture with the extension of 1818. The third trench (Operation 1C4) was projected with 1C5 to explore the juncture of the original "solid" wharf on the 1805 map with the "cobb" wharf as expanded by 1818. Trench four (Operation 1C3) was located about 245 ft. south of the sheet pile bulkhead along a section of the east wall where the 1939 bulkhead had given way, and washed out fill revealed the tops of the 1896-1897 pilings. Trench five (Operation 1C2) was located approximately 340 ft. south of the sheet pile bulkhead to avoid water and electric utilities. The final trench (Operation 1C1) was designed to continue looking for the earlier portions of Central Wharf. In 1975, seven excavation trenches were placed to confirm the earlier findings revealed in 1973. It could not be determined from the report the exact location, length, width,

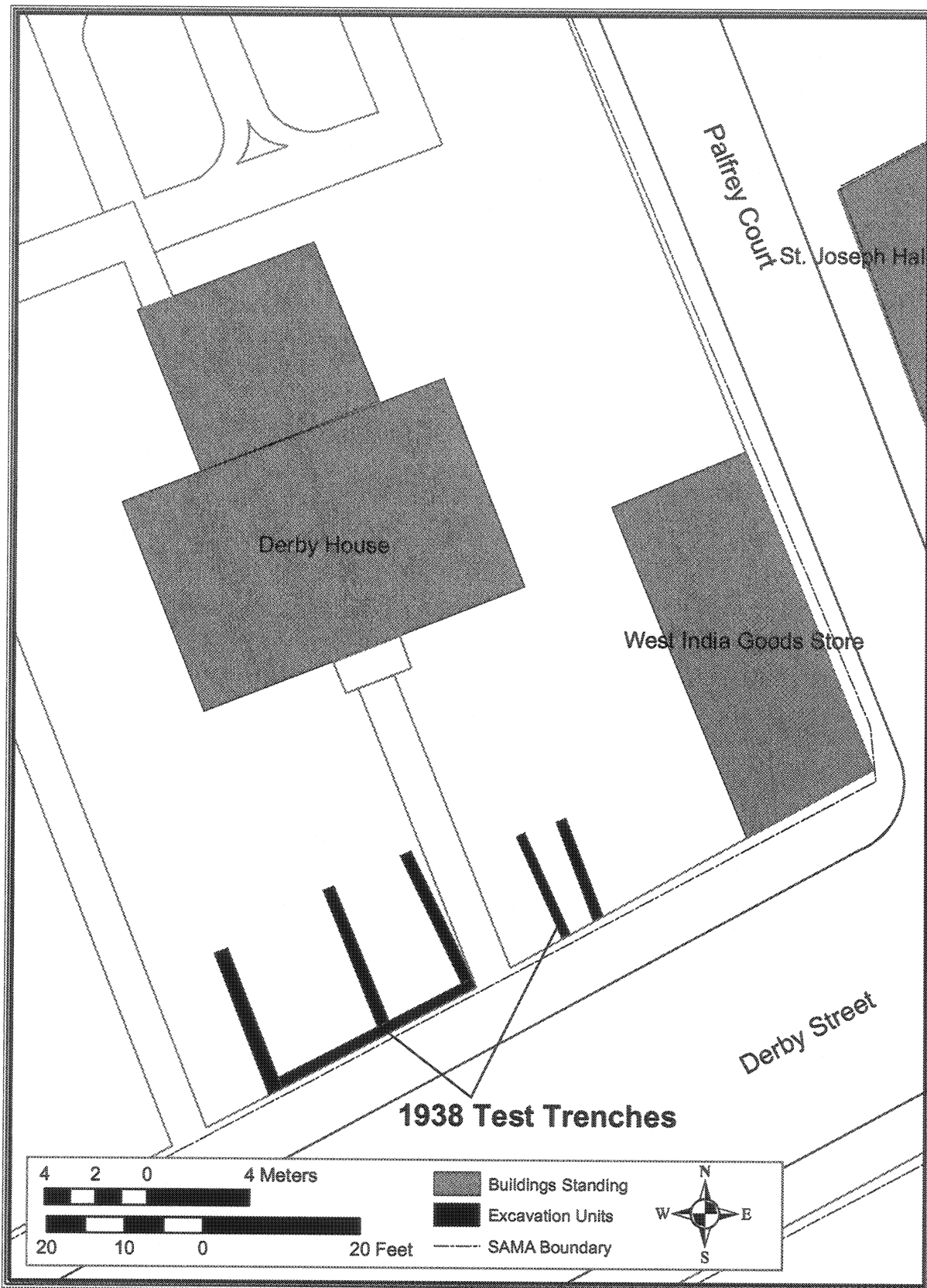


Figure IV.1. Excavation Areas on the Derby House Lot.

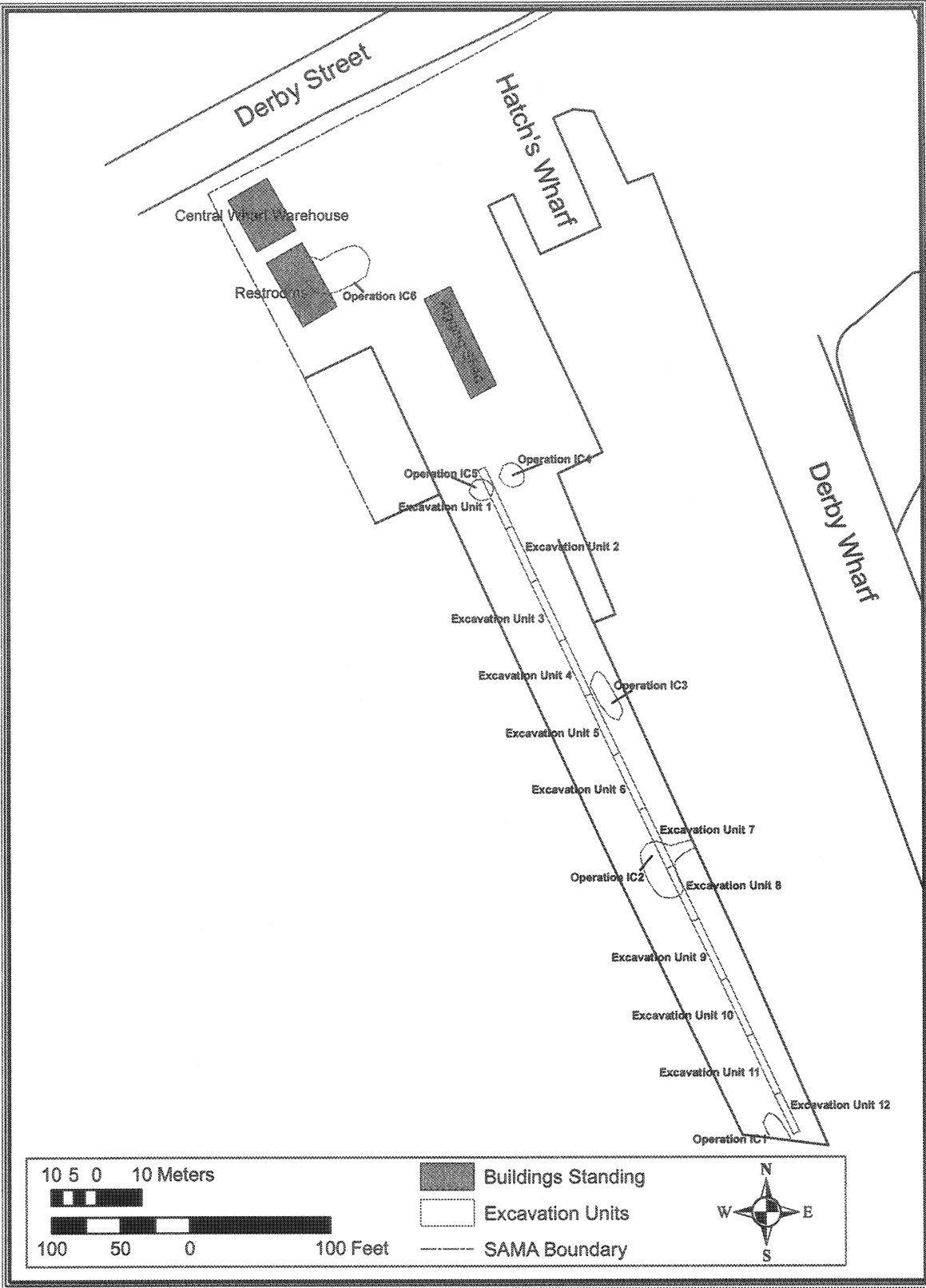


Figure IV.2. Excavation Areas on Central Wharf.



or depth of the trenches.

**Results:** The wharf excavations were hindered by the presence of steel tie-rods supporting both the 1897 and 1939 bulkheads, and by utility lines that passed through the area from various periods. Mobility of the backhoe was often restricted by the presence of outbuildings and the wings of the Naval Reserve Center, which have since been demolished. Great quantities of harbor dredgings, oyster shells, and coal ash containing late nineteenth-century ceramics and medicine bottles were recovered in the top portions of the excavation trenches.

Excavation at 1C1 revealed a heavy concrete cap at about two feet below grade. This concrete cap provided protection to the ca.1805 portion of the wharf. 1C2 located the only evidence of the “cobb” wharf built by Simon Forrester between 1805 and 1818. At about five feet below grade, 1C4 excavations revealed several pilings that were probably the supports for some of the nineteenth-century warehouses that had projected beyond the wharf’s east side. Leather trimmings, identified as wasters from shoe manufacturing, potentially connected to the use of Forrester’s warehouse as a shoe factory during the early twentieth-century, were also recovered from 1C4. The excavations at 1C5 revealed a diagonal wharf brace at about five feet below grade, but these structural timbers were disturbed by installation of a nearby underground storage tank and utility lines.

Trenching conducted in 1975 revealed three features. The first feature consisted of an extensive timber structure composed of rough-hewn logs that extended as long as 225 ft. This feature was encountered in excavation trench four at a depth of 7.9 ft. This feature was interpreted as being part of the cribwork that served as the foundation for the 1820 “cobb” wharf. The second feature was encountered at a depth of 6.2 ft. in excavation trench eight and consisted of a section of a timber plank floor. The plank flooring and associated log structure is interpreted as a section of the ballast floor-cribwork of the 1820 “cobb”

wharf. The third feature encountered consisted of four independent timbers, located between 4-5 ft. below the surface in excavation trench four.

**Recommendations:** The results of testing on Central Wharf in 1973 suggest that large portions of Central Wharf have been disturbed due to the construction of the Naval Reserve building in 1947. Monitoring in 1975 confirmed this observation, however, while the upper deposits on the wharf may have been removed from their original contexts, the lower portions of the wharf that comprise the superstructure appear to remain intact. Therefore, the excavations revealed significant and well preserved remains of late eighteenth and early nineteenth-century wharves.

**Evaluation:** This report presents the results of archaeological monitoring and testing that took place on Central Wharf during the demolition of several structures that had impacted archaeological deposits. This archaeological report is part of a larger architectural report prepared for SAMA. The report attempts to draw conclusions concerning the construction techniques of earlier and later building phases of Central Wharf, specifically the comparison and examination of “solid” and “cobb” wharves and how those differences may be seen in the wharf.

**Report Title:** *Archaeological Investigations at the Narbonne House, Salem Maritime National Historic Site, Massachusetts*

**Authors:** Geoffrey P. Moran, Edward F. Zimmer, and Anne E. Yentsch

**Date of Report:** 1982

**Date of Fieldwork:** 1973-1975

**Project Goals:** Archaeological testing was conducted during three separate field seasons at the Narbonne House. The initial goal of the investigation was designed to answer certain questions concerning building dates and the sequence of additions that were not apparent from either documentary records or surviving architectural fabric. The features located during the first field season provided the basis for a new research design. While important questions such as the sequence of structural changes to the house had

been answered, the second research goal was designed to recover data concerning the broader patterns of domestic occupancy of the entire site from the 17th to the 20th centuries. Three field seasons included the excavation of numerous features, the most important being a first period lean-to foundation, cobblestone driveway, dairy, well, privies, and trash pits.

**Methods:** Over the span of two years (1973-1975), nine operations were performed on the Narbonne house site with varying degrees of excavation (Fig. IV.3). For Operation 1 (located on the surface beneath the ell floorboards) five 4.5 ft x 6.0 ft units were excavated in 1973 and were designated as suboperations A, C, E, K, and M. In the area designated as Operation 2, a considerable portion of the back yard was excavated in 1973 and 1975 consisting of fourteen suboperations using a grid system of four 10 ft x 10 ft. squares. Excavated in 1973, Operation 3 consists of the area contiguous with and immediately to the right of the lean-to. In Operation 3, eight suboperations were excavated with four completed during the first field season measuring 10 by 3 ft. in size. Operation 4, excavated in 1974, consists of three units located between the ell and the brick walk. As Moran et al. (1982:8) noted, the purpose of the excavations in this area was to investigate the builders' trenches, which resulted in the excavation of four suboperations: A, B, C, and G. In 1973, Operation 5 involved the placement and excavation of two test trenches; the first trench runs north-south through the entire yard, while the second trench runs east-west, bisecting the first trench. A total of eleven suboperations (A through M) were excavated for Operation 5. Operation 6, excavated in 1974, consisted of two suboperations located along the west property line of the Narbonne house. No discussion for Operation 7 could be found in the report. Moran et al. (1982:9, 13-14) note that suboperation and level designations were assigned to fifteen back-dirt piles. As a result, the soil from beneath the lean-to floorboards that was removed by the building contractors in 1973 was sifted as Operation 8. Operation 9 is associated with the

easternmost area of the Narbonne house property excavated in 1975 (Moran et al. 1982:6). A total of 17 suboperations were dug in this location.

**Results:** Several intact archaeological deposits were identified and excavated during the course of the three field seasons at the Narbonne House. Within the gambrel-roofed ell structure, excavations identified a builder's trench and foundation remains associated with the standing structure as well as a paved cobble surface that predates the ell's construction. Remains of a Native American shell midden was also found in backdirt removed by contractors.

**Recommendations:** The results of three field seasons of archaeological investigations at the Narbonne House have shown that a large number of intact archaeological features and deposits were encountered and excavated. Further work recommended by Moran et al. (1982:187-188) for house and yard areas consists of two areas in the rear yard: 1) A large trash deposit was located in feature 4 during excavations at the site, but recovery of both structural information and additional intact deposits have been prevented because of the location of a brick path; and 2) further testing should be done along the western property line to determine whether any other trash pits or privies remain intact in those locations.

**Evaluation:** This report serves as an excellent synthesis of the three field seasons of archaeological investigation conducted at the Narbonne House site. The report builds on a preliminary report submitted when the archaeological fieldwork was completed (Moran 1975) as well as on secondary research projects associated with the site (Moran 1976).

**Report Title:** *Archaeological Salvage, Front Street, Salem Maritime National Historic Site, Salem, Massachusetts*

**Author:** Audrey R. Marie

**Date of Report:** 1981

**Date of Fieldwork:** 1977

**Project Goals:** Buildings 31 and 33 (see Friedlander et al. 1991) were relocated from their

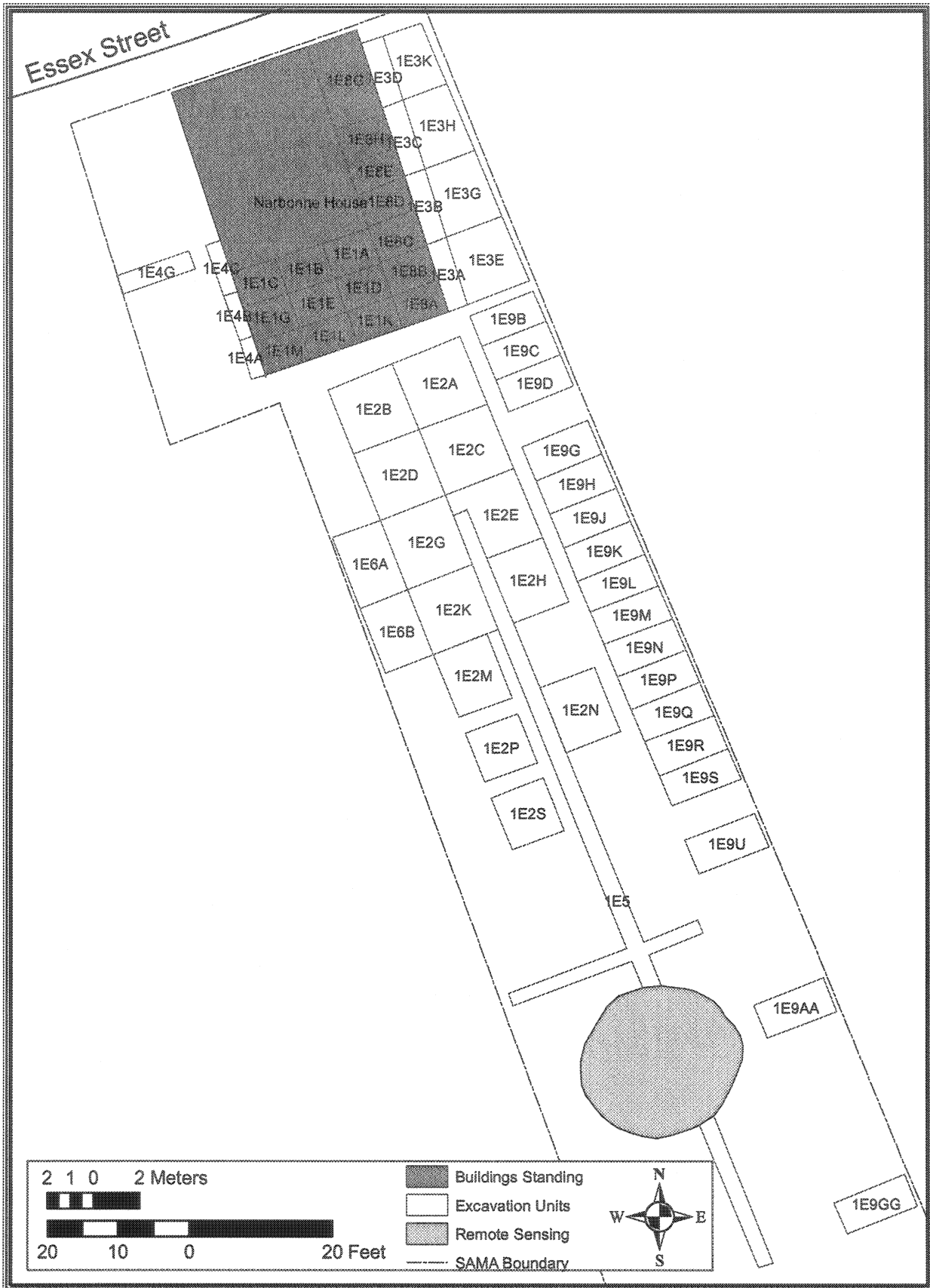


Figure IV.3. Excavation Areas on the Narbonne House Lot.

original Front Street location to Derby Wharf in 1977 to aid interpretation of the park by serving as examples of Derby Wharf's early nineteenth-century waterfront warehouses. The major objective of the archaeological investigation was to assess the degree of similarity of the below grade structural characteristics to available documentation on the original wharf warehouses. The effort included the reconstruction of the original foundation wall on top of a new slab. Vandals burned one of the warehouses in 1981 and the NPS covered the slab and the foundation with clean yellow sand fill (Garman et al. 1998).

**Methods:** The first phase of excavation consisted of two trenches, designated Trench A and Trench C. Trench A, measuring 4 ft. by 5 ft., was located against the south foundation wall in the cellar of No. 33. Trench C consisted of two 5 ft. by 3.5 ft. units in the crawl space below Building 31. Phase II investigated the south foundation wall of Building 31. Excavations were initiated west of the exposed surface of the entryway and immediately east of the remaining above-grade foundation stone. The third Phase of excavations focused on the north foundation wall of Building 33.

**Results:** Archaeological investigations and historical research were used to support an interpretation that Buildings 31 and 33 should be interpreted as early nineteenth-century wholesale and retail stores upon their relocation to Derby Wharf. The archaeological data revealed specific functional and chronological relationships between the cellar soil deposits, the underlying timber cribbing and granite foundation walls.

**Recommendations:** Not being a management document, the report did not provide recommendations.

**Evaluation:** The report represents a synthesis and interpretation of archaeological data from three phases of excavations at the two building sites. The scope of the survey included detailed research questions and artifact analysis associated with the investigation of the historical context of the two early nineteenth-century warehouses.

**Report Title:** *Preliminary Report of Archaeological Salvage Investigations in the Bonded Warehouse Backyard*

**Author:** Thomas Schley

**Date of Report:** 1993

**Date of Fieldwork:** November 10-15, 1993; August 29, 1994

**Project Goals:** Definition of archaeological features and artifact collection was conducted after the removal of underground oil tanks located immediately north of the Public Stores building. Later monitoring of the same area was also conducted for the installation of footings for a hand-capped accessible entrance ramp.

**Methods:** Two large oil tanks were removed from the rear yard area of the Public Stores and Custom House (Fig. IV.4). An archaeologist was not present at the time of the removal, but the next day park historian John Frayler observed artifacts in the pit and proceeded to make a collection of the material and to define two features in the south wall of the tank removal area. The features were not excavated. As the utility trench was backfilled, the intact archaeological deposits were stabilized using layers of plywood, plastic, p-stone, and earth with the intention of making the features more accessible should future archaeological testing of the site take place.

**Results:** Two archaeological features were encountered during oil tank removal in the yard area immediately behind the Public Stores and Custom House. The first feature consisted of a trash pit possibly dating to the middle of the eighteenth century, located approximately 6.7 m (22 ft) north of the Public Stores northeast corner. The bottom of the feature is located approximately 90 in. below the present ground surface and measures approximately 50 in. from top to bottom and 65 in. from east to west. The top of the feature varies in depth from 11 to 17 inches below the present ground surface.

The second feature consisted of the possible remains of a filled-in cellar hole dating to the late eighteenth or the beginning of the nineteenth-cen-

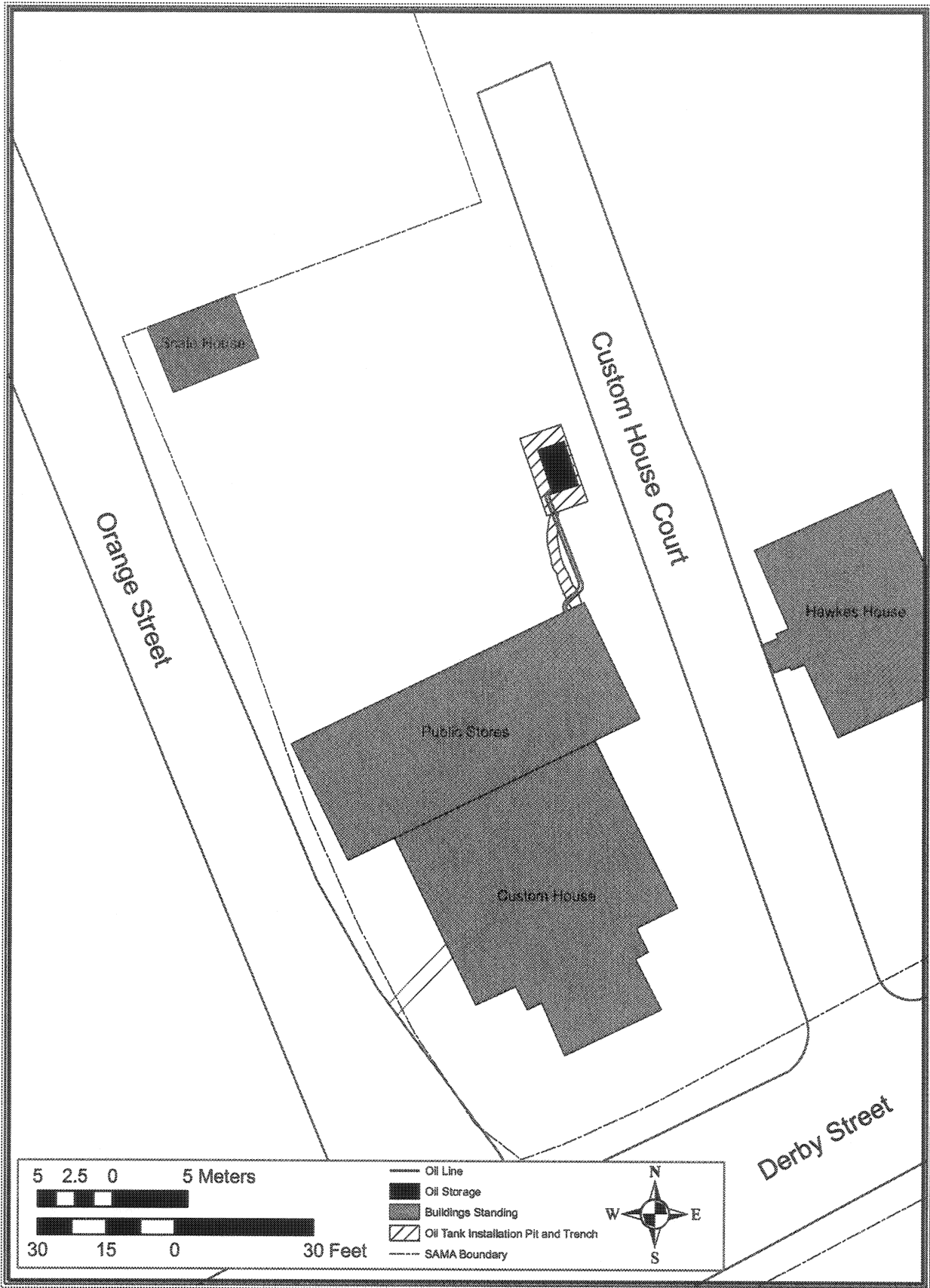


Figure IV.4. Oil Tank Disturbance Area on the Public Stores Lot.

tury. The feature is located approximately 90 in. below the present ground surface and is comprised of a dark cultural horizon running north to south for approximately 16 ft. The cellar hole potentially predates the year 1805 because a woodshed is known to have covered the area by that time (Friedlander et al. 1991). The author suggests that the cellar hole may have been either filled or utilized as a convenient storage area under the woodshed.

**Recommendations:** The report recommends that site management of the yard should take into consideration not only the two known archaeological site locations, but also the spread of backdirt from the tank pit over the surface of the yard. The yard area behind the Public Stores and Custom House are considered to have high archaeological potential and archaeological excavation should be conducted before future construction projects.

**Evaluation:** The report presents a clear and concise summary of the findings of a cultural resource management survey that was conducted in response to impacts caused by the removal of oil tanks at SAMA. Artifact summaries were presented without any extensive analysis. Conclusions were made concerning intact archaeological deposits and a plan was implemented to preserve those remains for future archaeological recovery.

**Report Title:** *Salem Maritime National Historic Site, Terrestrial and Marine Archaeological Remote Sensing and Archaeological Monitoring*

**Authors:** Michael L. Alterman, Bruce Bevan, and J. Lee Cox, Jr.

**Date of Report:** 1995

**Date of Fieldwork:** June and July, 1990; May, 1992

**Project Goals:** A terrestrial and marine remote sensing and archaeological ground truthing survey was undertaken at SAMA by the Cultural Resource Group of Louis Berger & Associates, Inc. (LBA) to locate and identify any intact archaeological resources within the park.

The survey was conducted in two separate projects: the first entailed remote sensing of both the terrestrial and marine portions of the park; the second involved the excavation of a number of shovel test pits with the intention of investigating anomalies detected during the remote sensing and archaeological monitoring of geotechnical testing conducted at Derby and Central Wharves. LBA conducted extensive historical research to create a series of base maps and develop historic contexts for site interpretation. Results of this research is also reported by Friedlander et al. (1991).

**Methods:** The marine remote sensing survey using side scanning sonar was conducted by J. Lee Cox, Jr., Dolan Research, Inc. and the terrestrial remote sensing investigation, using a magnetometer and electromagnetic (conductivity and resistivity) instruments, a soil conductivity meter, and ground-penetrating radar was performed by Bruce Bevan, Geosight. All terrestrial remote sensing data were tied to a site grid that was established at the start of the project.

Both remote sensing projects were completed in April, 1990. LBA performed archaeological testing to evaluate remote sensing anomalies identified by the Geosight survey. Archaeological ground truthing was conducted in two phases: the first in June and July, 1990, and the second in May, 1992. Three underwater anomalies were identified, but no ground truthing of these was undertaken (Fig. IV.5).

A total of seven shovel testing locations were proposed to evaluate remote sensing anomalies identified during the survey. In the grassy area south of Derby Street, shovel tests were proposed along three transects (A, B, and C) to examine changes that were detected in soil resistivity (Fig. IV.6). A total of 18 shovel tests were excavated at 10-ft. intervals along Transect A. No shovel tests were excavated along Transect B because the crew's priority during this phase of fieldwork was to monitor the geophysical tests that were being performed. The testing along Transect C consisted of four shovel tests excavated at 10-ft. intervals.



A total of 14 shovel tests were excavated north of Derby Street in five transects (D, E, F, G, and H) and at three isolated radar anomalies at the rear of the Custom House/Public Stores (Tests I-1, I-2, and I-3) (Fig. IV.7). Transects D and E were located approximately 50 ft. behind the Hawkes House. To provide a comparison, Transect F was located in what had been a historically open area where no anomalies had been detected. Transect G was located within a concentration of anomalies near the rear lot line of the Narbonne House, and Transect H was located near the east lot line behind the Derby House.

Archaeological monitoring was also conducted during geotechnical tests to examine the condition of Derby and Central Wharves and to record the presence of other cultural remains. The geotechnical testing consisted of five soil borings and six test pit excavations (see Fig. IV.5). Three test pit excavations (TP1, TP2, and TP3) and one boring (B1) were completed on Central Wharf and three test pit excavations (TP4, TP5, and TP6) and four soil borings (B2, B3, B4, and B5) were completed on Derby Wharf. A total of 1,643 artifacts were recovered from subsurface excavations during the testing and monitoring and mean ceramic dates were calculated for each transect.

**Results:** Historical data and archaeological testing attempted to indicate that identified anomalies and disconformities represented episodes of landfilling. The survey found that the “land use-history of the NPS properties includes the construction and demolition of structures, expansion and repairs of wharves, and maintenance of shipping channels through dredging.” It was suggested that many of these activities would have impacted the early wharves and archaeological deposits associated with the residential and commercial occupation of the site.

The marine remote sensing survey failed to locate potential archaeological targets, although this may be the result of survey difficulties due to shallow water and significant quantities of metal in the wharves and vicinity. The terrestrial

remote sensing survey located several soil anomalies south of Derby Street. Monitoring of geotechnical tests on Derby and Central Wharves supported the assumption that the historic fabric of these two wharves were almost completely reconstructed since NPS acquisition in 1937, and have minimal integrity (see evaluation below and Garman et al. (1998) and Donta et al. (1998) for a discussion on potential integrity and preservation of archaeological remains and deposits associated with both Derby and Central Wharves). In contrast, Hatch’s Wharf is suggested to maintain architectural and archaeological integrity since it has been relatively undisturbed since the early 19th century.

Areas that were not obviously disturbed, and therefore maintain high archaeological potential, include unexcavated portions of the Narbonne House and Custom House lots, particularly the locations of former outbuildings. Several soil anomalies and possible targets representing material were identified by radar survey in the area north of Derby Street, but archaeological testing at the locations of several of these anomalies failed to reveal intact deposits or features.

**Recommendations:** The results of archaeological testing suggested that at least some of the anomalies north of Derby Street represent disturbances caused by construction, demolition, and landscaping episodes. Although many of the areas within SAMA are considered to have low potential for intact archaeological remains because of previous disturbance, it is not possible to specify the extent and locations of these disturbances. Therefore, archaeological resources should be evaluated prior to any development in the park.

**Evaluation:** The report presents a clear and concise summary of the findings of a cultural resource management survey that was conducted for planning purposes at SAMA. The scope of the survey applied the mean ceramic date formula to each series of transects excavated throughout the park, but did not address specific research questions or include advanced artifact analysis. While the conclusions of this report provide the

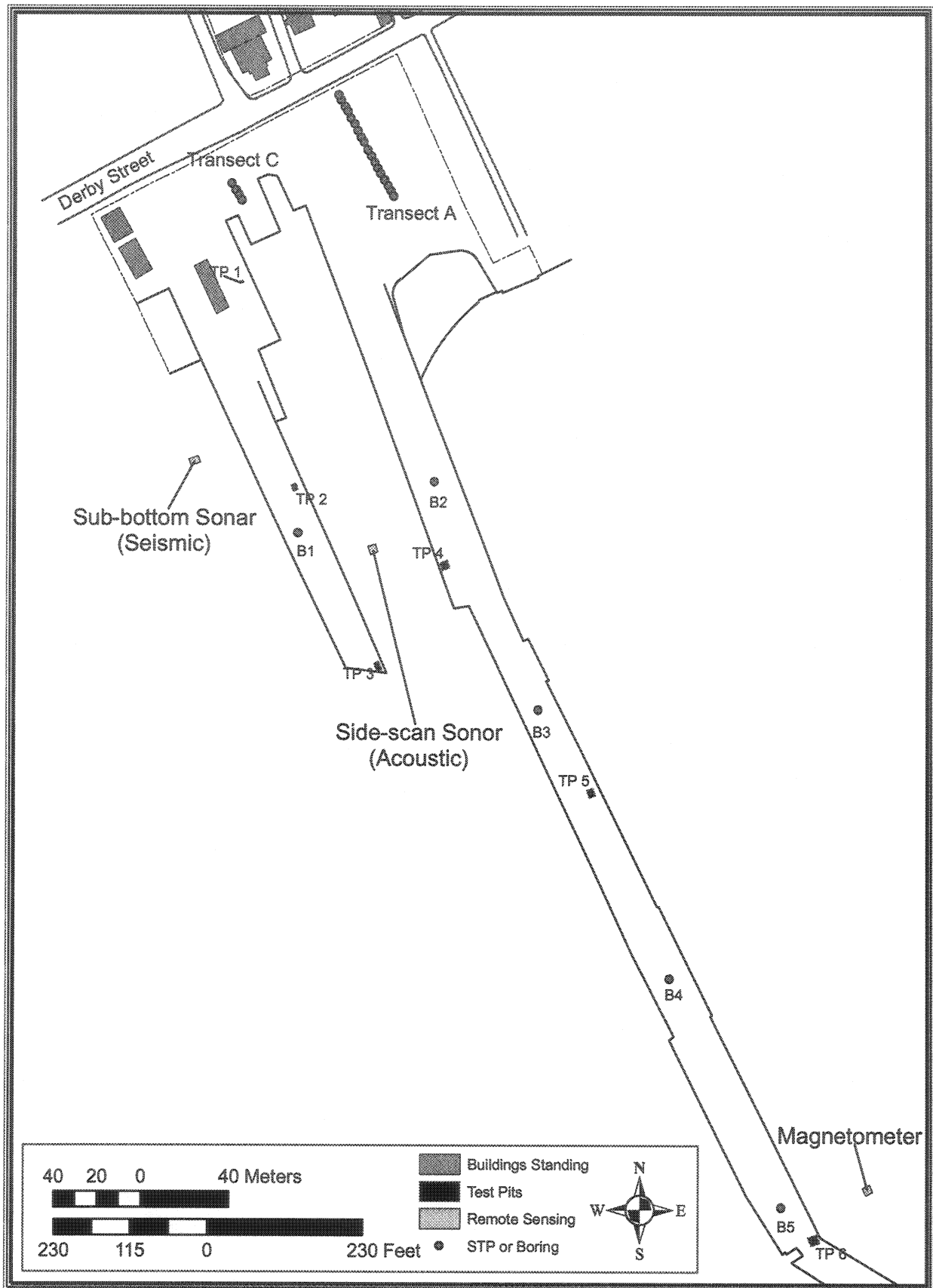


Figure IV.5. Locations of Underwater Anomalies from Remote Sensing Survey.

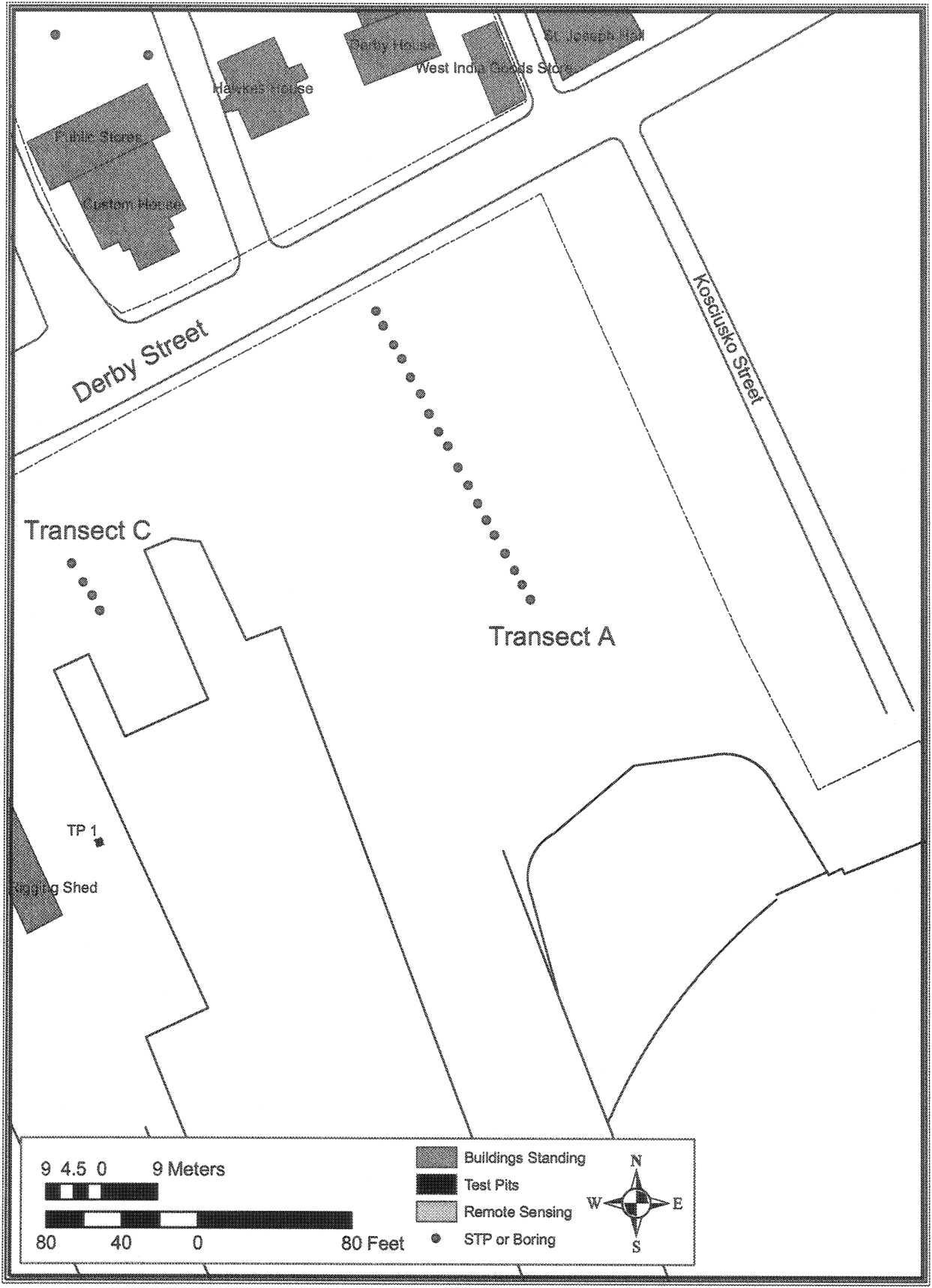


Figure IV.6. Test Excavation Locations to Investigate Radar Anomalies South of Derby Street.

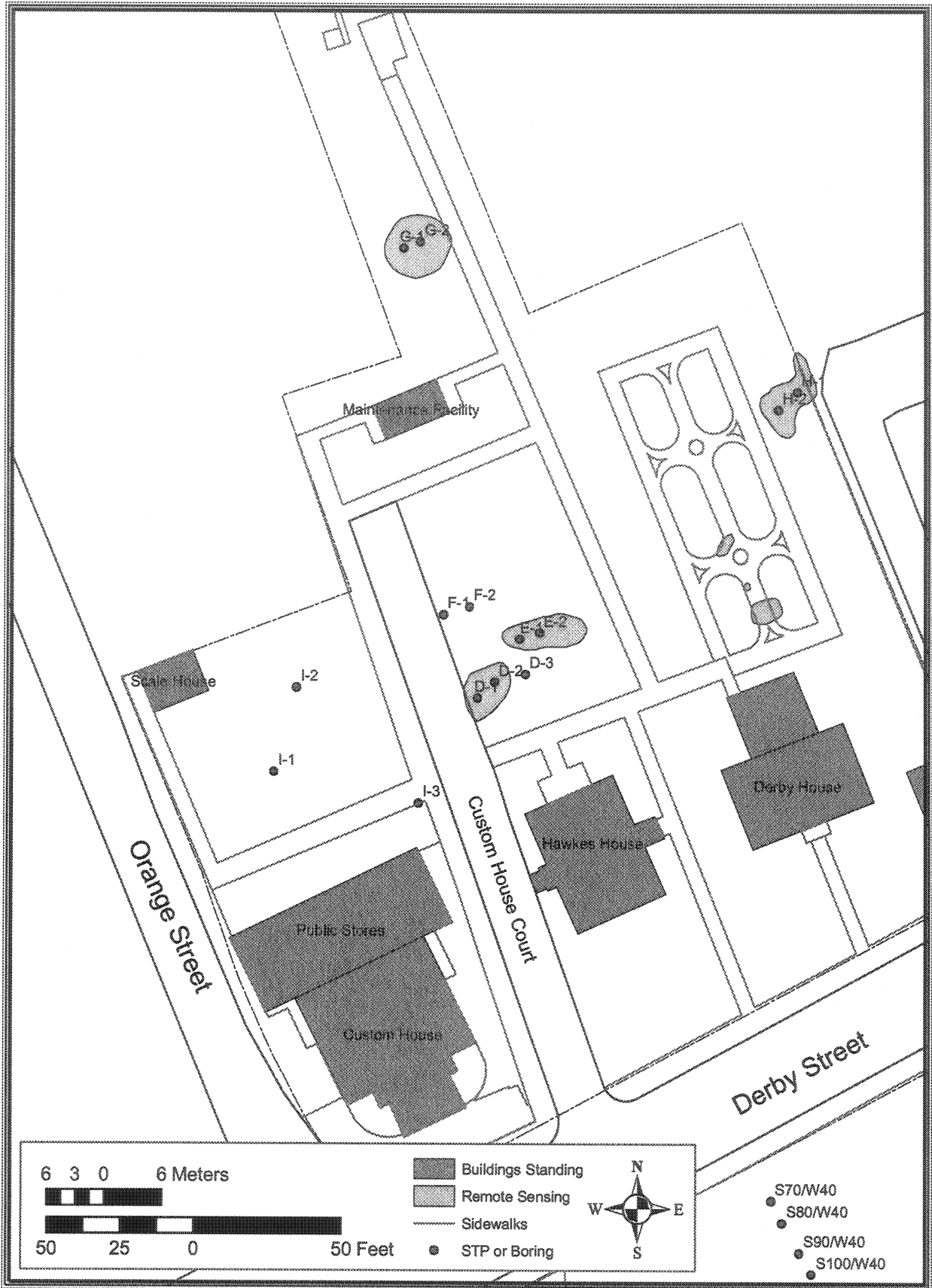


Figure IV.7. Locations of Radar Anomalies North of Derby Street.

results of sound geophysical, non-invasive research conducted through remote sensing, they differ from the findings reported in Garman et al. (1998) and Donta et al. (1998). These differences are likely the result of the later excavations that revealed deep and complex urban cultural fills that comprise Derby, Hatch's, Tucker's, and Central Wharves. Excavation associated with the survey were relatively shallow, being confined to shovel testing.

**Report Title:** *Archaeological Investigation at Derby and Central Wharves, Salem Maritime National Historic Site, Salem, Massachusetts*

**Authors:** James C. Garman, Leslie C. Shaw, F. Timothy Barker, and Mitchell T. Mulholland

**Date of Report:** 1998

**Date of Fieldwork:** March 13-22, 1992; April 10-24, 1992; April 21-23, 1992; December 16, 1992-January, 1993; and January-March, 1993.

**Project Goals:** The archaeological survey conducted by UMAS was a precursor to the construction package planned for the site as part of its redevelopment and was mandated by federal regulations protecting archaeological resources. Investigations took place on both Derby and Central Wharves as required by five separate task orders (Task Orders 1-5). The main objective of archaeological testing on Central Wharf was to determine if historically significant deposits and architectural features remained buried within the modern wharf in the area of a proposed pipeline. Derby Wharf investigations had similar goals that included determining the degree of integrity of the wharf's internal structure. This report serves as the final summary of the five task orders issued to date. Three additional task orders were conducted for the Salem project and are reported separately. Task Orders 6-8 covered monitoring and archaeological investigations on Central Wharf (see Donta et al. 1998).

**Methods:** Task Order 1 (Fig. IV.8): The primary goal was the location and documentation

of early timber remains from the interior of Derby Wharf. Also of interest was determination of the extent of disturbance caused by the 1938 WPA wharf reconstruction. The location of subsurface testing was based on the results of the previous geophysical survey (Alterman et al. 1995). Mechanical excavation of 15 trenches of varying dimension in targeted locations enabled field personnel to clean and record profiles, record significant features, document the presence or absence of structural remains, and when appropriate, screen the matrix around timber elements in an effort to recover temporally diagnostic artifacts.

Task Order 2 (Fig. IV.9): The purpose of these investigations was to assess the integrity of the John Prince's Store (Warehouse 3) foundations and search for other structural remains on Derby Wharf. UMAS also conducted testing along a proposed utility pipeline on the nearby Sanborn-Whipple-White section of Central Wharf. The first fieldwork phase involved detailed site examination of Warehouse 3, while the second phase included deep backhoe trenching in the area just to the north of the existing foundation.

On Derby Wharf, mechanical stripping removed the upper 12-18 inches of overburden primarily composed of crushed gravel associated with recent wharf repairs and a stone-dust path along the wharf's center. After the field crew shovel-shaved the area under examination, four 5 ft by 5 ft units were opened in the vicinity of Warehouse 3. These units were designed to provide information about the structure's relative age, the presence or absence of features associated with the warehouse, and any other information illuminating the building's construction and demolition sequence. Subsequent fieldwork focused on the area north of Warehouse 3. On Central Wharf, archaeological testing of the pipeline corridor included mechanical and hand excavation of four trenches.

Task Order 3 (Fig. IV.10): The remainder of the proposed pipeline was tested in the Sanborn-Whipple-White and Ingersoll-Forrester sections of Central Wharf. Investigations focused

on a 174 ft. length of proposed pipeline extending from south of a bollard and chain fence paralleling Derby Street to the southeast corner of the parking lot present during the time of excavation. Prior to excavation, the entire length of the proposed pipeline within the scope of work was divided into fourteen segments. Each segment was 15 ft. long by 4 ft. wide and was laid out using the centerline measurement of the proposed pipeline. The segments were labeled numerically from north to south commencing with Segment 0 at a chain link fence and ending with Segment 14 at the trench's south end. Under this task order a research design was written for data recovery on Derby Wharf and monitoring on Derby and Central Wharves was conducted.

Task Order 4 (Fig. IV.11): Following the completion of exploratory testing under Task Orders 1 and 2, it was determined that the historical materials recovered at Derby Wharf warranted data recovery. The construction of a temporary steel coffer dam, combined with the specifications for de-watering and the provision of laborers, permitted a thorough examination of extant timber remains on a scale previously seen in few wharf excavations.

Most of the fieldwork involved heavy machinery including a large excavator to remove large quantities of overburden and move spoil piles, and a smaller excavator for more controlled interior excavation. The temporary coffer dam was designed by engineers from TAMS, Inc. and consisted of interlocking steel sheet piles driven through the wharf to a depth of 32 ft. below the wharf surface. It is certainly possible that the excavation of the coffer dam disturbed subsurface cultural resources on the wharf itself. Some ephemeral features such as the foundations of sheds or other structures that may have existed in this space were destroyed during this excavation.

Task Order 5: This task included additional background research, report writing, and analysis and curation of artifacts collected during Task Orders 1-4.

**Results:** Task Order 1: Extensive backhoe trenching revealed two different categories of

archaeological resources: 1) intact cribbing elements from the eighteenth-century construction of Derby Wharf; and 2) a granite foundation wall of John Prince's Store (Warehouse 3), complete with entrance bays. Eight of the fifteen trenches (Trenches 4, 6, 9, 10, 11, 12, 13, and 15) contained intact structural elements from the eighteenth century wharf. The most substantial *in situ* framing of the 1762-1771 wharf revealed by these excavations was located in the northern end of the project area in trenches 9 and 10 and in the southern portion in trenches 1, 4, and 6.

The 1938 WPA reconstruction of Derby Wharf did not disturb subsurface archaeological resources as extensively as expected. Along the eastern and western edges of the wharf, the line of the WPA excavation ran north-to-south through the project area at no more than 20 ft. from the outside edge of the seawall. Impacts to the interior of the wharf had been relatively slight; none of the backhoe trenches placed along the central axis of the modern wharf revealed any significant twentieth-century cutting and filling at the depths of the earlier structures.

Task Order 2: Fieldwork associated with Task Order 2 yielded significant structural information about the construction of John Prince's Store (Warehouse 3). The depths of the foundation blocks for Warehouse 3 were not available because the foundation was only tested to its full depth in two locations because of concerns about undermining the foundation. Details of Warehouse 3 revolved around the entrance bays, the foundation, the cobble surfaces, and the associated artifacts recovered from near the structural remains. Hand clearing in a deep backhoe trench (S 322 E 36) revealed a cobble surface, presumably the base of a second, previously unknown structure. On the basis of Friedlander et al.'s (1991:119) historical overview and base maps, this feature was believed to be associated with John Derby's "New" Store. No other resources within or near the warehouses were observed during the course of fieldwork.

Archaeological testing of the Sanborn-Whipple-



White portion of Central Wharf indicates that many areas of the well-preserved eighteenth and nineteenth-century features and deposits remain within the modern wharf. In general, deposits starting at approximately 3 ft. below the surface in the area near Derby Street (Trenches 50, 51, and 52) date to the eighteenth and nineteenth-century construction and use of the wharf and associated structures. The area tested farther south on the wharf by Trench 55 had thick deposits of fill dating to the late nineteenth and early twentieth-centuries, possibly overlying a disturbed wharf structure built before 1818. In the area of Central Wharf, several features were found, including a bulkhead associated with an eighteenth-century wharf, an eighteenth-century warehouse, and a twentieth-century foundation slab.

Task Order 3: Several archaeological features associated with the Sanborn-Whipple-White Wharf were found but none were associated with the Ingersoll-Forrester section of the wharf. The remainder of the proposed Central Wharf pipeline was tested, resulting in the documentation of an early nineteenth-century storage structure (Segment 6) and part of the flooring of an unidentified building (Segment 0). Evidence of a pre-twentieth-century structure was identified (Segment 6) by a north-south orientated stone foundation and boards interpreted as collapsed steps. The location of the foundation corresponds well with map evidence for a one-story wooden warehouse (Friedlander 1991 - Structure 82).

Task Order 4: Fieldwork carried out as part of Task Order 4 revealed an earlier, undocumented wooden bulkhead-and-tieback system near the center line of the modern Derby Wharf, a system that was excavated and documented completely. Many details of joinery and workmanship had survived through nearly two centuries of preservation in anaerobic clay. This excavation provided considerable information on eighteenth and nineteenth-century wharf construction and has challenged some early constructs about the manner in which wharves were built. Excavations in the northeast and southeast quadrants of the coffer dam revealed an eighteenth-century midden on the bulkhead exterior. This

midden and related fill provided information on wharf associated activities from the time of wharf construction until its widening.

Portions of the John Prince's Store (Warehouse 3) foundation remains, identified under Task Order 1 and examined under Task Order 2, were disturbed during the construction and excavation of the steel coffer dam (Garman et al. 1998:42-43). The steel coffer dam was removed after Task Order 4 was completed. Potentially intact archaeological deposits located immediately outside of the coffer dam would have been disturbed during construction and rehabilitation of the wharf following the completion of archaeological investigations.

**Recommendations:** The archaeological excavation of Derby and Central Wharves proved that intact, well-preserved, historically significant archaeological resources remain buried beneath both Derby and Central Wharves. It was recommended that any future land-alteration projects on Derby Wharf and intact portions of Central Wharf include aggressive subsurface testing prior to such work.

Task Order 1: Units contained well-preserved joinery and are considered to have the highest potential for contributing to an understanding of techniques used in eighteenth-century wharf construction.

Task Order 2: On Derby Wharf, archaeological testing did not explore all sensitive areas of the pipeline corridor. The survey established that well-preserved and significant features and deposits remain intact in the area.

For the work on Central Wharf, it was recommended that either 1) the pipeline be repositioned to avoid the abovementioned resources; or 2) additional archaeological testing be conducted to fully document and interpret any impacted resources. A decision was made to perform additional archaeological testing.

Task Order 3: The top 3 ft. of deposits existing on the wharves includes debris and fill from the very end of the nineteenth century into the present, including modifications made by NPS. Deposits and features dating to the mid-nineteenth century and earlier were encountered

below about 3 ft. from the modern surface. These early deposits including the earliest wharves are likely to extend below the maximum 4 ft. depth of the archaeological trenching conducted by UMAS. The careful management of archaeological resources below 3 ft. is important, especially in the upper areas of the wharves along Derby Street. This area may contain data relevant to the business and daily activities of the merchants and laborers who occupied the wharves and buildings.

**Task Order 4:** The portions of the 1762 Derby Wharf and the warehouse remains near the surface have integrity, clarity of data, and the potential to contribute important information to archaeology and history. It is important to emphasize that the excavation touched upon only a tiny fraction of what must exist beneath the landscaped surface of modern Derby Wharf. It is recommended that any future land-alteration projects on Derby Wharf include aggressive subsurface testing prior to such work.

**Evaluation:** This report presents a detailed and impressive examination of the archaeological excavations on both Derby and Central Wharves. The report provides a complimentary historical context that situates this investigation within the broad history of wharf research and the local political economy of eighteenth and nineteenth-century Salem. The historical background section of the report builds on the previous work conducted by Friedlander et al. (1991). The report represents a synthesis and interpretation of archaeological data that had been conducted during all four Task Orders. The report also incorporates useful information concerning methodological approaches toward future archaeological excavations on Derby and Central Wharves. The use of mechanical trenching with a backhoe is recommended to reach deep archaeological deposits and the construction of a temporary steel coffer dam provided maximum archaeological visibility.

**Report Title:** *Archaeological Monitoring and Investigations for the Central Wharf Site Development, Salem Maritime National Historic Site, Salem, Massachusetts*

**Authors:** Christopher L. Donta, Lorinda B.R. Goodwin, F. Timothy Barker, and Mitchell T. Mulholland

**Date of Report:** 1998

**Date of Fieldwork:** October 18-25, 1993; January 24-February 7, 1994; March 28-30, 1994; June 15, 1994; September 26-October 21, 1994

**Project Goals:** UMAS conducted archaeological investigations under three separate task orders (Task Orders 6-8). Proposed construction included the rehabilitation of Central Wharf and the construction of a restroom facility and associated utilities. The goal of the Task Order 6 survey was to establish the presence or absence of intact early remains on Central Wharf (of the eighteenth and early nineteenth-century structures associated with it) that would be impacted by the relocation of the construction corridor. Task Orders 7 and 8 consisted of archaeological investigations on the northern portions of Central Wharf to be impacted by the construction of a restroom building foundation and four utility lines. Task Orders 1-5 are reported in Garman et al. (1998).

**Methods:** **Task Order 6 (Fig. IV.12):** The goals of this survey were to establish the presence or absence of early remains of the northern end of the eastern bulkhead on Central Wharf and its associated eighteenth and nineteenth-century structures, and to provide accurate locational data of these remains to NPS. The survey was not designed to fully expose and investigate archaeological remains. Four backhoe excavated test trenches were located within the western-most edge of the area of impact. Test trenches were excavated at the potential locations of the junction of historical bulkheads.

**Task Order 7 (Fig. IV.12):** Archaeological monitoring was required for construction centered on the northern 200 ft. of Central Wharf, where a 178 ft. long north-south concrete deadman and associated tie-rods were to be laid. A trench, ranging in width from 6 to 9 ft., was excavated to

a depth of 6 ft. in order to accommodate the deadman. Trenching along the entire length of the deadman was required to place the tie-rods. Portions of the project area had been previously examined in October 1993 under Task Order 6 investigations at which time intact early wharf features had been identified.

Archaeological monitoring was also undertaken for a trench being excavated on Central Wharf. The trench was an extension of the Task Order 3 water pipeline that was connected to the city's water main beneath Derby Street. The pipeline was to run roughly north-south across Central Wharf and eventually connect to a restroom/shower facility to be built behind the Park's Orientation Center. The trench connecting the water pipeline to the water main extended 25 ft. northward from Task Order 3 Segment 0 to the water main. The 3.4 ft. wide trench was excavated through the brick sidewalk and ran 9.5 ft. under the southern side of Derby Street. The floor of the trench lay at 4.75 ft. below the surface.

Task Order 8 (Fig. IV.13): This task order consisted of archaeological investigations of the northern portions of Central Wharf proposed to be impacted during construction of a restroom building foundation and four utility lines. Primary concern was with sewer and electrical lines planned to run northeast from the foundation across the oldest portion of the wharf. Secondary emphasis was placed on investigating the area proposed for the building foundation and utility lines running south and southeast from this location. A total of 14 trench segments 4 ft. in width and 271 ft. in total length were excavated. Field investigation for all areas was performed by mechanical testing, supported by hand excavations as necessary.

**Results:** Task Order 6: The material recovered in trenches 1, 2, and 4 predated the 1947 Naval Reserve building and most likely predated the 1896-1897 bulkhead piles. All of the artifacts recovered from the Task Order 6 trenches were consistent with fills overlying the 1819 wharf. The domestic nature of the artifacts sug-

gests that the fill was obtained from a location off site where coal and domestic artifacts were dumped.

Task Order 7: Archaeological monitoring provided a wealth of information about the evolution of Central Wharf. The project was able to record details of 100 years of wharf construction and usage from the first quarter of the nineteenth-century to the early twentieth-century. Findings included large portions of the 1819, 1852-1874, and 1914 wharves, their structural supports, repairs, and architectural features. The area with the highest density of features was over the 1819 portion of Central Wharf. A construction trench uncovered a 50 ft. portion of the 1819 wharf's eastern bulkhead that extended from the stone bulkhead of Hatch's Wharf south.

Beneath the late fill strata in the Derby Wharf extension of Task Order 3 pipeline trench were earlier nineteenth-century fill and eighteenth-century features associated with a structure. From 2.6-3.3 ft. below the surface, wood planks were interpreted as a floor lying adjacent to the stone foundation observed in Segment 0 (Task Order 3). Lying beneath the decaying wood on the floor and above naturally occurring blue-gray clay, were two early fill strata also probably associated with the mid-eighteenth-century structure (possibly a crawl space beneath flooring).

Task Order 8: During archaeological excavations conducted under Task Order 8, two stone foundations were uncovered in Segments 1-5, possibly representing the Ingersoll Wharf, dated to ca. 1764 and one of the warehouses. Based on dimensions provided by Snell (1977) and Friedlander et al. (1991), the warehouse is likely to be the one that dates to 1791-1792. During the archaeological investigations a section of the western timber bulkhead, interpreted as part of Simon Forrester's 1791-1792 expansion, was exposed in the southwestern portions of Segments 1-4. Archaeological investigations also revealed a wooden portion of the 1764 western bulkhead, and the stone eastern portion of the 1764 wharf. Probable evidence of the 1914 fire was observed in most of the Task Order 8 segments, appearing

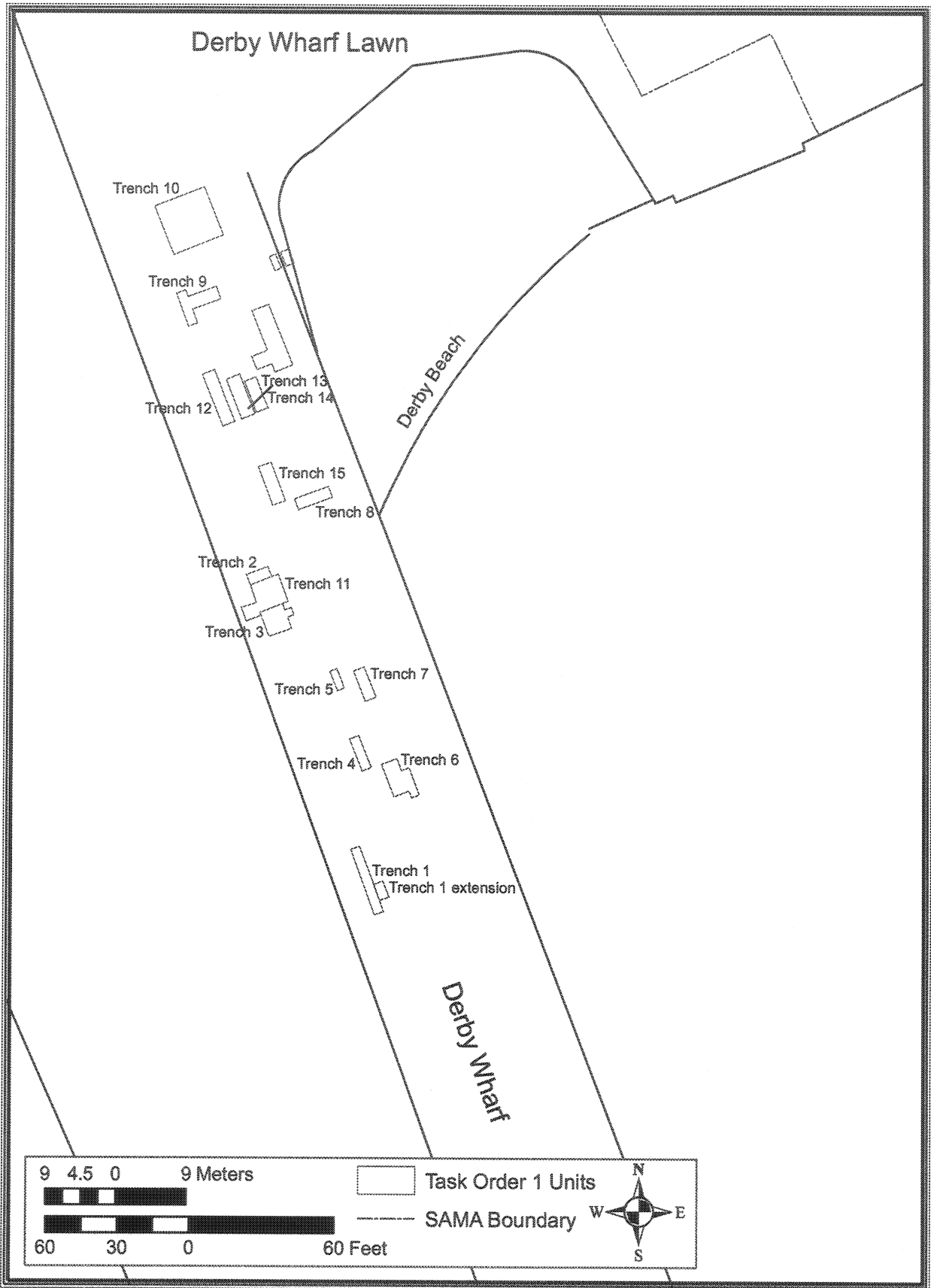


Figure IV.8. Task Order 1.

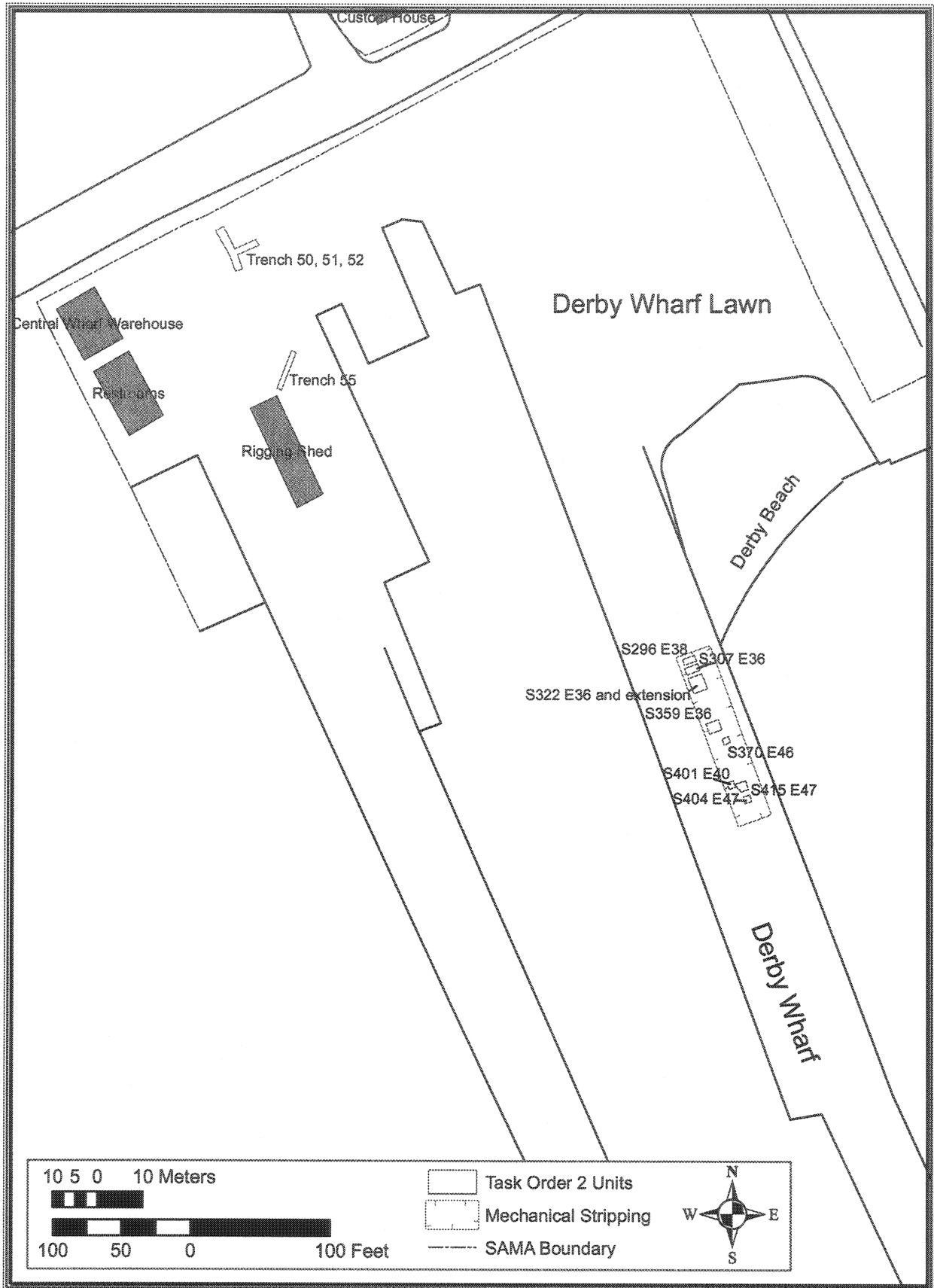


Figure IV.9. Task Order 2.

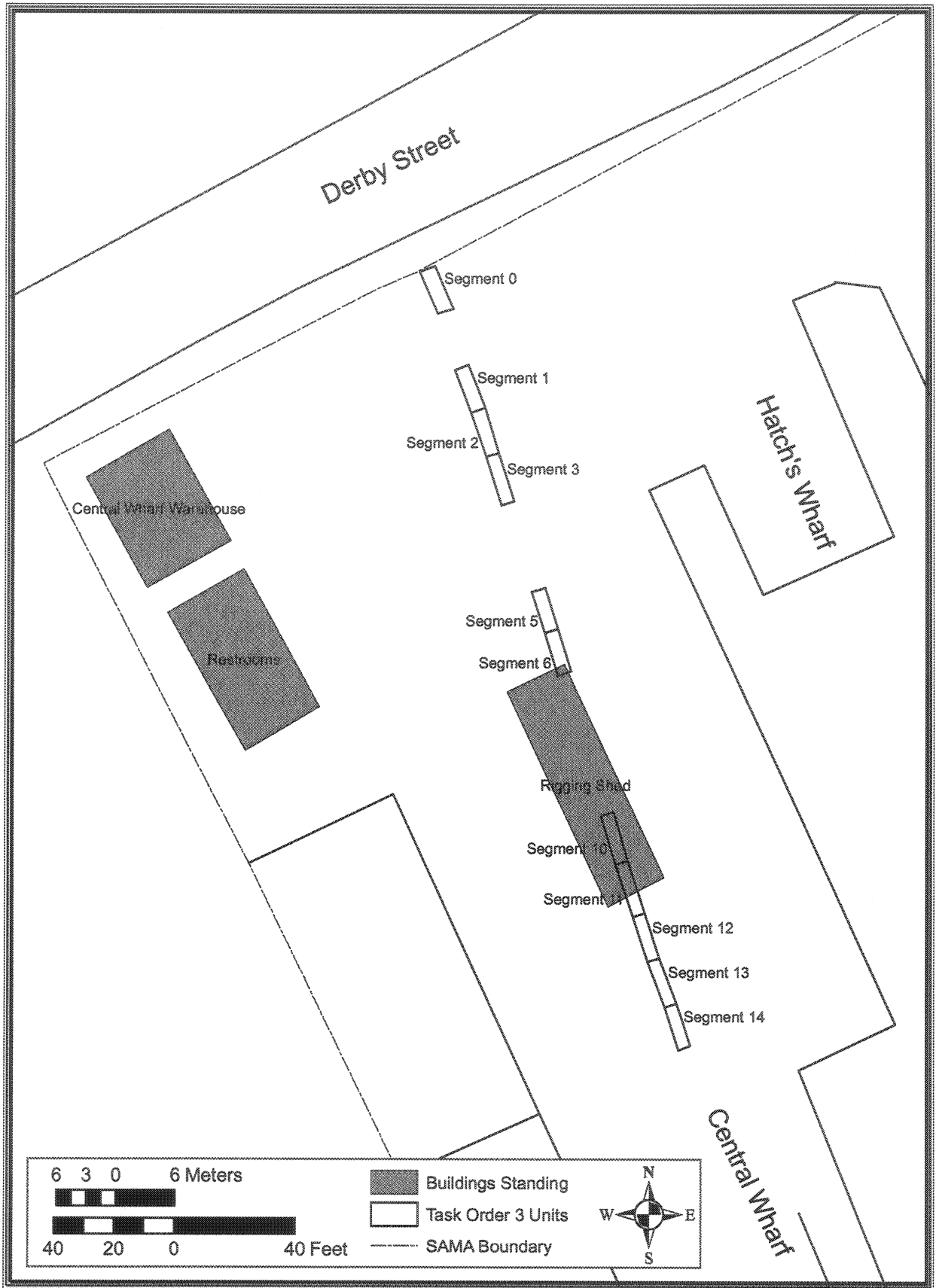


Figure IV.10. Task Order 3.



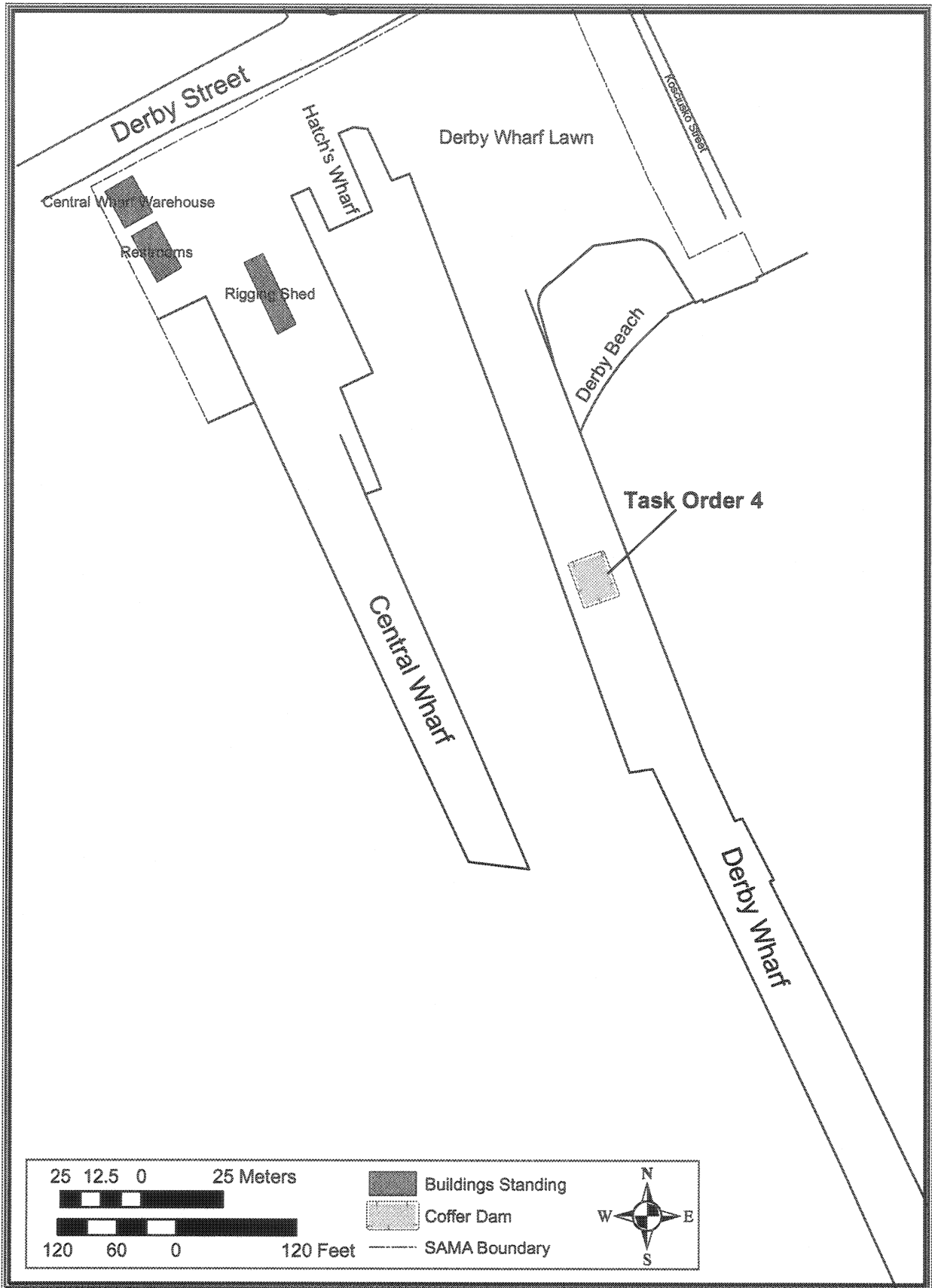


Figure IV.11. Task Order 4.

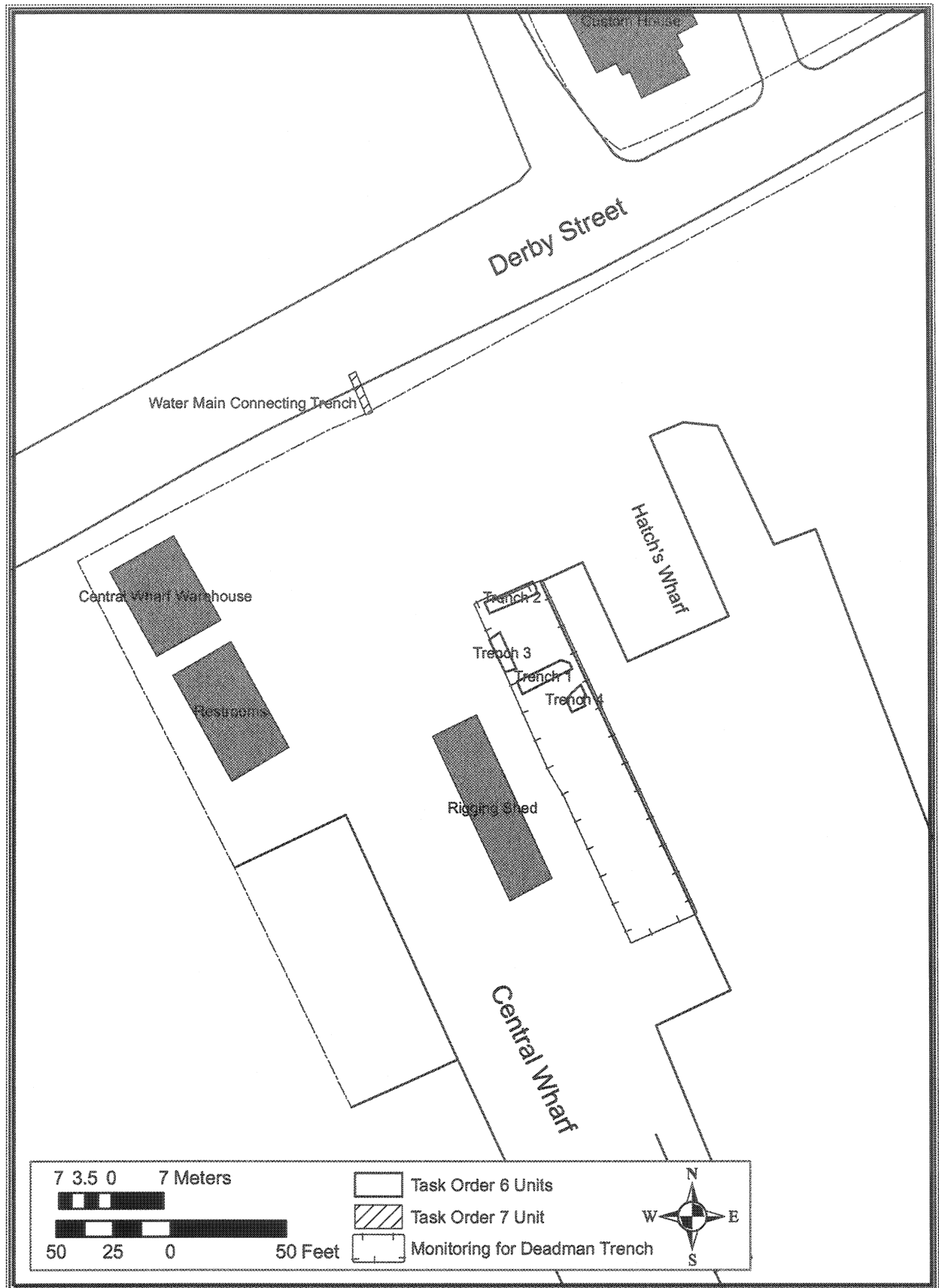


Figure IV.12. Task Orders 6 and 7.

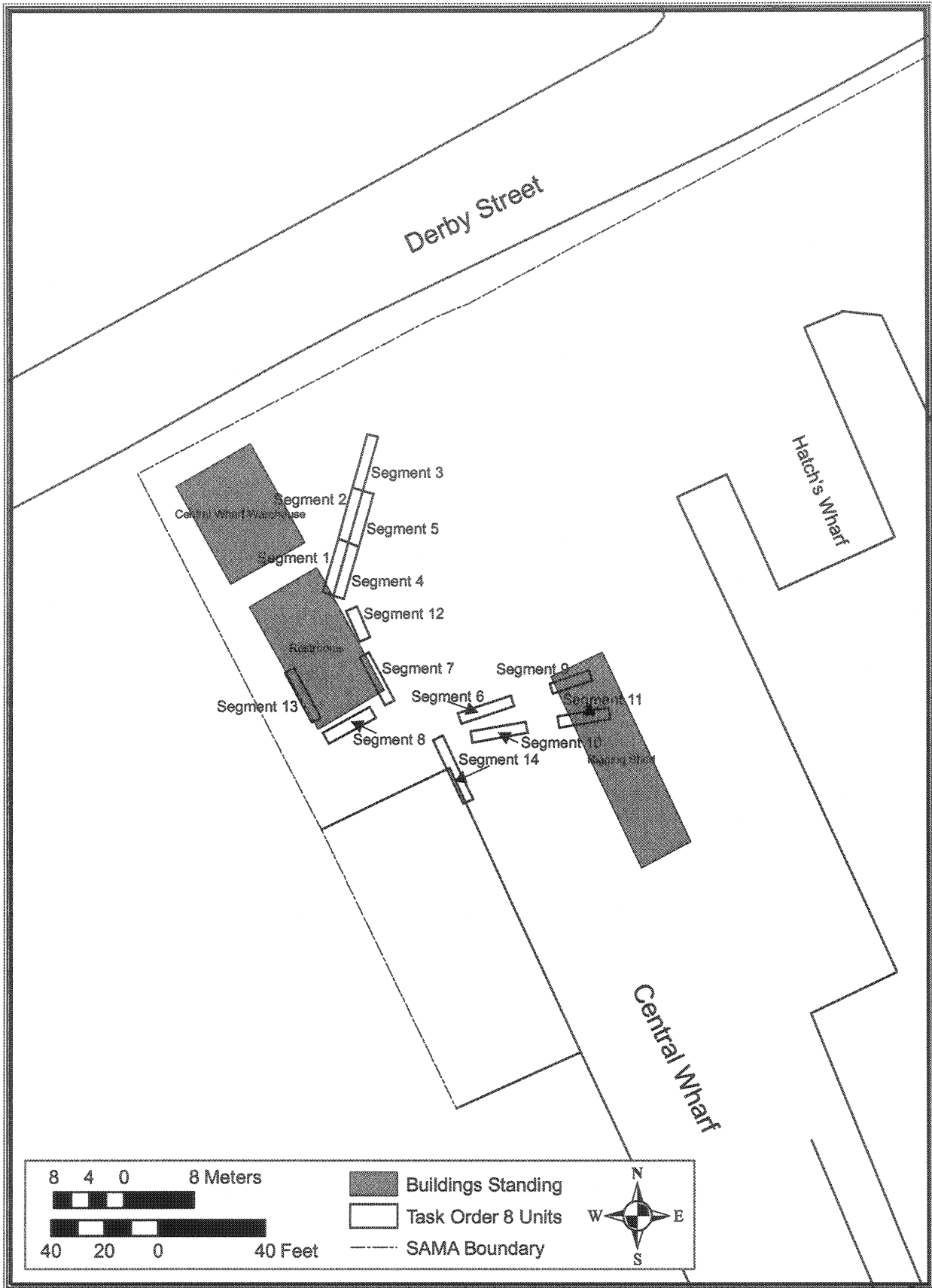


Figure IV.13. Task Order 8.

as a black charcoal layer near the surface of unit profiles.

With the exception of the Forrester Warehouse, the archaeological investigation found limited evidence for foundations of the buildings, but the structures may not have had substantial foundations. Many of the fill strata contained coal, coal slag, and coal dust, evidence of the many years the wharf was used for fuel storage.

**Recommendations:** The portion of Central Wharf tested under Task Orders 6-8 contained significant cultural materials in a good state of preservation. The features were complex and deserved more attention than could be devoted to them during archaeological monitoring. Recommendations were that this area be avoided during construction, or if this is not possible, that mitigation through data recovery be undertaken.

A large volume of concrete rubble and intact concrete foundation was encountered along the east-west water line and in Trench segments 7 and 14, and likely will be found over a much larger area (Donta et al. 1998:51). This rubble and concrete foundation is left from the demolition of the Naval Reserve building in 1974-1975. Some of this rubble, pieces which measured up to 10 ft. in length will complicate future projects and maintenance activities in the larger area by blocking small area excavations and requiring much larger excavation areas than originally anticipated. Future work should consider the large concrete remnants of the Naval Reserve building when planning for labor and compliance needs.

**Evaluation:** This report provided a clear and concise summary of the findings of a cultural resource management survey that was conducted for compliance purposes. The scope of the survey did not include specific research questions or advanced artifact analysis. The use of mechanical trenching with a backhoe is recommended to reach deep archaeological deposits

**Report Title:** The Little Dig (Newspaper Article for *The Evening News*, Salem, MA, Friday, December 22, 2000)

**Author:** Tom Dalton

**Date of Report:** 2000

**Date of Fieldwork:** December 2000

**Project Goals:** Installation of utility lines between an electrical pole on Derby Street and the southwest corner of the Custom House (Fig. IV.14) required hand excavation of the trench by SAMA museum technician, Robin Maloney, to search for intact archaeological resources and collect miscellaneous artifacts. The trench was placed in the former location of the Crowninshield mansion front yard area, subsequently disturbed in 1819 by the construction of the Custom House. The newspaper article did not specify the exact dates of the fieldwork.

**Methods:** Hand excavation of a 20 ft long and 2 ft wide trench was conducted to a depth of 3 ft. Excavated material was screened through ¼ inch mesh and all artifacts were retained.

**Results:** The utility trench excavation revealed soil hypothesized to be fill brought to the site from elsewhere. A variety of artifacts were collected.

**Recommendations:** Not being a management document, this article did not provide any recommendations for future archaeological research.

**Report Title:** *Phase IB Archaeological Reconnaissance Report, Derby Wharf Utility Corridor, Salem Maritime National Historic Site, City of Salem, Essex County, Massachusetts*

**Author:** Scott D. Stull

**Date of Report:** 2004

**Date of Fieldwork:** December 9-13, 2002

**Project Goals:** Archaeological testing of a 420 ft. utility corridor was conducted along Derby Wharf. The utility line was needed to serve a new mooring facility for the replica merchant ship, *Friendship*.

**Methods:** Backhoe trenching was required for the project due to the depth of the

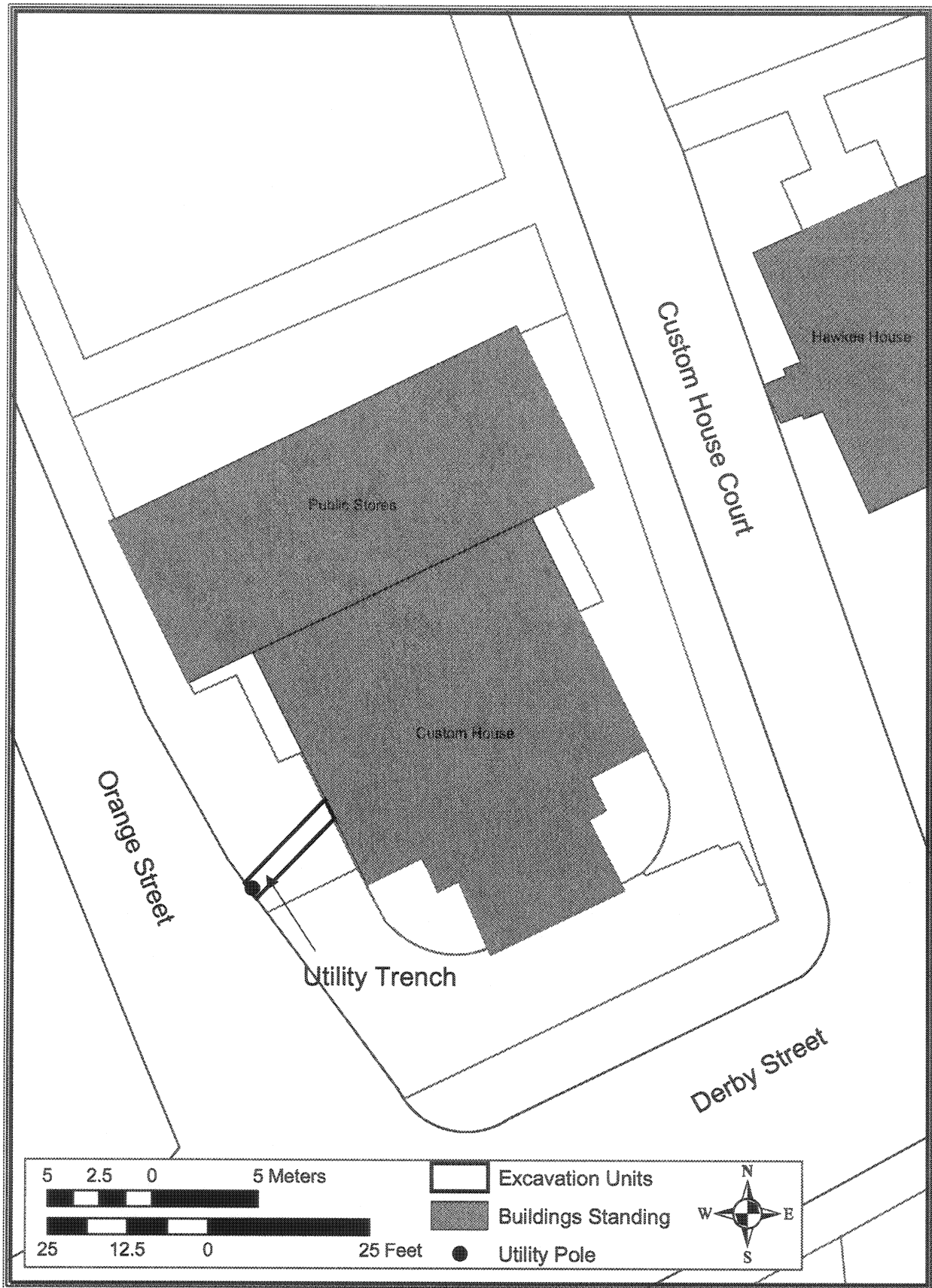


Figure IV.14. Location of 2000 Utility Trench

proposed impacts. Twelve trenches were excavated in the line of the utility corridor from Derby Street to the mooring facility on the wharf (see Fig. IV.15). One trench was 46 ft. long, while the rest were 11 ft. and 22 ft. long. The trenches were excavated to a depth of 5 ft. with deeper testing in selected areas to ensure all deposits potentially impacted by the utility line construction were documented. The alternate corridor under the Derby Street sidewalk was not tested due to the presence of a 115,000 volt electric line under the sidewalk. This area had already been disturbed; and the potential hazard of the high-voltage line prevented safe testing. Two trenches, 13 and 14, were excavated in the area of the mooring facility to test the areas for concrete footings and caissons. Trench 13 was 16 ft. long and Trench 14 was 22 ft. long. No soil samples were taken from the archaeological deposits identified during testing. The exposed deposits did not contain material appropriate for soil processing.

**Results:** No deposits of archaeological significance were exposed in the archaeological reconnaissance trenching between Derby Street and the mooring facility. In trenches with deeper testing, the clay base fill for the wharf was exposed and some horizontal wharf timbers were uncovered. The timbers were each approximately 6 to 8 inches in diameter. All timbers were left in place. Excavation west of the Counting House revealed a granite block foundation. This foundation appears to be from the 1874 structure No. 74 (described as the "N.O. Very" office in 1890 (Friedlander 1991:125). Two trenches were placed along the alternate corridor for the electric line west of the Counting House. The west trench (Trench 21) exposed a large, granite block foundation. Also exposed in Trench 21 were two sets of electric lines, believed to belong to the former Naval Reserve building located on Central Wharf, that were no longer active. Trench 22, located south of Trench 21 verified the location of the east edge of the Derby Counting House.

Excavations in the mooring facility area revealed archaeological deposits of the same character as in the utility corridor. No deposits of significance were recovered from the trenching in the area of the mooring facility.

**Recommendations:** Because no significant archaeological deposits or features were encountered during the testing, no additional survey was recommended prior to the proposed construction undertakings. The survey found that the upper strata of Derby Wharf tested during the investigation are those most likely to be washed away during high tides and storms and would need to be replaced regularly during the life of the wharf. The lower portions of the wharf that would have the limited protection of the structural timbers appear to have greater historic integrity, but few artifacts were contained within the deposits in the areas tested.

The survey found that the main utility corridor as tested did not have any archaeological deposits of significance. The alternate route for the electric corridor west of the Counting House passed over the existing foundation of the "N.O. Very" office. It was recommended, therefore, that the line not be placed in this alternate location. The other possible routes for the electric line would have passed over existing historic resources, which were not recommended.

**Evaluation:** The report presents a clear and concise summary of the findings of a cultural resource management project that was conducted for compliance purposes. The scope of the survey did not include specific research questions or advanced artifact analysis. The conclusions of this report appear to conflict with the recommendations presented in Garman et al. (1998). This particular report suggests that storm and tidal surges impacted the integrity of upper archaeological deposits in Derby Wharf, while Garman et al. (1998) showed that significant, intact archaeological deposits remain buried in the upper portions of the wharf.



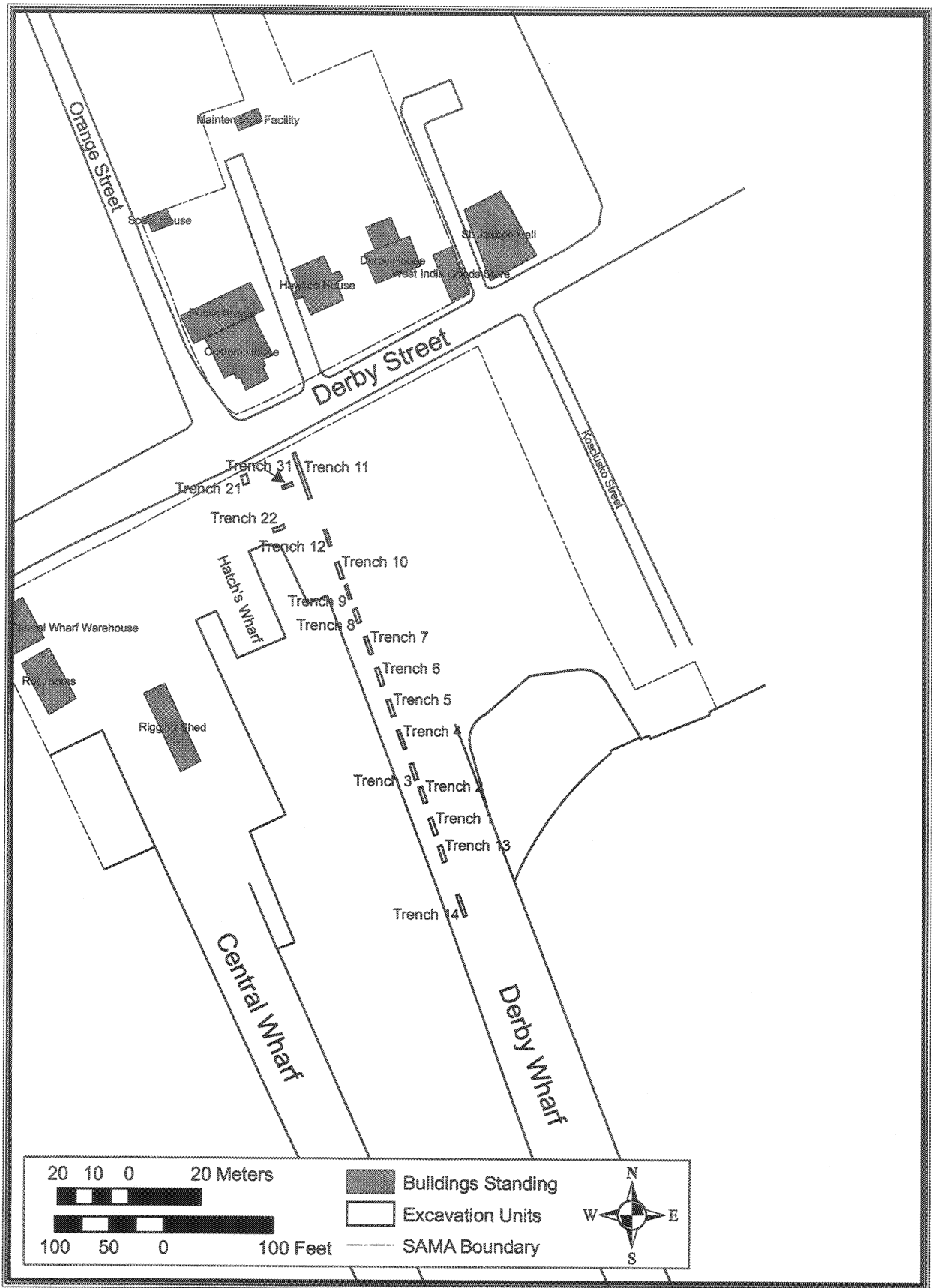


Figure IV.15. Excavations along Derby Wharf for Utility Lines

## 1. Summary Observations

Cultural resource investigations at SAMA fall into four general categories.

1) Wharf maintenance, repair and utility work. Work on Derby and Central Wharves has revealed important data on methods of construction, nature of wharf fill and the subsequent use of wharf surfaces for a variety of maritime, mercantile, and storage activities between the eighteenth and twentieth centuries. Wharf investigations were carried out by the excavation of shovel test pits, backhoe trenches and even the construction of a temporary sheet-pile cofferdam for large scale investigation of low-lying construction and fill details.

2) Remote sensing and associated ground truthing investigations. Non-invasive remote sensing was conducted in the harbor adjacent to the wharves, on Derby Wharf lawn and in yard areas of the Custom House, Hawkes House, Derby House and Narbonne House in an attempt to identify the potential presence of significant buried cultural resources. Remotely sensed anomalies in the ground were investigated by a program of shovel testing. Many areas of fill were identified as well as some features and potentially intact soil profiles.

3) Investigations in response to small scale undertakings. Additional investigations were conducted in conjunction with the installation and removal of land-based utilities. Specific projects include excavation of an electric line between the Custom House and Derby Street and removal of oil tanks north of the Public Stores building.

4) Formal archaeological investigations of specific properties. Formal investigations were conducted at the Narbonne House initially to identify details of house construction and to aid with dating of archaeological deposits that maintained the potential to be disturbed by construction and restora-

tion/rehabilitation activities. Numerous features associated with the domestic occupation of the property were identified including yard walkways and privies. Archaeological investigations were also carried out around the foundation of the Orientation Center prior to its move from Front Street to SAMA.

## B. Archaeological Collections Associated with SAMA

Artifact collections from the above investigations are curated at SAMA along with associated documentary materials. Curation conditions meet or exceed all NPS standards. All archaeological materials are located in the climate-controlled museum storage area located on the third floor of the Public Stores. All artifacts, complete and fragmentary, are stored in resealable plastic bags in either acid-free boxes on open shelves or in drawers within closed cabinets. Shelf units, shelves, cabinets, drawers, and boxes are systematically numbered and labeled. Boxes are labeled with a white tag containing the following information: park abbreviation, site name, box number, provenience, and material type. The preservational condition of all artifacts is stable, and only those items slated for display require evaluation for conservation. In addition, all artifacts have been catalogued and are available for research through the ANCS database. Details of each collection are provided below by site.

Derby House (Small et al. 1938) No artifacts were collected from this work.

Central Wharf (Moran and Horvath 1980) The 1973 and 1975 monitoring work on Central Wharf produced a small number of artifacts including a hand knit wool man's glove, rush matting basket fragments, ceramic (redware, creamware, pearlware, and stoneware), and glass (curved and case bottle). The assemblage includes approximately 300 late nineteenth and early twentieth-century glass vessels. The location of this collection is presently unknown.

Narbonne House (Moran et al. 1982) The three

field seasons at the Narbonne House from 1973-1975 produced over 138,000 artifacts stored in 225 boxes. Material recovered during those excavations include: ceramics (redware, sgraffitoware, trailed slipware, combed and dotted wares, delftware, mottled earthenware, Whieldonware, Jackfieldware, dry-bodied wares, creamware, pearlware, whiteware, yellowware, annular ware, marbled ware, sponged ware, porcelain, Nottinghamware, stoneware (domestic, Westerwald, and Raren), Frechen/Bellarmino, white saltglazed, scratch blue, and domestic earthenwares), pipe (stems and bowls), glass (wine glass stem, curved, bottle, flat, and window), brick, plaster, mortar, iron (nails, ring, and misc. iron), bone (misc. fragments, whale bone, an inscribed fragment, and part of a fan), shell, buttons, brass (a ring band, a spoon without handle, and furniture decorative motif), coin (George II, 1906), copper (flat), flint, lead (seal and strip), marble, pin, wood (blade 6 in. long, ball, and fragments), charcoal, leather, tarpaper, thimble, slate, beads (gold), sewing eyes, buckles, coral, tortoise shell (comb), cork, flint, seeds (misc. fruit pits), rope, sliding bolt, and a spoon.

Front Street (Marie 1982) Artifacts from the two structures include ceramics consisting of kitchen and serving wares, container glass and other glass. Architectural items include brick, nails and window glass. This collection is stored in 24 boxes.

Bonded Warehouse/Public Stores (Schley 1993) A variety of artifacts were recovered during the 1993 NPS oil tank removal. Ceramics found in the trench consist of redware, trailed slipware, tin enamel earthenware, creamware, pearlware, whiteware, porcelain, and Westerwald stoneware. Other artifacts include a pipe bowl and stems, button, brick, a variety of glass, dinner fork, brass ring, inkwell base, iron, and prehistoric chipping debris. This material is stored in two boxes.

Parkwide Remote Sensing and Ground Truthing (Alterman et al. 1995) LBA conducted excavations in 1990 and 1992

throughout the Park in an effort to truth anomalies detected during archaeological remote sensing. Ceramics recovered during ground truthing excavations include whiteware, redware, pearlware, creamware, yellowware, red-bodied trailed slipware, other earthenware, porcelain, salt-glazed stoneware, delftware, and ironstone. Small finds and architectural artifacts include window and mirror glass, nails, unidentified metal and hardware, tile fragments, buttons, shoe parts, two china doll fragments, two bone utensil handles, a spoon, a bottle cap, a hinge, a thermometer, a 1982 U.S. penny, a paint can, and various coal, slag, cinder, brick, mortar, tile, rubber, and plastic fragments. This collection is stored in four boxes.

Derby and Central Wharves (Garman et al. 1998) The 1992-1994 UMAS excavations on Derby and Central Wharves recovered fewer than 10,000 artifacts from all field excavations including ceramics (delftware, Oriental export porcelain, yellowware-Rockingham glaze, whiteware, pearlware, creamware, Rhenish and Westerwald stoneware, Bellarmino stoneware, and British stoneware including Fulham and Nottingham types), glass (broken wine bottles, window glass, lighting, food, storage, medicine, table, and other alcohol bottles), tobacco pipes (stems and diagnostic bowls), leather (bottom parts of shoes), wood (numerous wood artifacts including wharf timbers and a "spar-bollard" and associated pin), metal, shell, slag, coal, mortar, ash, mammal bone, and cement. Small artifacts are stored in 35 boxes, while timbers are stored on shelving.

Central Wharf (Donta et al. 1998) Collections from the most recent Central Wharf excavations include a large number of ceramics and glassware dating between the latter eighteenth and early twentieth centuries. Also included are architectural items, leather footwear and a modified whale mandible. This material is stored in 19 boxes.

Custom House (Dalton 2000) The 2000 excavations by Maloney recovered a variety of artifacts

from different layers of fill including machine cut nails, pipe stems, shell edged pearlware, and pieces of redware with trailed slip decoration. This small collection is stored in one box.

Derby Wharf (Stull 2004) Test trenches in the upper Derby Wharf fill produced a variety of artifacts, many of which derive from ashy cinder

deposits. These artifacts are stored in eight boxes.

Derby House Cellar Floor A small number of artifacts were collected during excavation of sediments overlying the cellar floor. The location of these artifacts is presently unknown.

## V. DOCUMENTED DISTURBANCES

The identification of known and potential sources of disturbance to buried cultural resources is a necessary component of any assessment due to the necessity of determining the level of integrity of such resources in association with their eligibility for listing on the National Register of Historic Places (NRHP). Disturbances are widely defined as any activity that results in a negative impact on a cultural resource. These generally consist of ground disturbing cutting and trenching, as well as demolition of extant resources that includes removal of underground components. Of consideration here are subsurface remains that are greater than 50 years of age, this being the temporal limit for NRHP eligibility. Due to this time frame, archaeological remains dating as recent as 1955 must be considered as eligible properties. This stipulation makes eligible the many structures that were purposefully demolished by the Park from the time of its creation.

The general topography and appearance of the natural landscape has changed little on the north side of Derby Street where the ground surface continues to slope gently toward the harbor. The south side of Derby Street, on the other hand, exhibits significant change through the filling of the original shoreline (at approximately present Derby Street) and creation of nearly 200 ft of made land and additional filled wharfing. These observations, thus, restrict the potential for Native American resources to the northern portion of the park, while historic period remains are potentially available from the park as a whole. The northern portion of the park also presents the appearance of good preservation due to yards landscaped with grass and walkways accompanied by plantings and trees. This appearance is deceiving, however, due to significant changes that the landscape has undergone since the seventeenth century.

Disturbances to the archaeological record at SAMA have been identified through historical research focusing on building construction and

demolition, archaeological investigations, review of NPS policies regarding the treatment of resources that were outside of the park's thematic mission, history of utility installations and oral history from park personnel (see Figs. V.1 and V.2). Reconstruction of historic land use patterns by Snell 1977 and Friedlander et al. 1991, in particular, reveals a complex mosaic of potential cultural resources across the park. Each lot is characterized by a continuous series of building, demolition and rebuilding that to varying degrees has resulted in both the creation and destruction of potentially significant cultural remains. Occupation during the seventeenth and eighteenth centuries resulted in a generally uncluttered imprint of domestic and maritime-related structures on the landscape. Complicating this picture is the apparent building boom of the nineteenth century that resulted not only in the erection of new structures on top of old ones, but also the filling of open spaces with everything from multi-roomed tenements with ground floor shops to storage facilities of both temporary and more permanent construction. The commencement of federal oversight of the port adds an additional dimension as well as buildings to the scene. Thus, the structures present in the park today are a small reflection of the height of occupation in the mid to latter nineteenth century.

Primary sources of disturbance to the Park's cultural resources are associated, first and foremost with this process of building over and reoccupying former sites. On the Custom House lot, for example, construction of the present structure negatively impacted the former Crowninshield mansion that was itself a formidable structure. The Crowninshield occupation negatively impacted the 1771 house, and that, in turn, impacted the 1661 house. The construction of outbuildings and later of complete structures succeeded in impacting yard areas that previously were little intruded upon. Thus, the density of building in the urban context ends up both creating and destroying the archaeological record.

Further impacting cultural resources have been

NPS policies associated with demolition of undesirable structures. Such activities generally involved the complete removal of the structure and associated rubble including cellar fill. The removal process was then followed by filling and landscaping each demolition site (see Alterman et al. 1995). This methodology not only erased the structure from the landscape, but also severely impacted surrounding areas. The need for topsoil to accompany landscaping work has resulted in the removal and transport of yard surfaces behind the Hawkes House and Derby House to other locations in the Park, potentially moving cultural materials from their original contexts (see Alterman et al. 1995, David Kayser personal communication).

Evidence of disturbances revealed by archaeological investigations vary by area. Limited shovel testing associated with remote sensing in backyard contexts revealed some soil profiles reflecting little disturbance, while others revealed deep layers of fill (Alterman et al. 1995). More extensive work by Garman et al. (1998) revealed extensive intact wharf structural elements and deposits associated with both wharf construction and occupation. Primary sources of disturbance in wharf contexts include demolition and reoccupation of sites and natural events in the form of erosion from storms that occasionally wash away filled sediments that make up wharf surfaces. Repair of the wharves through the rebuilding of wooden, stone, and more recently concrete and sheet pile bulkheads has caused extensive disturbance to wharf perimeters, that in some cases had to be cleared and refilled after pilings were in place.

Installation and removal of utilities has also been a major contributor to the disturbance of buried cultural resources. Municipal water lines (Fig.

V.3) and sewer lines (Fig. V.4) enter most properties, while numerous trenches for underground electric cables (Fig. V.5) phone cables (Fig. V.6) and gas lines (Fig. V.7) have also been excavated in the park over the years. Recent installation of buried electric lines on the wharves has been accompanied by archaeological investigations that revealed important data on individual properties as well as on wharf construction (Donta et al. 1998; Garman et al. 1998). Oil tanks and associated lines (Fig. V.8) also represent sources of disturbance in present yard areas and on the wharves. The removal of two tanks at the rear of the Custom House/Public Stores revealed the presence of a previously disturbed eighteenth-century trash pit, but at the same time resulted in the spreading of mixed fill around the surface of the site (Schley 1993). Many out-of-service electric and other utility lines that are long forgotten, remain underground and are likely to be found in future undertakings. Roads and walkways (Fig. V.9) are believed to have had minimum impact on cultural resources because the locations of the main thoroughfares of Derby and Orange Streets as well as alleyways have changed little through time. Walkways, while impacting surface deposits, are likely to have had little impact on deeper deposits.

Despite the innumerable sources of disturbance to SAMA's cultural resources, many deposits clearly remain intact and retain the potential to provide data important to the understanding and interpretation of the park's history and prehistory. The clearest evidence of this derives from archaeological excavations on the wharves that revealed well-preserved remains, and from yard contexts where evidence of Native American habitation in the form of a shell deposit and lithic debitage were found.



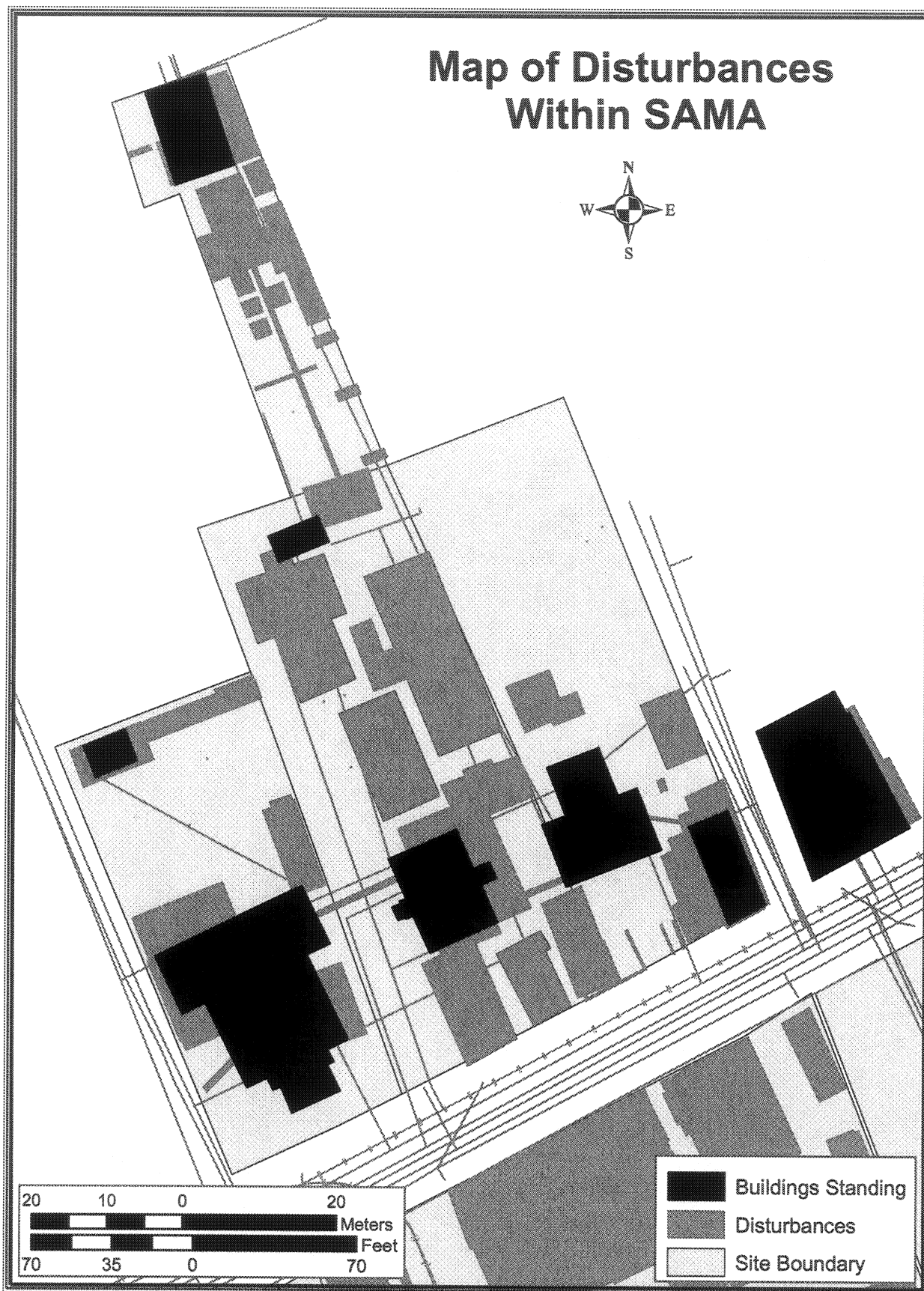


Figure V.1. Map of Disturbances North of Derby Street (Including utility lines, demolished structures, rail lines, and archaeological excavation units)

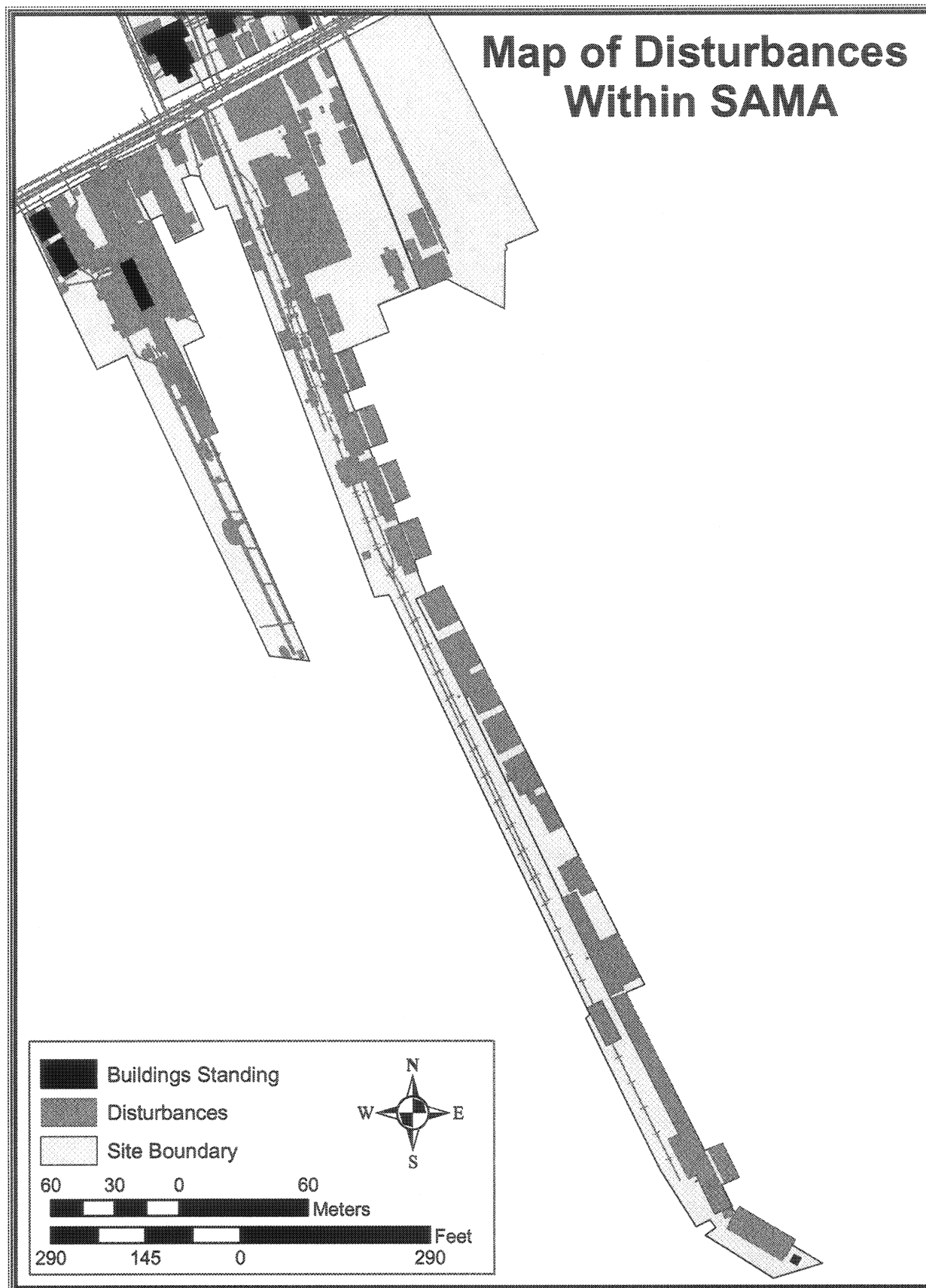


Figure V.2 Map of Disturbances South of Derby Street (Including utility lines, demolished structures, rail lines, and archaeological excavation units)

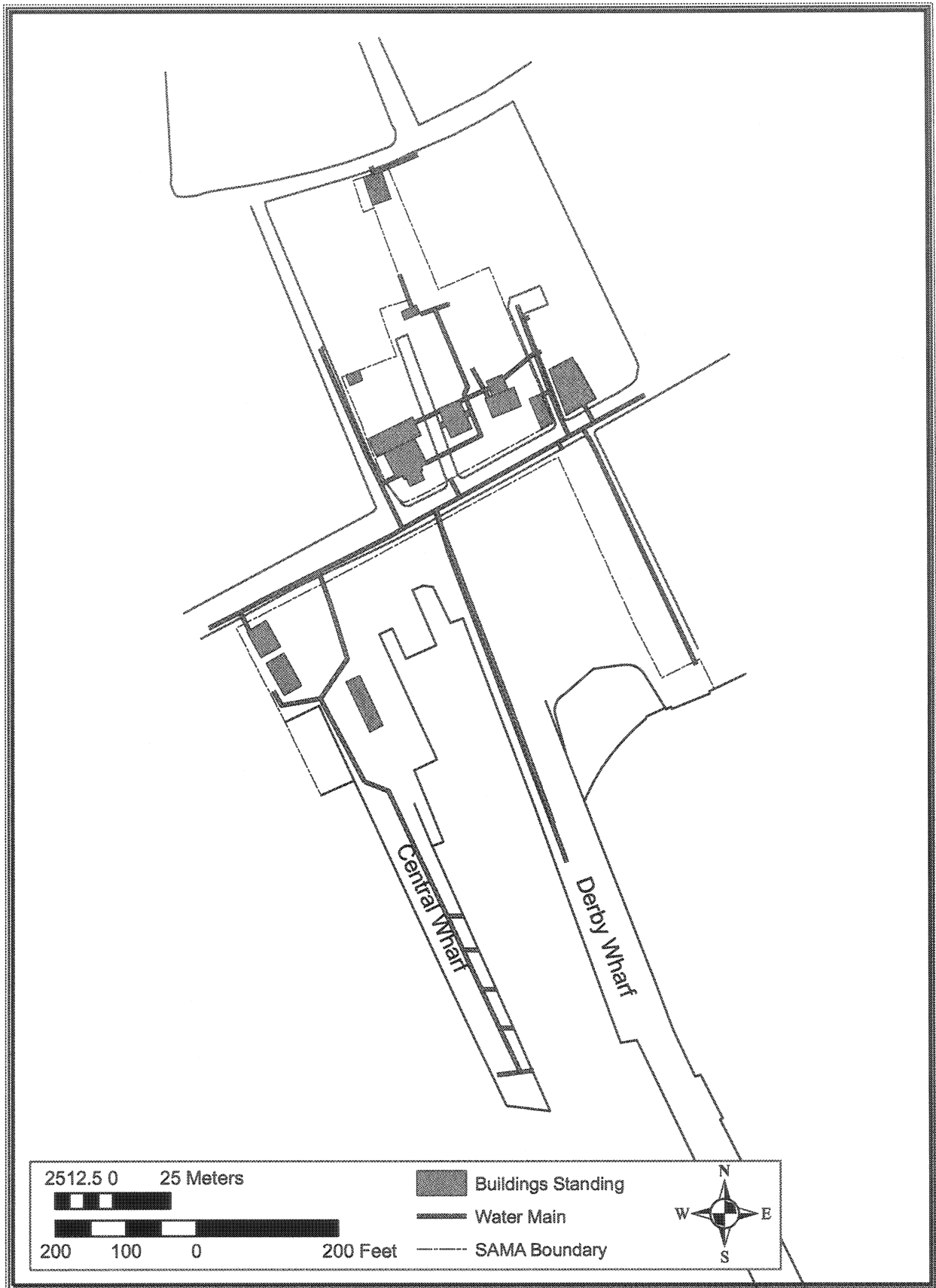


Figure V.3. Map of SAMA Depicting Location of Water Lines.

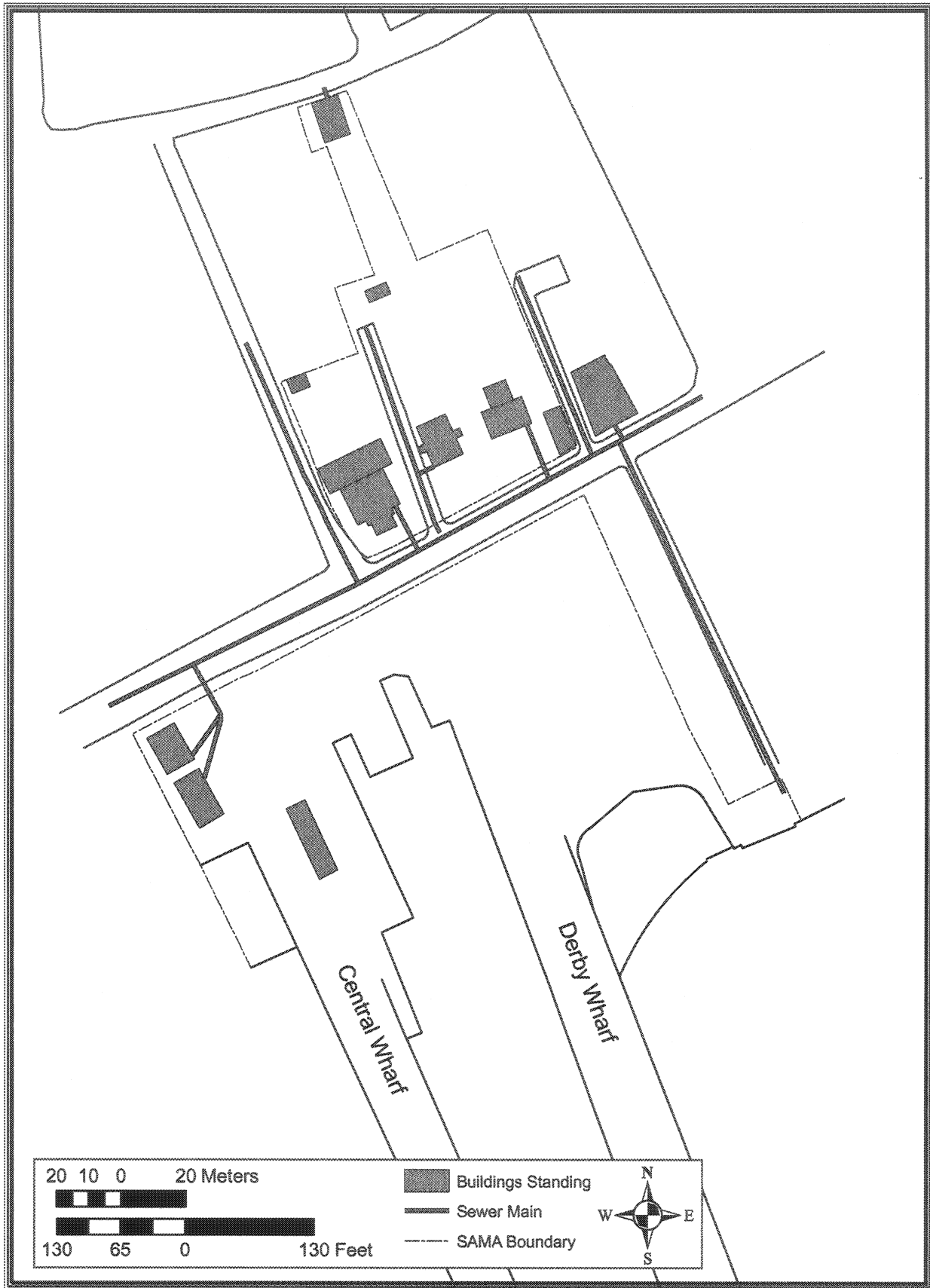


Figure V.4. Map of SAMA Depicting Location of Sewer Lines.

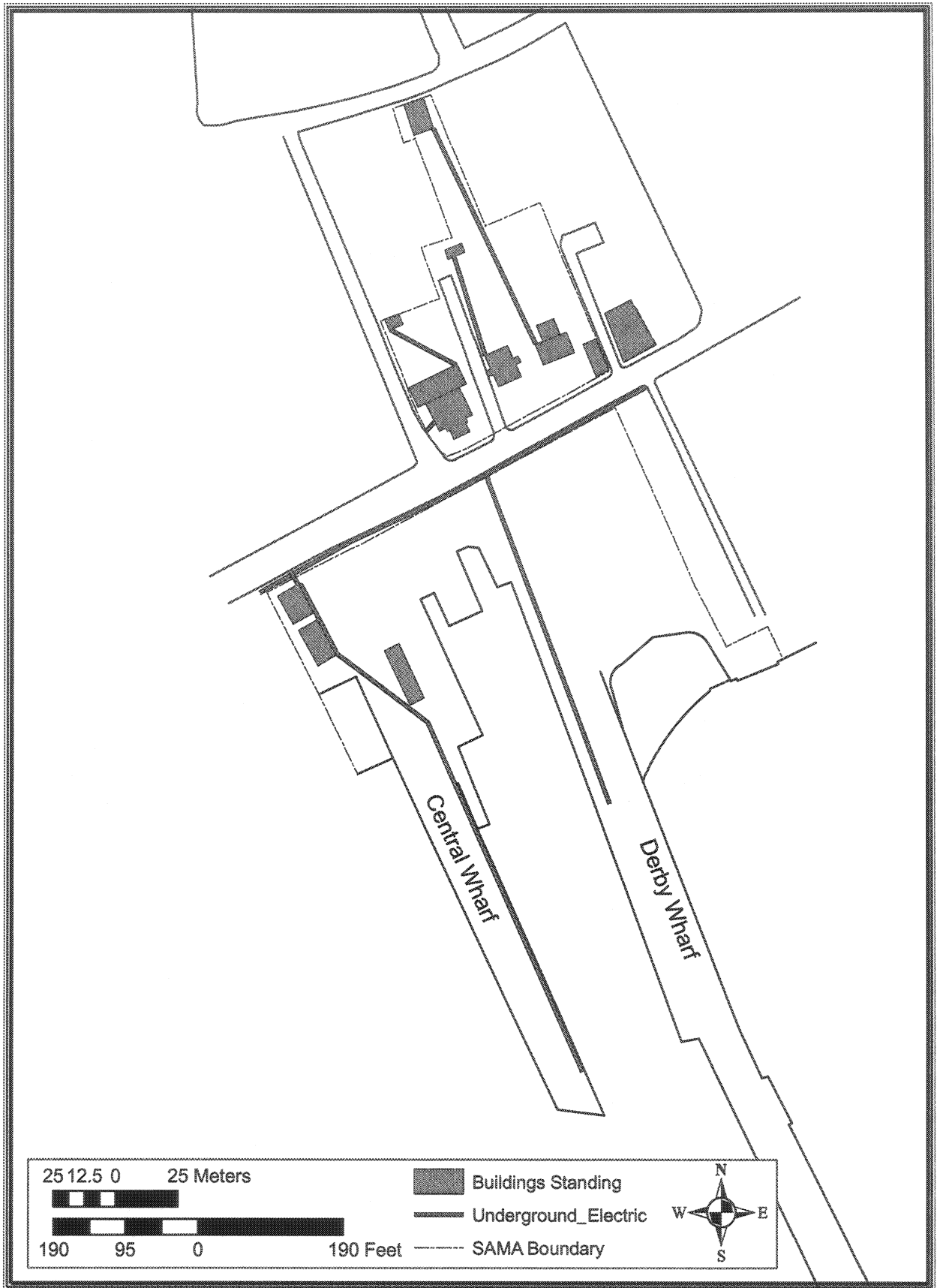


Figure V.5. Map of SAMA Depicting Location of Electric Cables.

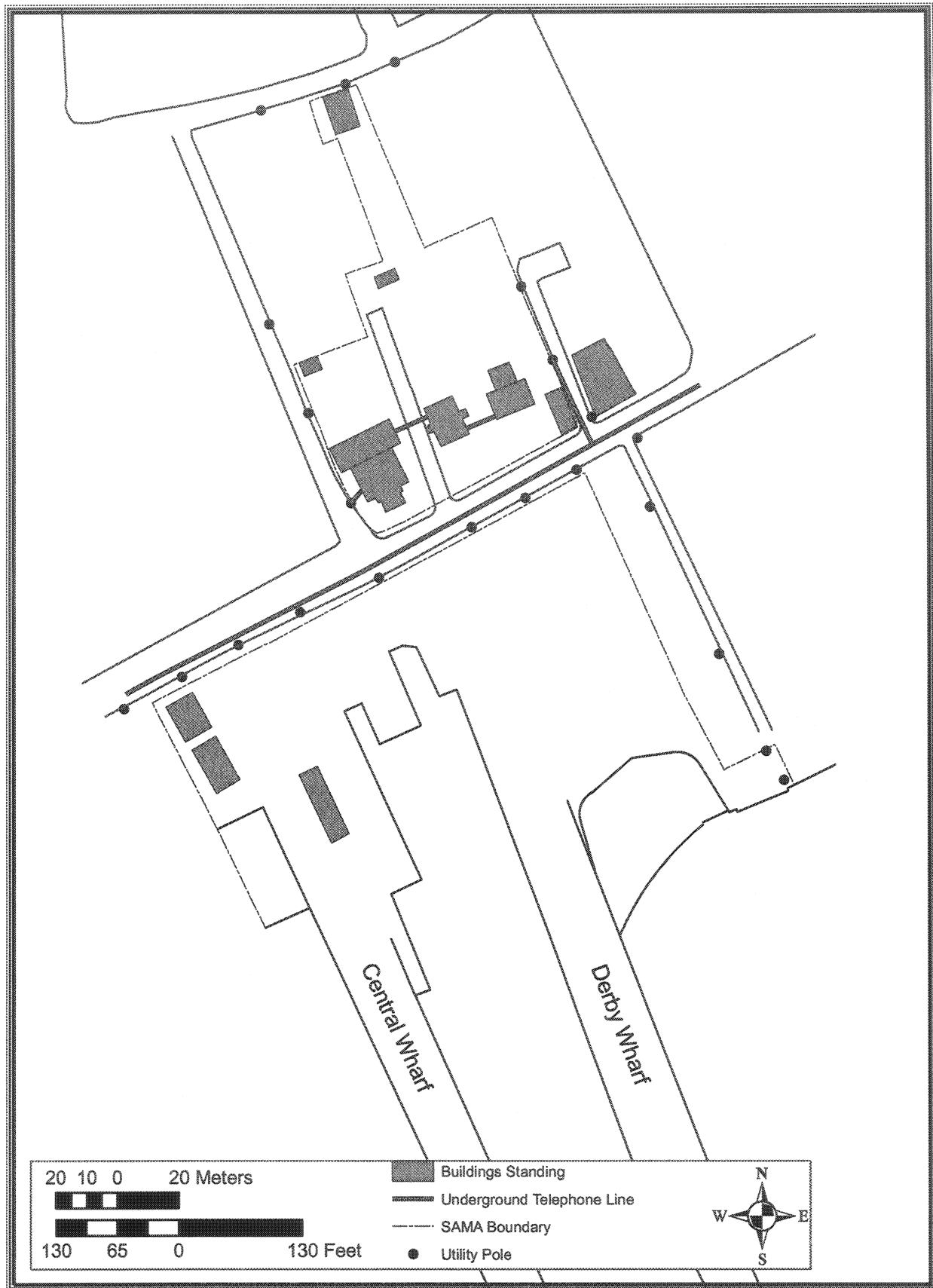


Figure V.6. Map of SAMA Depicting Location of Underground Phone Lines.



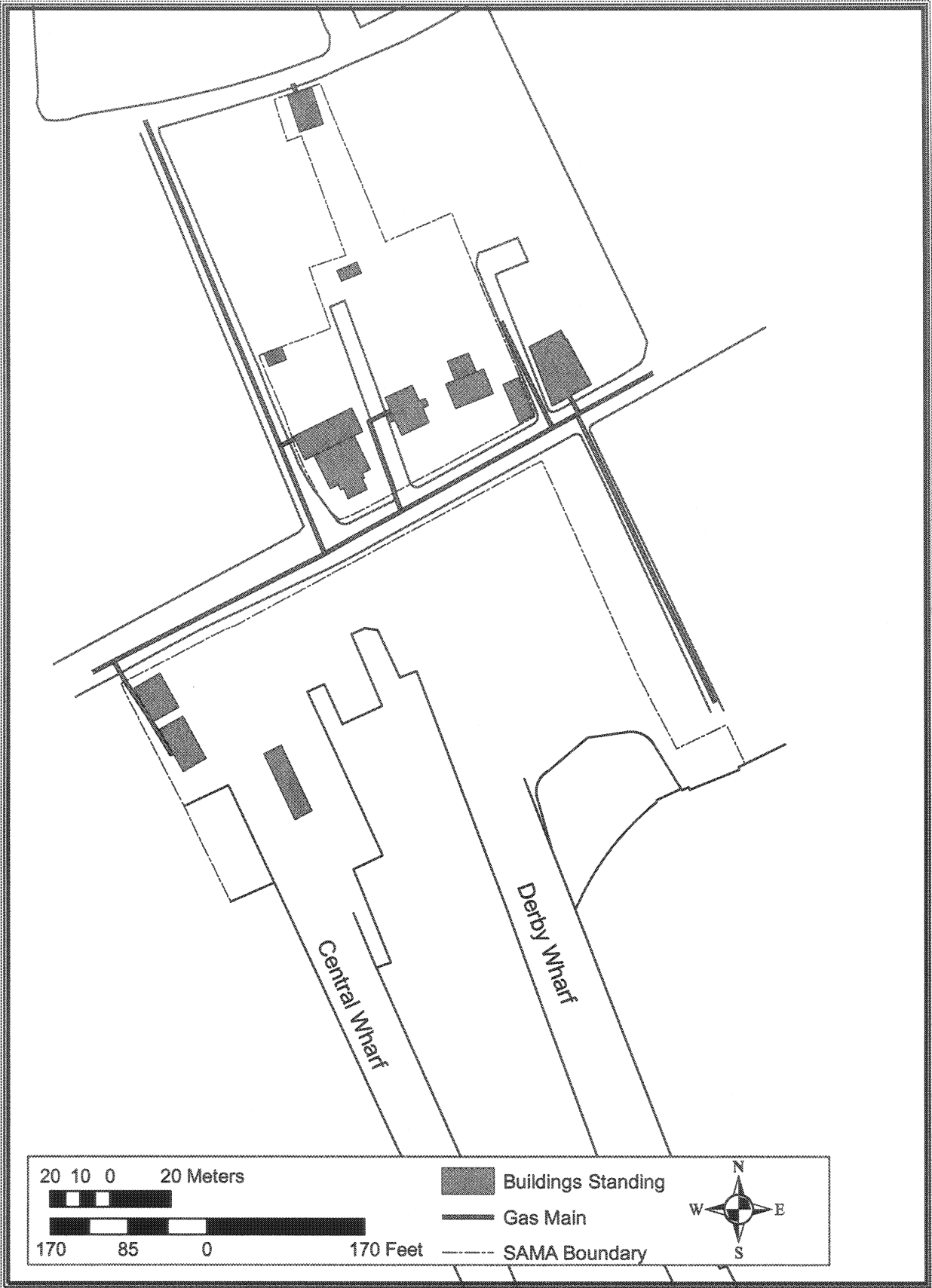


Figure V.7. Map of SAMA Depicting Location of Gas Lines.

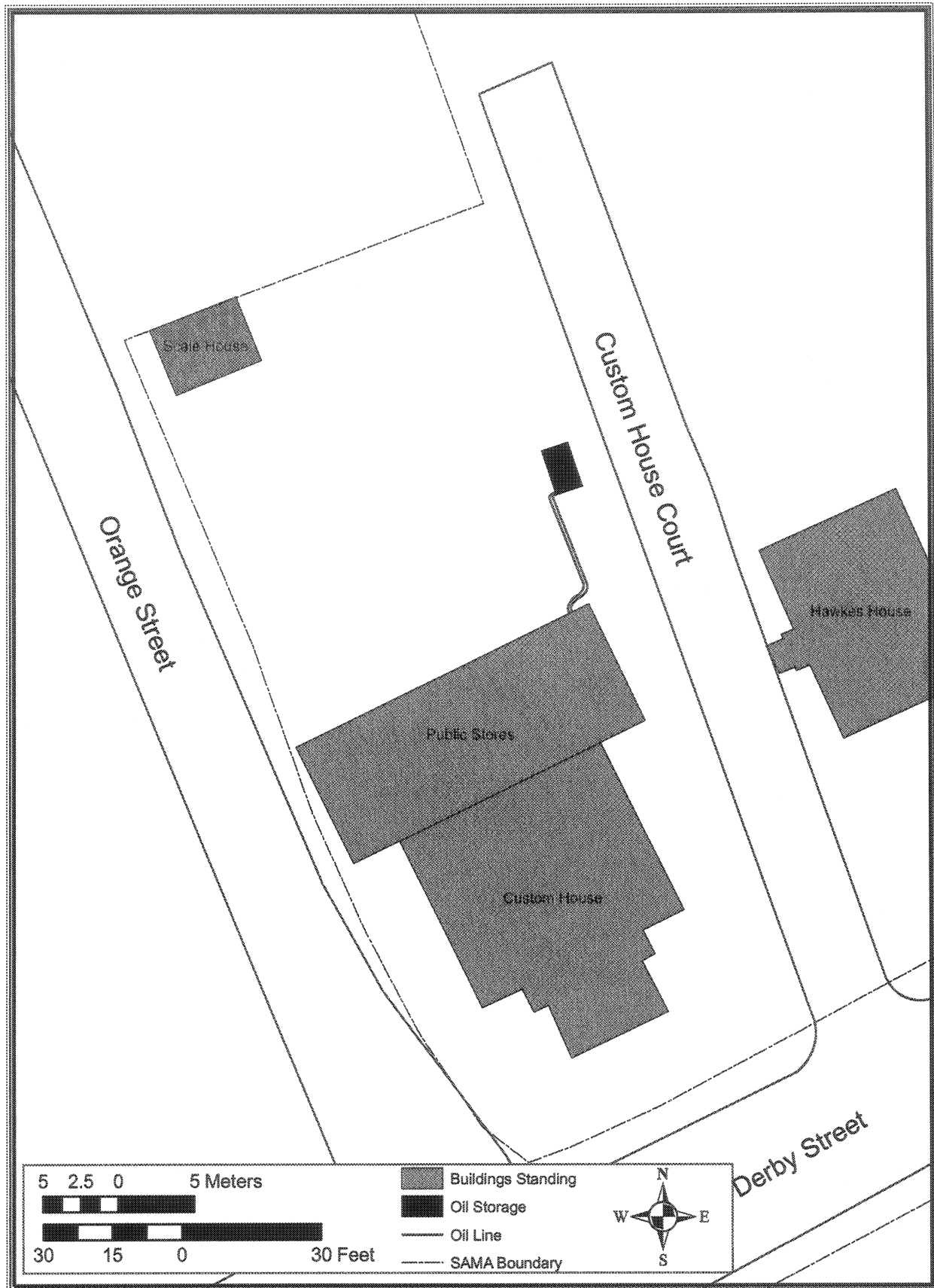


Figure V.8. Map of SAMA Depicting Location of Oil Lines and Tanks.

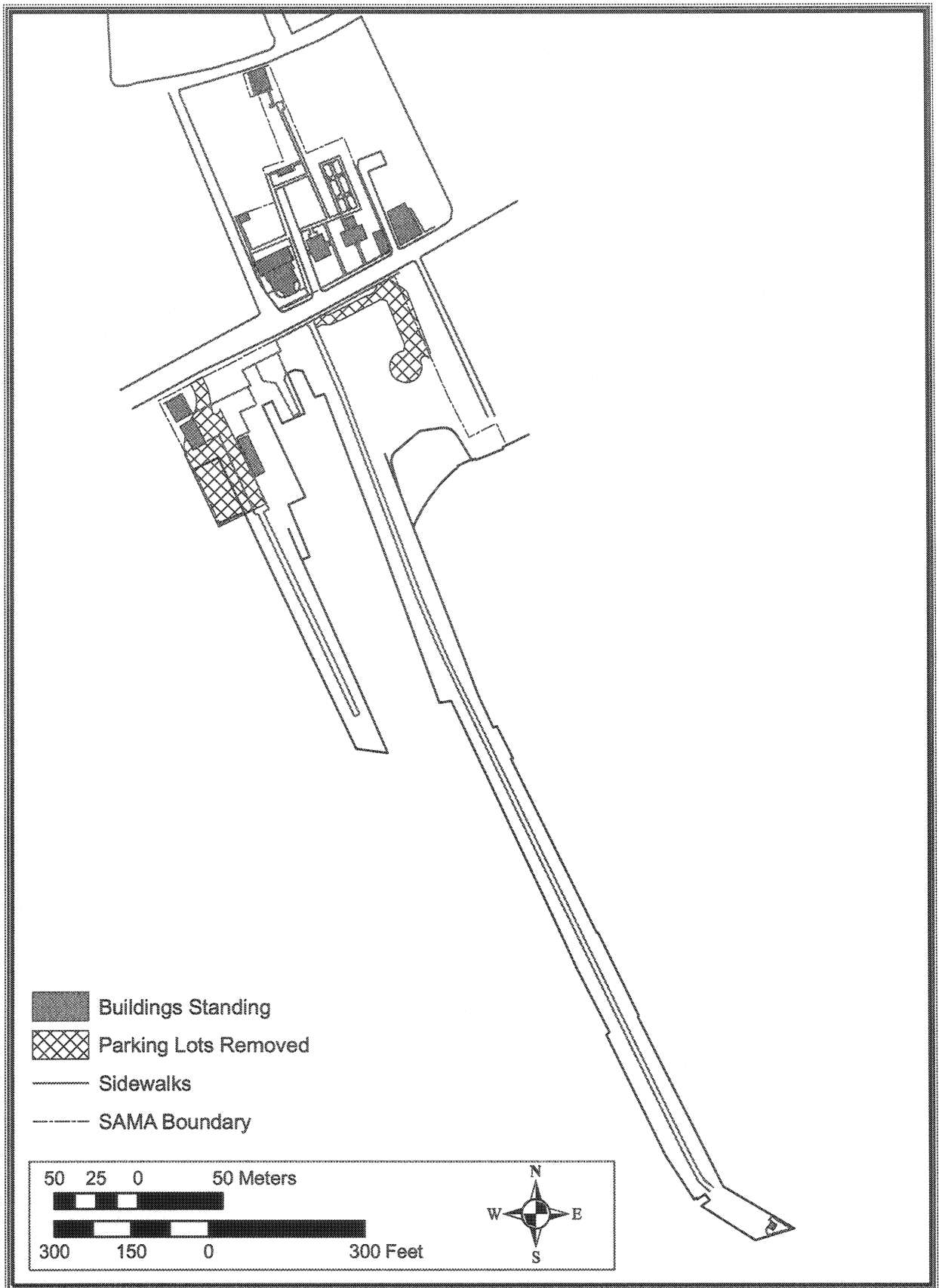


Figure V.9. Map of SAMA Depicting Location of Roads, Walks and Parking Areas.

## VI. KNOWN AND POTENTIAL ARCHAEOLOGICAL RESOURCES

### A. Listing and Evaluation of Archaeological Sites

Compilation and analysis of site reports and documentary sources for the Overview and Assessment resulted in the identification of 2 Native American and 66 historic period archaeological and potential archaeological properties at SAMA. These consist of both sites and subsites. Many of the properties possess a high potential to provide new and/or additional data on the history and interpretation of the park and therefore represent cultural resources of significant importance that should be protected through appropriate management. The summary and assessment of archaeological sites is presented below in general chronological order. Figures VI.5-VI.10 depict site locations and corresponding ASMIS numbers. Figures VI.15-VI.28 are a series of maps based on the Friedlander et al. (1991) report and depict locations of structures and changing wharf boundaries. Structure number references on these maps are the same as those designated by Friedlander et al. (1991) for purposes of consistency.

#### Narbonne House Prehistoric Site

ASMIS No. 00068

##### **Site Location, Description and Context.**

This site consists of a small deposit of shell and charcoal found under the floor of the ell wing.

##### **Documentary Research and**

**Archaeological Investigations.** A review of the Native American sites in the area is presented in this document. The site was removed by contractors and was not archaeologically investigated.

**Site Condition.** The feature representing this site was removed during ell rehabilitation activities in the early 1970s.

**Recommendations.** No recommendations are made for this site due to its destruction.

#### Public Stores Prehistoric Site

ASMIS No. SAMA00069

##### **Site Location, Description and Context.**

This site is located approximately 12 m (40 ft) off the northeast corner of the Public Stores building and was identified by lithic debitage present in an area disturbed by the installation and removal of underground oil storage tanks.

**Documentary Research and Archaeological Investigations.** A review of Native American sites in the area is presented in this document.

**Site Condition.** The site was identified by lithic debitage in a disturbed area. It is not known if the site extends beyond the disturbed area.

**Recommendations.** Future undertakings in the area should be preceded by archaeological testing to determine if portions of this site remain intact.

#### 1661 House Site

ASMIS No. SAMA00014 (Fig. VI.5)

##### **Site Location, Description and Historic**

**Context.** The 1661 house site, consisting of a large domestic dwelling and house lot, is located at the corner of Derby Street and Orange Street (formerly Masury Lane). This lot was subsequently occupied by the 1764 House, Crowninshield family, and is presently occupied by the Custom House and the Public Stores. The 1661 House is referenced as structure 160 by Friedlander et al. (1991).

##### **Documentary Research and**

**Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991), but no archaeological investigations have been conducted.

**Site Condition.** Based on cartographic analysis by Friedlander et al. (1991), it appears as though much of this site has been destroyed by later construction activities.

**Recommendations.** Because there exists a small chance that cultural resources from the

1661 occupation remain intact on this corner lot now occupied by the Custom House and Public Stores, archaeological testing is recommended prior to any undertakings that involve subsurface disturbances.

### **Narbonne House Site**

ASMIS No. SAMA00003 (Fig. VI.5)

**Site Location, Description and Historic Context.** The Narbonne House, at 71 Essex Street, is the oldest standing building in the park and dates to ca.1675. A carriage house was added in the rear yard in 1780 and stood until 1920. This house was acquired by the NPS in 1964. This site is referenced as structures 1 and 13 on the Friedlander et al. (1991) base maps.

The core of this two-story, gable-roofed house was constructed ca. 1669-1672 by either Paul Mansfield or Thomas Ives. A gambrel-roofed one and a half story wing was added to the south end around 1725, and this was followed by construction of a lean-to with shed roof attached to the east side ca. 1750-1800. The property was acquired by Captain Joseph Hodges in the 1750s and was occupied by renters (Snell 1977:12). The house had a single large room on the first floor, a single chamber and attic above, a large chimney and narrow entry at the south end. In 1780, a tanner named Jonathan Andrew purchased the house and property, and after he died in 1781, the property was willed to his four children. His widow, Mary, lived in the house until her death in 1820. One of the heirs, Jonathan Andrew, Jr., a trader, purchased the property from his other three siblings in 1818, and continued to live at the house. In 1844, he bequeathed the house and lot to his niece, Sarah Narbonne, who was a seamstress and widow of Nicholas Narbonne (Snell 1977:101). She lived in the house until she died in 1895, and her daughter, Mary, continued to live there until her death in 1905 (Friedlander 1991:82). The property then was transferred to Mary's cousin, Frank W. Hale and his family, who owned it until 1963 when Mr. Hale's daughter, Margaret sold it to the NPS.

**Documentary Research and Archaeological Investigations.** A significant portion of this site was archaeologically excavated during three field seasons between 1973 and 1975. Investigations initially focused on answering architectural questions. Testing was expanded into the rear yard, where a coach house, dairy, well, five privies, trash pits, and a cobble driveway were identified (Moran et al. 1982). Over 138,000 artifacts were recovered, including a range of late eighteenth-century English ceramics and Chinese porcelain. Although the original portion of the house was built ca. 1671, no clearly defined, undisturbed seventeenth-century deposits were identified during the archaeological investigations. Two shovel test pits were also excavated during a later survey to investigate radar anomalies detected during an archaeological remote sensing survey (Alterman et al. 1995).

**Site Condition.** The surface of the site is landscaped with grass and a pathway. Although a significant portion of the Narbonne House yard has been archaeologically investigated, untested areas are assumed to remain intact.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location that involves ground disturbance in order to identify potential cultural remains on this house lot.

### **1688 House Site**

ASMIS No. SAMA00015 (Fig. VI.5)

**Site Location, Description and Historic Context.** The 1688 house site consists of a large dwelling and house lot located on Derby Street between the present Derby House and Custom House, and under the foundation remains associated with the Hawkes House and other previously existing tenement structures. This site is referenced as structure 159 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). Archaeological investigations are limited to a

remote sensing survey and associated ground truthing.

**Site Condition.** Cartographic analysis by Friedlander et al. (1991) suggests the main structure was completely replaced by the later Hawkes House. The area is presently landscaped in grass and pathways.

**Recommendations.** Although the main structure associated with this site was replaced by later construction, archaeological deposits associated with this early occupation may remain intact on the Hawkes House lot. Therefore, archaeological investigations are recommended prior to ground disturbing undertakings to document the potential presence of such resources.

### Derby House Site

ASMIS No. SAMA00005 (Fig. VI.5)

**Site Location, Description and Historic Context.** The Derby House, the oldest surviving brick dwelling in Salem, was constructed in 1761-1762 by Richard Derby, Sr., for his son, Elias Hasket Derby, who lived there for 20 years before moving to a grander home that took up an entire block on Essex Street. A shed that was constructed ca. 1874 behind the house was converted into an automobile garage (ca. 1936) and was associated with the name Daniel Leahey prior to its demolition after park acquisition. This site is referenced as structure 3 and 96 by Friedlander et al. (1991).

Richard Derby, Sr. purchased this vacant lot on December 11, 1760 from Timothy Mansfield, and almost immediately a two and a half story brick house was constructed as a wedding gift for his son. The house was constructed in the Georgian style with a gambrel roof, five bay windows, four rooms on each of the three floors, and two central halls on the bottom two floors (Snell 1977:6). Elias and his family lived in the house until circa July 1782, when they moved to a large mansion on Washington Street, and rented out the dwelling. The house was then converted into a two family structure; one half rented out to William Wetmore in 1785, and then to mariner

John Ropes, Jr. from October 18, 1788 until May 20, 1796. The other portion was occupied by Elias' son, John (Snell 1977:25).

In 1796, Elias Derby sold the house and lot to Captain Henry Prince, who formerly had captained some of Elias Derby's ships from 1795-1799 and was a partner with another esteemed Salem merchant, Stephen Phillips. Prince enlarged the property by buying vacant land adjacent to the southwest corner of the house from William Balch Parker, and built a two-story wooden store on the southeast corner of the property for the goods his vessels brought from Africa and the West Indies (known today as the West India Goods Store) (Snell 1977:53). By 1827 Prince and his family were hit with financial trouble. Under a court order the title to the house, store, and his brig *Ann* was given to the Merchants Bank of Salem. The lot was sold to Prince's nephew Henry Ropes and John W. Osgood, a Baltimore merchant (Snell 1977:93). In 1840, Osgood conveyed his half interest to the Naumkeag Bank, which then sold it to Henry Ropes (Friedlander 1991:84).

Ropes and his family lived in the house starting in 1827, and within ten years it had been converted into a duplex. In 1837 the *Salem Directory* lists Henry Ropes, mariner, and Benjamin Ropes, painter, in one half, and William Peele, pump and blockmaker, in the other half. Subsequent directories list several members of the Ropes family living in the house, and a change in the other occupancy in 1851, when Ropes had leased half of the house to Richard Wheatland, an inspector at the Custom House, and his family (*Salem Directory* 1837:51). When Henry Ropes died in 1861, the second household was rented out to a machinist, Irvington S. Baret and his family. Henry Ropes' widow passed away in 1865 and her heirs sold the house to Johanna, Daniel, Catherine, and Michael Leahy in 1873 (Friedlander et al. 1991:85). In 1881, Catherine and John Noonan occupied the other half of the house. By 1895, Catherine Leahy held title to the entire property, and six years later the house was



converted into separate apartments. Salem Directories from that time list the residents of 168 Derby Street (which had recently been changed from Number 106) as Catherine Noonan, Thomas Deasy and Michael Walsh (Friedlander et al. 1991: 85). In 1911, Joseph Kohn bought the property and continued to rent out the house to tenants. He moved the West India Goods Store that stood on the corner of Derby Street and Palfrey Court to the southwestern corner of the lot and built a new store on the vacated corner (Friedlander et al. 1991:85).

In 1927, Kohn sold the house and West India Goods Store to the Corresponding Secretary of the Society for the Preservation of New England Antiquities (SPNEA), William S. Appleton, who passed the title to the property on June 27<sup>th</sup> to the society. SPNEA restored and repaired the house for the next ten years and donated their lot to the Federal Government in November of 1937 so that it could be incorporated into the new park (Friedlander et al. 1991:85). In December 1937, the city of Salem conveyed the buildings and lot to the US Government to become part of a "National Historic Monument" (Snell 1976b:11). Kohn had maintained the property where he constructed a new store until 1937 when the city of Salem seized it by right of eminent domain and subsequently donated it to the Federal Government.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). In June and July of 1990 and in May of 1992, Louis Berger Associates (LBA) conducted a remote sensing investigation to locate potential archaeological targets and perform archaeological testing at the location of a large, irregular anomaly between .9 and 1.3 ft below the surface in the rear yard of the Derby House. Two test pits were excavated near the fence along Palfrey Court. Historical maps of the area indicate that the anomalies investigated by the test pits were within an area previously occupied by a tenement building that was demolished by the NPS in 1938 (Friedlander

et al. 1991). At that time cellars were excavated, rubble was removed, and the area was filled, graded, and landscaped.

**Site Condition.** An indication of the extent of soil disturbance in this area was revealed during the 1990 survey, when NPS maintenance workers encountered up to 8 feet of "topsoil," while planting a garden behind the Derby House. Thus, certain portions of the rear and side yards are predicted to have low potential for intact archaeological resources.

The front yard area of the Derby House is also considered to have varied potential for intact archaeological deposits because a series of stores was erected in front of the Derby House beginning in the first half of the nineteenth-century. The construction and later removal of these structures would have created considerable ground disturbance. In addition, landscaping in front of the Derby House, including the planting and removal of full-grown trees, would certainly have impacted archaeological deposits.

**Recommendations.** The Derby House yard area is considered to have medium to low potential for intact archaeological deposits due to the extensive construction and demolition that has occurred on the site. Despite these findings, the Derby house is an important site and it is still possible that some archaeological resources associated with the site's occupants may remain intact on the Derby House lot, particularly in the rear yard. It is, therefore, recommended that any ground disturbing undertakings in the interior or exterior of Derby House be preceded by archaeological investigations to document such resources if they are present.

### **Derby Wharf Site**

ASMIS No. SAMA00001 (Figs. VI.7-VI.9)

**Site Location, Description and Historic Context.** Derby Wharf is a large site with a number of sub-sites associated with it. Derby Wharf extends approximately 2,045 ft. from Derby Street into the channel of Salem Harbor. A small brick lighthouse, (Structure 11) built for the

US Lighthouse Service in 1871, is located on the south end of the wharf. The wharf was largely rebuilt by the NPS in 1938, immediately after its acquisition. Two wooden finger piers were added to the east side of the wharf in 1966, when the NPS entered into a cooperative agreement with the city of Salem to build and operate public boat landings (Brady and Wilson 1982:1, 29). A concession permit allowed the brigantine *Republic*, a historic period sailing ship, museum, and gift shop, to dock on the west side of Derby Wharf, approximately 250 ft. from its northernmost jog (Brady and Wilson 1982:2). This arrangement existed until 1983. More recently, *Friendship* has been docked on its west side.

Waterfront wharf construction began around 1762 after Richard Derby, father of Elias Hasket Derby, acquired three waterfront lots (A,B, and C in Fig VI.11) that consisted of beach and mud flats. At the time, common wharf building techniques consisted of crib (also known as cobb) construction in which a series of wooden timber cribs with solid timber floors were constructed on land and then floated into position. The cribs were sunk in place by filling them with stones or other fill material. Guide piles held the cribs in position as they were filled and came to rest on the harbor bottom. Additional stones and timbers could be added to achieve a desired height. Erosion of crib fill could be minimized by covering crib sides with wood plank or stone walls. This wharf building technique was long thought to characterize the early construction of Derby Wharf, but archaeological investigations revealed the construction of a series of wood timber bulkheads supported by horizontal tieback timbers and vertical pilings (Garman et al. 1998:11, 74-80). Four stages of construction have been identified, with the first three consisting of bulkhead and fill sequences. These were followed in the early nineteenth century by crib construction that was employed for the southern extension of Derby Wharf and for Central Wharf. By 1771, Derby wharf extended 803 feet south into the harbor and had two commercial buildings, the "Upper Store"

(Structure 143) built by Elias Hasket Derby at the northern end of the wharf in 1765 and the "Lower Store" (Structure 137) built by Richard Derby in 1771 at the southern end (Friedlander 1991:9).

When Richard Derby died in 1783, Elias Hasket Derby inherited the wharf and buildings. He immediately began to expand his mercantile enterprise by constructing a ship repair works on the beach east of the wharf (Garman et al, 1998:12), and by 1790 leased out Lots A and B for a shipbuilding yard (Snell 1977:17-18; Fig. 3.8). In 1794, Elias had two more buildings constructed on the wharf, a storehouse that stood on piles at the wharf's eastern edge, and a storehouse on the southern end. Both structures were of three stories with hipped roofs and no chimneys (Garman et al, 1998: 13). When Elias Derby died in 1799, Derby Wharf was divided into Lots C and H (Fig. VI.13). Lot C, containing the eastern warehouse, was bequeathed to Elias' son, John, and was named "John Derby's New Store." Lot H was made up of the remainder of Derby Wharf that stretched into the South River. This section contained seven warehouse lots on the wharf's eastern edge (Friedlander et al. 1991: 116).

Between 1806 and 1808, six of Elias Hasket Derby's heirs constructed New Derby Wharf on Lot I. This wharf consisted of two timber sections, the Extension and Lower Pier, which extended the wharf 1,124 feet into the South River (Friedlander 1991:121). Starting in 1824, the wharf was faced with stone sea walls. The surface of the Extension was divided into thirteen lots leased by the Derby Wharf Corporation, eight of which had frame warehouses by 1812. The Lower Pier had one warehouse (Friedlander et al. 1991:121).

As the nature of activity on Derby Wharf shifted from overseas trade to fish cleaning, canning, etc., the area of the wharf fronting Derby Street became of mixed-use residential/commercial structures such as a bakery and pool hall frequented by working class and immigrant groups (Friedlander et al. 1991:125). Foster's grocery

was still at the head of the wharf through at least 1897 and N.O. Very, whose business was on Hatch's Wharf in the 1890s, erected buildings for storage of coal, wood, or bark, behind Foster's store. The area changed, however, between 1900 and 1911 (Fig. VI.1, VI.2). Very's storage buildings were taken over by the Boston and Northern Street Railway Company that came to dominate the wharf. Clara Kotarski controlled all of the property on the south side of Derby Street from Nos. 165 to 175 (Friedlander et al. 1991:125). The Salem Bakery Company, Standard Flour Company, a pool hall, and tenements crowded the area.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). Archaeological remote sensing, monitoring, and testing was conducted in 1992 (Alterman et al. 1995). Archaeological survey by UMAS in 1992-1993 (Garman et al. 1998) located and documented the following archaeological features: (1) early timber remains from the wharf's interior, (2) a sheet midden at the base of the wharf, (3) foundation remains and refuse associated with the nineteenth century warehouse known as John Prince's Store, and (4) foundation remains and refuse associated with a second nineteenth-century warehouse (Garman et al. 1998). Follow-up excavations in 2003 tested the location of new underground utilities and documented several areas of disturbance as well as areas of intact archaeological remains (Stull 2004).

**Site Condition.** Derby Wharf is currently covered with grass, crushed stone pathways, and brick sidewalks. It is presently in good condition, but a number of natural and human actions have disturbed the integrity of certain portions of the wharf. Major storms have periodically eroded and washed away surficial wharf fill deposits. Large-scale archaeological excavations conducted to collect data on the wharf structure and foundation also caused disturbances in several areas as have various utility installation projects. Wharf reconstruction work conducted by the WPA in 1938 was also believed to have severely impacted

both Derby and Central Wharves (Alterman et al. 1995), but findings by Garman et al. (1998) suggest the site is actually well preserved.

**Recommendations.** While there are major portions of Derby Wharf that are known to be disturbed, there are many more that are believed to be relatively undisturbed. Because this is the case, and due to the fact that the entire structure represents a significant architectural and archaeological resource, archaeological monitoring and/or excavation is recommended prior to or during any undertaking that involves subsurface disturbance.

### 1764 House Site

ASMIS No. SAMA00016 (Fig. VI.5)

**Site Location, Description and Historic Context.** The 1764 house site consists of a small dwelling house and houselot located immediately west of present Custom House Court and east of the 1661 house. This structure and lot were subsumed into the 1771 Crowninshield property, all of which is located on the Custom House and Public Stores lots on the corner of Derby and Orange Streets respectively. This site is referenced as structure 155 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991), but no archaeological investigations have been conducted.

**Site Condition.** Much of this site was destroyed by construction of the Custom House. It is possible, however, that remnants of the 1764 House foundation/cellar may be present between the Custom House and Custom House Court. The area is presently landscaped.

**Recommendations.** Due to the potential presence of associated archaeological deposits, archaeological investigations are recommended prior to any subsurface undertakings in this area.

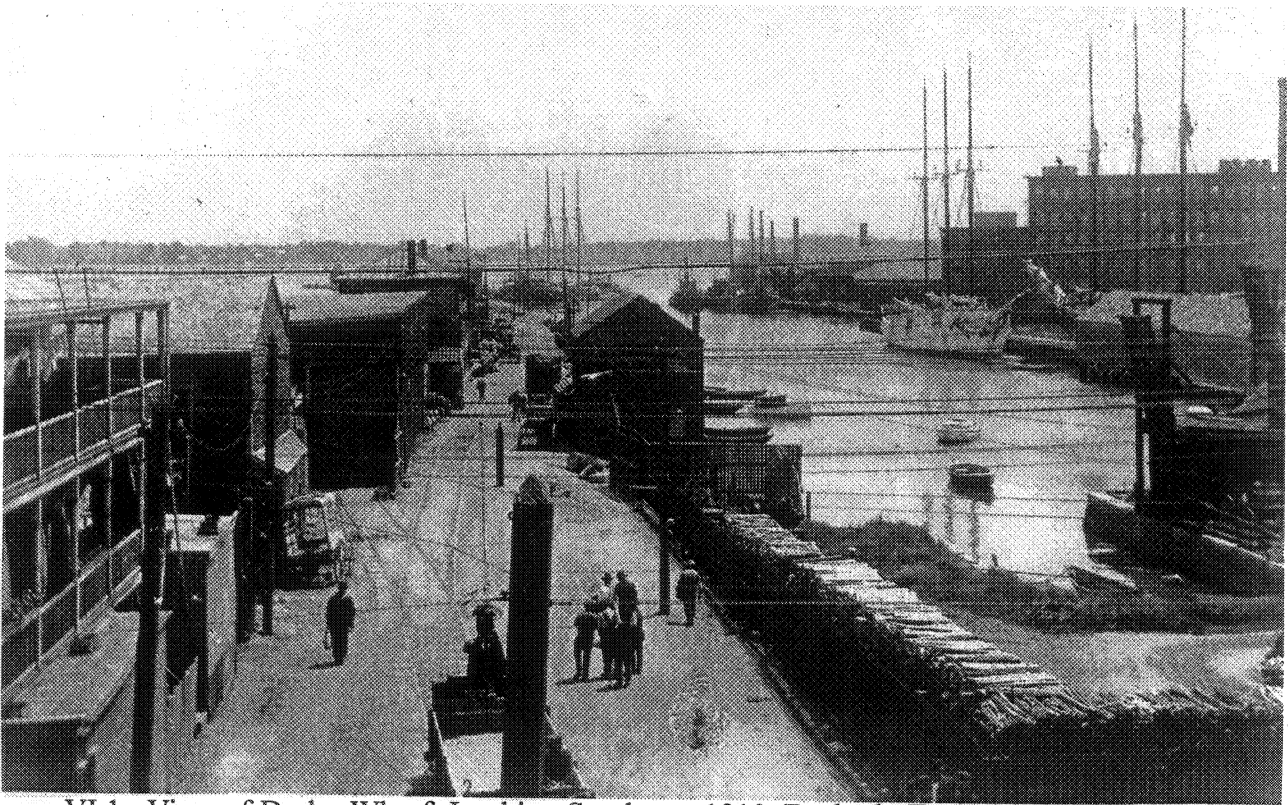


Figure VI.1. View of Derby Wharf, Looking South, ca. 1910 (Peabody Essex Museum Collection, neg. 16366).



Figure VI.2. View of Derby Wharf Looking South from the Top of the Custom House, ca. 1930 (Peabody Essex Museum Collection, neg. 9616).



### **Richard Derby's Store or Lower Store Site**

ASMIS No. SAMA00017 (Fig. VI.8)

#### **Site Location, Description and Historic Context.**

John Franfield, Daniel Spoffard, and Abner Combard constructed this warehouse in 1771 for Richard Derby. It was located approximately 700 ft (213 m) south of Derby Street and was the second oldest building on the wharf (Friedlander, 1991:120). This was a three-story frame structure that measured 60' 6" x 25' 2" with a gable roof, three bays on the front elevation and one bay on the southern end. In 1800, Elias Hasket Derby Jr. moved the warehouse and set it on piles in line with the other warehouses that existed on the east side of the wharf. The lower floor was divided into stores 15 and 16, with the counting room above. In 1814, Elias Derby, Jr. sold the lot and warehouse, along with his 1/7 interest in Old Derby Wharf and New Derby Wharf (the Derby Wharf Corporation) to Walter Channing of Newport, R.I. (Snell 1977:75). In 1830, Channing moved the warehouse back onto the wharf and possibly onto its original granite foundation (Snell 1974a:89-91; Friedlander 1991:120). This site is referenced as Structure 137 by Friedlander et al. (1991:120).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and (Friedlander et al. 1991). No known archaeological investigations have been conducted.

**Site Condition.** This site is currently covered with crushed stone pathways and grass. Conditions of the archaeological deposits are unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf disturbed some archaeological deposits.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document store associated archaeological deposits as well as details of wharf construction.

### **Crowninshield House Site**

ASMIS No. SAMA00018 (Fig. VI.5)

**Site Location, Description and Historic Context.** The Crowninshield House site (1771-1819) was located on the corner of Derby Street and Orange Street (formerly Crowninshield's Lane). This site also includes an accompanying stable (ca.1771), woodshed (ca.1805) and row of outhouses along the north property line. The main house site was likely destroyed by construction of the present Custom House and Public Stores. This site is referenced as structures 153, 142, 151, and 152 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). The only archaeological investigation consisted of a remote sensing survey (Alterman et al. 1995) designed to identify potential underground anomalies (see Custom House).

**Site Condition.** The Crowninshield component of the site was disturbed by construction of the Custom House and Public Stores structures in 1818-1819. The stable, located in the northwest corner of the property, burned in 1829 and was replaced by the present brick Scale House. The yard areas of the present Custom House and Public Stores are landscaped in grass and walkways.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking to document archaeological deposits that are potentially associated with the Crowninshield occupation or earlier and later occupations.

### **Elias Hasket Derby's Counting House or Upper Store Site**

ASMIS No. SAMA00019 (Fig. VI.9)

**Site Location, Description and Historic Context.** Elias Hasket Derby's Counting House (1765-1819) was constructed on Derby Street at the head (north end) of Derby Wharf. Lot C was purchased on August 19, 1762 by Richard Derby from Margaret Silsbee and Mary Renew, and was

immediately filled in preparation for wharf construction (Snell 1977:2). In 1765, a three-story frame structure measuring 60' 9" x 23' 9", was erected on the northern end of the lot near the wharf's western side. This building was E.H. Derby's store and counting house, colloquially known as "the Upper Store" (Snell, 1977: 18-19). This store most likely carried the goods brought to Salem on Derby ships. In 1784, a chimney, fireplace, and interior stairway to the second floor counting room were constructed and the interior was lathed and plastered, while the exterior was sided with clapboards and the roof shingled (Friedlander 1991:117). When Elias Derby died, this lot and warehouse were willed to his son Richard Crowninshield Derby, and in 1806 was bought by Richard's brother John. John Derby removed the building in 1819 as part of an agreement with the US Government to build the new Custom House on Derby Street. He also agreed to keep the lot clear of any new structures to help decrease the chance of fire to the Custom House (Snell 1977:81). This site is referenced as structure 143 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). Archaeological investigations conducted by Stull (2002) revealed the building's eastern foundation in test trench 22. No other work has been undertaken on this site.

**Site Condition.** The site is currently covered with paved red brick pathways and grass. It is not known if archaeological remains of this structure are intact or if they have been disturbed.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document potential archaeological deposits associated with the Store and with construction of the wharf.

### **Hawkes House Site**

ASMIS No. SAMA00004 (Fig. VI.5)

**Site Location, Description and Historic Context.** The Hawkes House, which now houses

NPS offices, is situated between the Derby House and the Custom House on Derby Street. Elias Hasket Derby bought the property occupied by Josias Adee and Sarah Bean (since 1764) in 1771 and demolished the two-family frame house on the lot. He also acquired an adjacent lot, which was to be the rear yard of the new mansion that was started in 1780-1, but was never finished (Friedlander et al. 1991:93). From 1782-1799, Derby used this structure as a warehouse and supposedly the workmen's shops for his shipyard were located on the property. When Elias died in 1799, his son John inherited the property and subdivided it into five parcels. (Friedlander, 1991:93) Benjamin Hawkes and his partner, William Parker, bought three of the parcels in 1801. By 1827, Hawkes controlled the entire property by buying out Parker's interests and acquiring the other two subdivisions from the heirs of George Crowninshield. Hawkes converted the warehouse into a two-family house that he and his son Benjamin Jr. lived in (Snell, 1976a:6). In 1830, the Salem Merchants Bank assumed control of the house from Hawkes, and Benjamin Cox purchased the property on November 1, 1833 (Friedlander 1991:93).

Cox converted the house into a four-unit tenant house, which was lived in until 1843. Cox modernized the house during this period by connecting it to the local aqueduct, putting in Franklin stoves for heat, re-painting and wallpapering, covering up the well, and cleaning and repairing the drains (Friedlander 1991:95). In 1835, an extension was constructed to the east that probably contained a boarding house, and in 1836 a store and barn were built. The store was leased to a series of tenants; James Ball from January 1839 to January 1840, E.M. Pearson for five months after, Daniel Gardner and Samuel King dividing the store from April to December 1840, and Frederick Powell and Daniel Lawrence taking over Gardner's upper store (Friedlander 1991:103). In 1850 shoe manufacturer, Daniel Meady, lived in one portion of the household along with several women, indicating the possible presence of a small-scale shoe manufacturing shop (Friedlander 1991:103). For the next ten



years, various artisans, teamsters, mariners, machinists, and printers occupied the units.

The property on which the Hawkes House stands, along with other tenements, changed hands many times from 1867-1907. In 1867, Charles G. Pettingell, owner of a fish processing plant on Derby Wharf, and his partners in the Derby Wharf Corporation, Charles A. Ropes and Joseph F. Walden, bought the property. They sold it in 1872 to the partnership of Harrison O. Flint and Edward A. Goldthwaite. (Snell 1977:25-26). The property was purchased in 1907 by Herman Tyburc, who lived in the 1836 Cox House. Tyburc leased the tenements in the Hawkes house and in the apartment buildings behind it (known as Custom House Court) after 1872 (Friedlander 1991:110). The families who crowded into these dwellings in the early twentieth century were working class immigrants of Irish, Russian and Polish decent who continued to live on the property until it was acquired by the Federal Government in 1937. The unfinished 1780 structure is referenced by Friedlander et al. (1991) as Structure 154, while the 1801 Hawks House is Structure 5.

#### **Documentary Research and**

**Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). In June and July of 1990 and May of 1992, Louis Berger Associates (Bevan 1990; Alterman et al. 1995) conducted a remote sensing investigation to locate potential archaeological targets and perform archaeological testing at the location of a soil anomaly interpreted as a circular, planar feature about 4.9 m (16 ft) in diameter that surrounded a 3-foot-diameter tree in the rear yard of the Hawkes House. Seven test pits were excavated to examine this soil anomaly. All seven of the test pits were located about 70 feet north of the rear wall of the Hawkes House.

**Site Condition.** Historical maps of the area indicate that the anomalies investigated by the test pits were within an area previously occupied by a tenement building that was demolished by the NPS in 1938 (Friedlander et al. 1991). At

that time cellars of demolished buildings were excavated, rubble was removed, and the areas were filled, graded, and landscaped. Other structures were also present in the rear yard, all of which would have disturbed earlier cultural resources. Much of the front yard has been disturbed by a series of stores that were erected during the nineteenth and twentieth centuries. Construction and later removal of these undoubtedly created considerable ground disturbance. NPS landscaping in front of the Hawkes House, including the planting and removal of full-grown trees has also impacted archaeological deposits. Both the rear and front yards are presently landscaped in grass and walkways.

**Recommendations.** Much of the yard area of the Hawkes House lot is considered to have medium to low potential for intact archaeological remains due not only to the high number of buildings that have been constructed and demolished over the years, but due to the method of site clearance employed by the NPS. Although the degree of disturbance indicates few archaeological deposits associated with the early occupation of the property may be present, certain areas of the yard retain potential for such resources. The east and rear yard areas contained fewer structures and may yet retain resources important to the early history of the site. It is recommended, therefore, that subsurface undertakings be preceded by archaeological testing to determine the degree of disturbance within the yard and to document archaeological deposits that may be preserved.

#### **Central Wharf Site**

ASMIS No. SAMA00002 (Fig. VI. 6)

**Site Location, Description and Historic Context.** Central Wharf, formerly known as Forrester's Wharf after Simon Forrester, is located 150 ft west of Derby Wharf and extends approximately 800 ft from Derby Street into the mouth of the South River. This is a large site with a number of sub-sites affiliated with it. In 1768, Captain John White, owner of Lot E that is now part of modern day Derby Wharf, bought

vacant beach land and flats from John Browne and constructed a timber wharf and warehouse (Figs. VI.11, VI.12). In 1793, Salem merchant Joseph White purchased the property from Captain White and widened the wharf as well as refurbished the warehouse. By 1818, this expanded wharf, consisting of timber frames and cobb construction, had an "L" shape and extended from Derby Street about 150 feet into the South River (Snell 1974:57) (Fig. VI.13). Between 1818 and 1859 an area at the head of the dock was filled in and two structures were built. The wharf was extended further in 1834 by Theophilus Sanborn who maintained the dock's 'L'-shape (Friedlander et al. 1991:130). A coal shed and office were added in the latter part of the nineteenth century since the wharf was utilized for coal landing. In 1889, Stephen Whipple purchased the property and it remained in his family until 1934 when the lot was transferred to the Association for the Relief of Aged and Destitute Women of Salem. In 1935, all the buildings on the wharf were removed (Friedlander et al. 1991:130) (Fig. VI.3).

In 1791, Captain Jonathan Ingersoll sold a narrow lot (Lot F) that included waterfront property to Captain Simon Forrester. This property had been in the Ingersoll family for forty-four years, first acquired from Richard Derby in 1747. When Forrester purchased the land, it included a new but unfinished mansion, a cobb wharf, and a warehouse (Snell 1974:8). Captain Forrester completed the mansion and enlarged the wharf to the east from 1791-1792 through exchange with his neighbor, William Browne, who owned a wharf and small warehouse. The wharf was expanded to the west in 1795. He also constructed a new three-story, hipped roof warehouse on the west side of the property in 1793 that extended back sixty feet from Derby Street. In 1798, he expanded the wharf eastward again by buying 16 feet of property from Captain Joseph White who now owned Brown's wharf (Friedlander et al. 1991:137). Forrester also extended the wharf into the harbor twice from 1791-1804, resulting in a seven hundred and ninety-five foot pier. Sometime between 1798 and 1832, a three-story

brick warehouse was built on the east side of the wharf and was leased in 1832 to Ebenezer Seccomb (Friedlander et al. 1991:138).

In 1834, Simon Forrester's son, John, sold the wharf, "stores," and flats to Benjamin Merrill and Nathan W. Neal, and six months later it was sold to William H. Neal (Friedlander et al. 1991:137). In 1840, it was sold to a partnership of John Bertram, Thomas Farless, and Michael Shepard, with Farless and Bertram, the two principal owners, controlling the eastern and western portions of the wharf respectively. During this period, three buildings were constructed on the wharf, including a coal shed, a two story wooden warehouse, and a one-story warehouse (Friedlander et al. 1991:138). Bertram sold his rights to the eastern half in 1859 to Augustus T. Brooks, who bought out Farless's portion in 1864. By 1873, three more buildings were built; an L-shaped woodshed built on piles on the east side, a one story coal shed adjacent to the 1792 warehouse, and another one story coal shed on the portion acquired by Brooks (Friedlander et al. 1991:138). In 1885, Brooks's heirs sold the wharf and rights to adjacent flats to George W. Lane, whose family owned the property until 1932. The wharf was enlarged again in 1896-1897, and steel tie-rods were installed across the wharf at twenty-four foot intervals. In the great Salem Fire of 1914, 7 of the previously mentioned wooden structures were destroyed and the nineteenth-century brick warehouse was damaged and rebuilt afterwards though thoroughly altered (Friedlander et al. 1991:138). At that point, the wharf was sold to Andrew J. Abdo who ran a lobstering business until the NPS acquired Central Wharf (Friedlander et al. 1991:137). In 1947, the Navy entered into cooperative agreement with the NPS to use Central Wharf for the operation of a Naval Reserve Training Center. The west bulkhead was extended 100 ft. on the west side using interlocking steel sheet pilings with tie rods every 20 ft. After 1972, Central Wharf was used as a marina for small pleasure boats; later, the U.S.S. *Seadog* was moored to the east side of the wharf (Wilson and Moran 1980:11-12; Garman et al. 1998; Donta et al. 1998).



Figure VI.3. View of Lane's (Central) Wharf from Derby Wharf just after the fire of 1914 (Peabody Essex Museum Collection, neg. 13935).

**Documentary Research and Archaeological Investigations.** A large amount of documentary and archaeological research is associated with Central Wharf. Documentary work includes that by Snell (1974) and Friedlander et al. (1991). Archaeological testing along Central Wharf was initially conducted in 1973 to investigate the condition of the wharf prior to a reconstruction project that took place in 1975. The construction work was also monitored by an archaeologist (Wilson and Moran 1980; Moran 1975). Terrestrial remote sensing, ground truthing, and archaeological monitoring of geo-technical borings was conducted on Central Wharf to identify potential intact archaeological deposits (Alterman et al. 1995). Archaeological investigations were also performed along those portions of Central Wharf that were impacted by the construction of a restroom building foundation and four utility lines. The goal of this work was to establish the presence or absence of early wharf remains

(Garman et al. 1998; Donta et al. 1998).

**Site Condition.** Both the excavations conducted by UMAS and earlier tests by Moran (Wilson and Moran 1980) indicate that pre-1900 deposits begin roughly 3 ft. below the surface. Most of the twentieth-century disturbance stopped at around 4 ft. except for the construction of the 1947 Naval Reserve building. Excavations in 1993 were constrained by the limitations of testing to a maximum 4 ft. depth, so only the top portions of early structures were encountered.

**Recommendations.** The recommendations from the three different archaeological investigations of Central Wharf are contradictory. Moran expressed that excavations demonstrated that large portions of the early wharves had deteriorated or had been replaced through cycles of maintenance and reconstruction (Wilson and Moran 1982). He also noted that modifications to and rebuilding of the wharf have certainly altered its historic fabric and have probably impacted the

integrity of archaeological resources associated with the wharf, although some intact sections of the historic wharf have been encapsulated by later wharf construction. Alterman et al. (1995) found similar results during remote sensing and archaeological monitoring and suggested that there is very little of the historic fabric of the wharf that is expected to have survived. Nevertheless, Central Wharf remains a significant archaeological site due to the potential it maintains to provide data on techniques of early wharf construction as well as deposits within the wharf that have the potential to provide data on the use of the wharf through time. Thus, any undertaking that has the potential to adversely affect subsurface deposits or the wharf structure should be preceded by archaeological investigation or monitored by an archaeologist.

#### **Hatch's Wharf Site**

ASMIS No. SAMA00006 (Fig. VI.6)

**Site Location, Description and Historic Context.** Hatch's Wharf, located between Derby and Central Wharves, extends only 160 ft. from the south side of Derby Street. Captain John White had purchased the beach land and flats of Lot D by 1768 from John Browne, and constructed a timber wharf and warehouse on the property (Snell 1977:19-20) (Figs. VI.11-14). When White died in 1793, Elias Hasket Derby purchased the lot, removed the warehouse and built a new cobb wharf that extended 148 feet into the South River (Friedlander et al. 1991:125). Elias' son, Ezekiel, inherited the lot in 1800 and owned it until he died in 1852. His brother, John, filled the dock between Lots C and D by 1818 (Friedlander et al. 1991:125). Until 1852, when Ezekiel's heirs sold the lot to two lumber merchants who had also purchased Lot C, the lot was leased to Lemuel B. Hatch who dealt in wood and coal, William Lummus a carpenter, Josiah Fritz a carpenter, and William Goodhue who dealt in lumber (Friedlander et al. 1991:129). They rebuilt the cobb wharf and constructed a seawall. Lemuel B. Hatch bought Lots C and D in 1853, and in 1881 bought the southern portion of Lot B (Friedlander

et al. 1991:125 & 129). Between 1881 and 1891, N.O. Very occupied Hatch's warehouse and used it to store coal, wood, and bark. Stephen Whipple succeeded Very and continued to use the lot for bulk storage until the lot was donated to the Relief of Aged and Destitute Women of Salem in 1934 at which time the lot was cleared (Friedlander 1991:130).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander (1991). Archaeological remote sensing and testing has also been conducted. A transect of four shovel test pits was excavated to investigate the integrity of the upper wharf deposits (Alterman et al. 1995).

**Site Condition.** The site surface is grass covered and the structure and fill appear to be stable. Archaeological deposits are believed to be intact since no significant sources of disturbance are known.

**Recommendations.** Archaeological testing is recommended for any undertaking that will involve ground disturbance. Such investigation should focus on the details of wharf construction and documentation of archaeological deposits.

#### **Tucker's Wharf Site**

ASMIS No. SAMA00020 (Fig. VI.10)

**Site Location, Description and Historic Context.** Tucker's Wharf, located approximately 150 ft. east of and parallel to Derby Wharf, extends approximately 400 ft. from Derby Street into Salem Harbor. Its type of construction is poorly documented, but appears to be of timber frame with earthen fill.

**Documentary Research and Archaeological Investigations.** No formal documentary or archaeological investigations have been conducted at this site, but some informal observations were made in 1997. On December 8th of that year, workmen repairing the Tucker's Wharf seawall uncovered wooden timbers at an approximate depth of 8.5 feet below street level while digging a trench for new sheet pilings. The backhoe operator assumed the timbers to be in fill



until it became apparent that they were in place. Rather than call upon site personnel to investigate, the site supervisor of the project took a few photographs before having the backhoe operator demolish the feature. After investigating and evaluating the site, SAMA curator, David Kayser and historian, John Frayler, concluded that the feature was a launching way for small to medium-sized ships. Uncovered were two pilings, a row of four squared timbers under which was a row of logs laid perpendicular to the squared timbers and a 12-inch squared timber parallel to the other squared timbers. All of the horizontal wood members appeared to continue running north. On December 18, 1997, despite repeated entreaties to the contractor to report all archaeological features, a large squared timber located directly under the wall was removed. NPS archaeologist Dr. Steven Pendery visited the site shortly thereafter to measure, record, and photograph the 25-foot long timber. On December 20, 1997, an octagonal-shaped timber used as a piling near the seawall was recovered while the contractor was driving sheet pilings to form a new seawall. The timber, which appeared to be a recycled ship mast, broke into two sections while being moved.

**Site Condition.** Although some of the structural timbers of Tucker's Wharf may have been disturbed or removed by seawall construction, it is expected that substantial portions of the wharf's structure and fill remain intact. Similarly, surface deposits may have been impacted by the construction and demolition of several structures 21, 22, 23, 20 (Friedlander et al. 1991) in the latter nineteenth and twentieth centuries, but much of the wharf maintains its potential to provide data important to the history of wharf construction and wharf related activities.

**Recommendations.** Due to the site's potential, archaeological testing and/or monitoring is recommended for any undertaking that is likely to disturb the wharf structure or surficial and interior deposits in order to adequately document such resources.

### Forrester's Warehouse 77 Site ASMIS No. SAMA00023 (Fig. VI.6)

**Site Location, Description and Historic Context.** Simon Forrester constructed a brick warehouse on Derby Street at the head of Central Wharf in 1791-1793. This site is located immediately west of the Forrester's Warehouse 9 Site and represents the fourth warehouse built on the wharf. This structure was standing as late as 1911 and was definitely demolished by 1914. A shed (structure 47) was constructed on this site ca.1931. This site is referenced as structure 77 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). Archaeological investigations (Garman et al. 1998) conducted by UMAS during Task Order 8 revealed a stone foundation for this structure.

**Site Condition.** Archaeological investigations suggest the structure foundation is relatively intact.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to further document the structure foundation known to be present as well as to document the nature of wharf fill and its structure.

### West India Goods Store Site ASMIS No. SAMA00008 (Fig. VI.5)

**Site Location, Description and Historic Context.** This site is located on the corner of Derby Street and what would later become Palfrey Court. The structure was moved in the beginning of the twentieth-century (1911) from its original location on Derby Street to the yard area directly in front of the Derby House. The structure was then moved back to its original location on the corner of Derby Street and Palfrey Court when it was obtained by the NPS. This site is referenced as structure 2 by Friedlander et al. (1991).

Captain Henry Prince built this store between 1800 and 1805 after purchasing the lot

owned by Elias Hasket Derby in 1796. He constructed this frame store to house the goods his merchant ships were importing to Salem. The title to the store was transferred to Osgood and Ropes in 1827 when they bought the property, and Ropes had full control of it when he bought out Osgoods' interests in the lot in 1843. In the *Salem Directories* from 1837 and 1851, the store was listed as a West India goods store (Friedlander et al. 1991:91). In 1853 it was described as a combination West India goods store/paint store, and in 1857 it was listed as the shop of a cigar maker (Friedlander et al. 1991:91). According to data compiled by Friedlander (1991:93), this was a commercial property leased to a tenant who most likely operated it as an exotic and regular goods store. From 1853 to 1901 the store went under a series of commercial transformations; paint store, cigar store, and liquor store (where the moniker "Rum Shop" probably derived, the colloquial name for the store before today's 'West India Goods Store.' The structure was vacant in 1911, when it was moved by Joseph Kohn. At its new location the building housed a clothing business and beauty salon until 1927 when SPNEA obtained ownership of the structure. SPNEA considered renovating the building as a weaving school, but no new use for the store materialized before it was given to the Federal Government in 1937 (Friedlander 1991:93).

Before the West India Goods Store was moved back to its original location at the corner of Palfrey Court and Derby Street, two stores consisting of a pool hall, grocery, and lunch counter were constructed at the original site in 1912. Friedlander et al. (1991:208) discuss the possibility of a ca. 1906 store located immediately west of the West India Goods Store, but the location of this structure may simply be a survey error on the 1906 Sanborn map. Future documentary and archaeological research may eventually resolve this issue.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell

(1974), Friedlander et al. (1991) and Williss (1982). Archaeological investigations have not been conducted at this site.

**Site Condition.** Shortly after the NPS made the initial acquisitions for the establishment of SAMA, the West India Goods Store was moved to its original location from a site at the southwest corner of the Derby House lot. The Derby House yard is currently covered with grass and brick walkways.

**Recommendations.** Archaeological monitoring is recommended for any undertaking at this location that involves ground disturbance in order to identify archaeological features or deposits. Because no archaeological testing has been conducted at this site, it is not clear if such deposits associated with the original location of the site are intact or if they have been disturbed.

#### **Benjamin Pickman Jr.'s Store** ASMIS No. SAMA00024 (Fig. VI.8)

**Site Location, Description and Historic Context.** Elias Derby bequeathed this lot to his daughter Antiss, who was married to Benjamin Pickman, Jr. In 1800, Benjamin constructed a three-story hipped roof warehouse, which originally sat on piles along the east side of Derby Wharf. (Friedlander, 1991: 117). The warehouse, measuring 60' x 25' 2", was divided into three establishments or "stores" on the lower level, one of which was a counting room. The upper floors were used to store goods. This structure was moved onto a granite foundation on Derby Wharf around 1830, with its eastern wall even with the east side of the wharf (Friedlander 1991:117). Pickman's heirs owned this store until 1872, when it was then sold to Pettingell of the Derby Wharf Corporation. The store then became Pettingell's fish cannery, with T.F. Little's oil company and barrel manufactory on site as well (Friedlander, 1991: 118). Above was Anton Liebsch's workrooms used to manufacture sails, rigging, tents, and awnings. In 1911, the warehouse was bought by the Boston and Northern Street Railway Company and used to store, repair, and dismantle rail cars (Friedlander



1991:118). This site is referenced as Structure 88 by Friedlander et al. (1991), see also Snell (1974a:82-83).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site (Snell 1974; Friedlander et al. 1991), but no known archaeological investigations have been undertaken.

**Site Condition.** This site is currently covered with crushed stone pathways and grass. Conditions of the archaeological deposits are unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf disturbed intact archaeological deposits.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits associated with the Pickman Store.

#### **John Derby's "New" Store**

ASMIS No. SAMA00025 (Fig. VI.8)

**Site Location, Description and Historic Context.** This structure, which originally stood on piles on the east side of the wharf, approximately 420 ft south of Derby Street, was built by James Gould for Elias Hasket Derby in July of 1794, and measured 60' x 25' 2" (Snell 1974a:84-86; Friedlander, 1991: 118). It was bequeathed to John Derby in 1799, and was moved off its piles to sit flush with the east side of the wharf in 1830. The first floor was divided into stores number 8 and 9, and the counting room was on the upstairs floor (Friedlander 1991:118). John Derby carried a variety of goods in this store such as saffron, twine, beef, and brandy (Friedlander, 1991: 119). This structure was used as a warehouse throughout the nineteenth century and was most likely razed around 1905 after thirty years of neglect (Garman et al. 1998:13). This site is referenced as Structure 89 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research has been conducted for this site (see Snell 1974; Friedlander et al. 1991).

Archaeological excavations during Task Order 2 by UMAS revealed a cobble surface associated with John Derby's "New" Store (Garman et al. 1998). The cobble surface was packed with clay that may have provided a waterproof barrier. Although the full warehouse was not excavated, the cobbles may have extended across the entire sub-floor of the structure. The southern edge of the cobble/clay surface lay 38 ft north of the northern edge of Warehouse 3's foundation (John Prince's Store).

**Site Condition.** This site is currently covered with crushed stone pathways and grass. The 1938 WPA restoration truncated the cobble surface on its east side, while a relatively recent water pipe trench appears to have disturbed the cobble surface's western edge.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to further document archaeological deposits associated with Derby's New Store or deeper deposits associated with wharf construction.

#### **John Prince's Store**

ASMIS No. SAMA00026 (Fig. VI.8)

**Site Location, Description and Historic Context.** Elias Derby's son-in-law, John Prince, built a three-story frame warehouse on the east flats of Derby Wharf in 1800, on land inherited by his wife Martha (Friedlander 1991:119). This building, which originally stood on piles approximately 520 ft south of Derby Street, measured 59' 9' x 25' 2", with a lower floor divided into stores 10, 11 and 12 (Friedlander 1991:119). In 1821, Prince sold the lot and warehouse to Gideon Tucker, and in 1830, the warehouse was moved off the piles and onto a granite foundation (Friedlander et al. 1991:119). The warehouse was still standing in 1907 (Snell, 1977: 74a:86-88). This site is referenced as Structure 90 by Friedlander et al. (1991)

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander (1991). Archaeological

excavations conducted by UMAS under Task Orders 1 and 2 investigated and assessed the integrity of the store foundations (Garman et al. 1998). Fieldwork associated with Task Order 2 yielded significant information on the construction sequences of John Prince's Store. Four units were excavated to provide information about the structure's relative age, the presence or absence of features associated with the warehouse, and other information illuminating the building's construction and demolition sequence (Garman et al. 1998).

**Site Condition.** This site is currently covered with crushed stone pathways and grass. The warehouse foundation was significantly disturbed during the Task Order 4 excavations associated with the deep coffer dam investigations. The entire southern portion of the foundation deposits were disturbed by wharf reconstruction activities following the Task Order 4 excavations. It is possible that the northern portions of the cobblestone floor and other deposits may remain intact.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location that involves ground disturbance in the northern area of the foundation to document remaining portions of this feature and underlying fill sequences associated with wharf construction.

#### Nathaniel West's Store Site

ASMIS No. SAMA00027 (Fig. VI.8)

**Site Location, Description and Historic Context.** Nathaniel West was another son-in-law of Elias Derby, who built a three-story wood frame, shingled hip roof building on land inherited by his wife, Elizabeth Derby. This warehouse, which originally stood on piles and was approximately 183 m (600 ft) south of Derby Street, measured 59' 9" x 25' 2" and had two stores, numbers 13 and 14, on the lower floor. Around 1830, it was moved onto a granite foundation on the eastern edge of the wharf (Snell 1974a:88-89) (Friedlander 1991:120). Nathaniel West owned the property until he died in 1851 and the warehouse was still standing in 1905 (Snell 1977:74).

This site is referenced as structure 91 on the Friedlander et al. (1991) base maps.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No known archaeological investigations have been conducted at this site.

**Site Condition.** This site is currently covered with crushed stone pathways and grass. Condition of the archaeological deposits are unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf disturbed archaeological deposits in this area.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits associated with the store or wharf construction.

#### Derby Wharf Warehouse Sites

ASMIS No. SAMA00028 (Figs. VI.7, VI.8)

**Site Location, Description and Historic Context.** A large number of additional nineteenth-century warehouses and sheds are associated with Derby Wharf that cannot be attributed to a specific owner or function. Seven of these were constructed on piles along the wharf's east side and then moved onto the wharf ca. 1830. These consist of structure numbers 92, 102, 138, 139, 140, 147 and 148. Structures 120 and 149 were constructed on the wharf's west side ca. 1811. Warehouse 121 was constructed on the southeastern tip of the wharf ca. 1812. Another episode of building primarily of smaller structures occurred in the 1870s comprising Nos. 119, 118, 103, 116, 115 and 117. In the latter nineteenth century Nos. 71, 72 and 73 were constructed on the wharf's northwestern portion. Many of these structures are believed to have had granite foundations (Snell 1974a; Friedlander et al. 1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for these sites by Snell (1974); and Friedlander (1991). No archaeological investigations have focused on these sites.

**Site Condition.** These sites are currently



Figure VI.4. Lithograph of the Custom House and Derby Wharf, ca. 1850 (Peabody Essex Museum Collection, neg. 14524).

covered with crushed stone pathways and grass. Conditions of the archaeological deposits are unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf and erosion caused by weather and storm surges has disturbed some of the archaeological remains associated with these structures.

**Recommendations.** Archaeological testing is recommended for any undertaking in the area of these historically known structures to document details of their construction and associated deposits as well as document details of wharf construction.

#### **Custom House Site**

ASMIS No. SAMA00013 (Fig. VI.5)

#### **Site Location, Description and Historic**

**Context.** The existing U.S. Custom House is located at the corner of Derby and Orange Streets, across from Derby Wharf and west of the

Hawkes House. It was built in 1818-1819 to house federal administrative offices. This structure was constructed over the site of the ca.1773 Crowninshield mansion that had replaced an earlier, ca. 1661 house (Friedlander et al. 1991). This structure is referenced as No. 6 by Friedlander et al. (1991). Adjoining the entire north facade of the building is the Public Stores or Government Bonded Warehouse (assigned structure No. 8 by Friedlander et al. (1991)) (see below). Although the two structures are joined and were constructed at the same time, there is no means of egress between the two and each is considered a unique property by the NPS.

The Custom House served two functions: the collection of port revenue served by the offices in the front (southern) portion of the building and the storage of goods in the rear warehouse. Weighing equipment was initially stored in the former Crowninshield coach house, but when this burned in 1829, the Scale House

(which exists today) was constructed on the northwest portion of the property (Friedlander 1991:139). The Custom House was renovated first in 1853 under the supervision of Ammi B. Young (Fig. VI.4). The interior and exterior of the building were repaired, and the words "Custom House" were incised on the balustrade on the southern façade facing Derby Street (Friedlander 1991:139). All interior rooms were altered and refurbished, including the floors, windows, and plaster. In addition, central heat was installed to reach every room, and the building was connected to the urban water and sewer system (Friedlander 1991:139). The second renovation of the Custom House in 1873 succeeded in repairing the roof and front granite steps and in regilding the eagle and sign. A new fence was installed in the rear of the building, and new front doors were added (Friedlander 1991:140). Further repairs and additions were undertaken in 1886, 1904 and 1922.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander (1991). The only archaeological investigations in the area were conducted in the rear yard north of the Public Stores (see below).

**Site Condition.** This lot is landscaped with lawn and brick walks. Construction of the Custom House clearly disturbed archaeological resources from earlier occupation. The lot, nevertheless, retains medium potential for intact deposits associated with the Crowninshield occupation as well as with that of the 1764 House adjacent to Custom House Court and the 1661 House on Orange Street.

**Recommendations.** This lot is characterized by a number of separate occupations, many of which are accompanied by episodes of demolition and construction. Any ground disturbing undertaking should be preceded by archaeological testing to identify potentially intact archaeological deposits.

### **Public Stores (Government Bonded Warehouse) Site**

ASMIS No. SAMA00071 (Fig. VI.5)

**Site Location, Description and Historic Context.** The existing Public Stores site is attached to the north side of the Custom House and is located at the corner of Derby Street and Orange Street across from Derby Wharf. It was built in 1818-1819 at the same time as the Custom House on the site of the ca.1773 Crowninshield mansion that had replaced an earlier, ca. 1661 house (Friedlander 1991). This structure is designated No. 8 by Friedlander et al. (1991). Additional structures that were present in the rear (north) yard include a ca. 1805 frame house adjacent to Custom House Court (Structure 152), two privy structures along the north lot line (Nos. 141, 151), and a series of structures in the northwest corner of the lot (Nos. 142 and 7). One of the latter is the existing Scale House (see below).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander (1991). Archaeological remote sensing was conducted in the rear yard and three shovel test pits were excavated to test radar anomalies (Alterman et al. 1995). All three tests revealed fill sequences and no indications of features.

**Site Condition.** This lot is landscaped with lawn and brick walks. Construction of the Public Stores clearly disturbed archaeological resources from earlier occupation. The lot, nevertheless, retains medium potential for intact deposits associated with the Crowninshield occupation as well as with that of the 1764 House and 1661 House.

**Recommendations.** This lot is characterized by a number of separate occupations, many of which are accompanied by episodes of demolition and construction. Any ground disturbing undertaking should be preceded by archaeological testing to identify potentially intact archaeological deposits.



### **Forrester's Warehouse 9 Site**

ASMIS No. SAMA00022 (Fig. VI.6)

**Site Location, Description, and Historic Context.** The Forrester Warehouse was constructed ca. 1825 and located at the head (north end) of Central Wharf and is immediately east of the Forrester's Warehouse 77 Site (1791-1792). This site is referenced as Structure 9 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This site is currently identified by the NPS to be represented by exposed granite foundation stones located at the head of Central Wharf on Derby Street. The site is currently covered in grass and is surrounded by crushed stone and paved brick walkways.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking at this location to document archaeological deposits associated with this structure as well as underlying deposits that may provide data on wharf construction.

### **Central Wharf Storehouse Sites**

ASMIS No. SAMA00029 (Fig. VI.6)

**Site Location, Description and Historic Context.** A number of storehouses were located on the northeastern portion of Central Wharf. Three rectangular structures (Nos. 82, 83 and 87) were built in a row with spaces between. These appear to have been demolished ca. 1851. Perhaps constructed between the foundations of No. 83 and 87 were two small structures (Nos. 85 and 86) ca. 1874 and a third small structure (No. 84) ca. 1906 (Friedlander et al. 1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for these sites by Snell (1974) and Friedlander (1991). No known archaeological investigations have been conducted.

**Site Condition.** These sites are currently covered with a crushed stone pathway and grass. Conditions of the archaeological deposits are unknown at this time. It is likely that construction of the 1947 Naval Reserve building and erosion caused by weather and storm surges has resulted in some disturbance to archaeological deposits.

**Recommendations.** Archaeological testing is recommended for any undertaking on this portion of Central Wharf to document the potential presence of foundations and associated archaeological deposits.

### **Derby Wharf Storehouse Sites**

ASMIS No. SAMA00030 (Fig. VI.7)

**Site Location, Description and Historic Context.** The term storehouse is used for three structures that were located on the east side of Derby Wharf toward its southern end. Friedlander et al.'s. No. 106 was constructed ca. 1829, No. 105 in 1851, No. 104 in 1885 and No. 107 in 1893. Similar to the large group of warehouses listed above, these structures are not associated with any specific owner or function.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for these sites by Snell (1974) and Friedlander (1991). No known archaeological investigations have been conducted.

**Site Condition.** These sites are currently covered with crushed stone pathways and grass. Conditions of the archaeological deposits are unknown at this time, but it is likely that they were disturbed by the 1938 WPA reconstruction of Derby Wharf and by erosion caused by weather and storm surges.

**Recommendations.** Archaeological testing is recommended for any undertaking in this area to document the potential presence of foundations and associated archaeological deposits as well as deeper deposits that would contribute to an understanding of wharf construction.

**Cooperage 131 and Shed 114 Sites**  
ASMIS No. SAMA00031 (Fig. VI.8)

**Site Location, Description and Historic Context.** A cooperage was constructed on piles at the northeastern end of Derby Wharf ca. 1837. This was joined in 1851 by a large shed to the north and also built on pilings. The cooper shop was possibly associated with S.O. Dalrymple.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted on this site by Snell (1974) and Friedlander (1991). No known archaeological investigations have been conducted.

**Site Condition.** The structures as constructed were on pilings and it is not known if they were moved onto the wharf. Archaeological deposits associated with these, therefore, may be present under water or within the wharf sediments. This portion of the wharf is currently covered with crushed stone pathways and grass. Condition of potential archaeological resources is unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf and erosion caused by weather and storm surges has impacted deposits in this area.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking in this area to document the potential presence of cooper shop associated remains.

**Scale House Site**  
ASMIS No. SAMA00009 (Fig. VI.5)

**Site Location, Description and Historic Context.** The Scale House, referenced as structure 7 by Friedlander et al. (1991), is presently located at the northwest corner of the Public Stores lot on Orange Street. It was constructed in 1829 on the site of the Crowninshield stable (structure 142) that was destroyed by fire.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1978) and Friedlander (1991). No archaeological investigations have been conducted in associ-

ation with this site.

**Site Condition.** The yard area adjacent to the existing building is landscaped with grass and pathways.

**Recommendations.** Archaeological investigations are recommended for any subsurface undertakings in this area to document deposits that may be associated with use of the Scale House and to identify remains of the former stable if present.

**Derby Street Store 28 Site**  
ASMIS No. SAMA00032 (Fig. VI.5)

**Site Location, Description and Historic Context.** This Store was constructed in 1836 and was located on the corner of Derby Street and Custom House Court, directly in front of the Hawkes House. This site is referenced as structure 28 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished during the 1938 NPS reinterpretation of the Park, but archaeological deposits associated with it may be intact. Construction of this structure may have disturbed archaeological deposits associated with the earlier 1688 House and original Hawkes House occupation.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking at this location to document archaeological deposits associated with use of the Store or earlier occupation phases that may be present.

**Derby Street Store 127 Site**  
ASMIS No. SAMA00033 (Fig. VI.9)

**Site Location, Description and Historic Context.** This Store and associated buildings were constructed ca.1837 and was located at the head of Derby Wharf on Derby Street. This site was associated with the name I.P. Foster and includes structures 40, 41, 41a, 62, 63, and 127



(Friedlander et al. 1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted on this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted in this area.

**Site Condition.** This structure was destroyed during the 1938 NPS reinterpretation of the Park. The site is currently covered with grass and portions are paved with red brick walkways.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking at this location to document archaeological deposits associated with this group of structures as well as details of wharf construction.

#### **Stable 125 and 126 Sites**

ASMIS No. SAMA00034 (Fig. VI.9)

**Site Location, Description and Historic Context.** These sites are located on the north-eastern portion of Derby Wharf adjacent to Derby Street and were constructed ca.1837. The owner/occupant at the time is denoted as 'Brooks.' Both appear to have been replaced ca. 1890 by two wagon sheds associated with the name I.P. Foster, designated as sites 100 and 101. The original stables are referenced as structures 125 and 126 by Friedlander et al. (1991). By ca.1906 the sheds served a number of functions including a pool hall, bakery, flower company, and residences designated as sites 38a and 38b.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991), but no archaeological investigations have been conducted.

**Site Condition.** The condition of these sites is unknown. The site area is presently covered by the Derby Wharf lawn.

**Recommendations.** These structures are not likely to be visible in the archaeological record due to their impermanent nature, but archaeological deposits resulting from associated activities may be present in the area if these were

not removed by demolition activities. It is recommended that subsurface undertakings be preceded by archaeological testing or be monitored by an archaeologist to determine if potentially significant resources are present.

#### **Tenement 122 Site**

ASMIS No. SAMA35 (Fig. VI.5)

**Site Location, Description and Historic Context.** This Tenement was constructed ca. 1838 and was located in the rear yard area and directly north of the Hawkes House and immediately east of Custom House Court. This site is referenced as structure 122 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted on this site by Snell (1974) and Friedlander et al. (1991), but no archaeological investigations have been conducted.

**Site Condition.** This structure was destroyed during the 1938 NPS reinterpretation of the Park. Archaeological deposits are assumed to be intact, although the construction of this structure may have disturbed archaeological deposits associated with the original Hawkes House and earlier occupations.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with this structure, the Hawkes House or earlier structures/occupations on this lot.

#### **Tenement 123 and 33 Site**

ASMIS No. SAMA00036 (Fig. VI.5)

**Site Location, Description and Historic Context.** This Tenement was constructed ca. 1838 and was located in the rear yard area and directly north of the Tenement 122 Site and the Hawkes House, and immediately east of Custom House Court. This structure was demolished ca.1874 when a duplex dwelling was constructed

in its place. This site is referenced as structure 123 and the later duplex dwelling is referenced as structure 33 and 33a by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished ca.1874 and replaced by another, suggesting archaeological deposits are not intact. Deposits from previous occupations and from occupation of the duplex, however, may be present. This area is presently landscaped in lawn and walkways.

**Recommendations.** Archaeological testing is recommended at this site to document the potential presence of remains of the 1838 and 1874 or earlier structures and associated archaeological deposits.

#### **Tenement 32 Site**

ASMIS No. SAMA00037 (Fig. VI.5)

**Site Location, Description and Historic Context.** This Tenement was constructed ca.1851 and was located in the rear yard area between the Derby and Hawkes Houses. This site is referenced as structure 32 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research for this site was conducted by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished during the 1938 NPS reinterpretation of the Park. Archaeological deposits are assumed to be intact, although the construction of this structure likely disturbed archaeological deposits associated with the original Derby and Hawkes Houses and earlier properties.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits that are potentially associated with the tenement or earlier occupation of the lot.

#### **Tenement 51 Site**

ASMIS No. SAMA00038 (Fig. VI.5)

**Site Location, Description and Historic Context.** This Tenement was constructed ca.1851 and was located east of the Derby House on Palfrey Court. This site is referenced as Structure 51 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished during the 1938 NPS reinterpretation of the Park. Archaeological deposits are assumed to be intact, although the construction of this structure may have disturbed archaeological deposits associated with the original Derby House occupation, West India Goods Store and earlier properties.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with the tenement or occupation of the Derby House lot.

#### **Structure 128, 129, and 130 Sites**

ASMIS No. SAMA00039 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is associated with a group of three structures constructed ca. 1851 and located at the far northeastern portion of Derby Wharf and south of Structure 127. The three are associated with the name J. Brooks. There is no record of these structures in 1852, as they were replaced by other structures. These sites are referenced as structures 128, 129, and 130 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** These structures appear to have been extremely short-lived, being

replaced by other structures ca. 1852. The sites are presently grass and gravel covered.

**Recommendations.** No archaeological testing is recommended specifically for this site due to the brief period of existence of the structures and probable impermanent construction. Deep undertakings at this location, however, should be monitored by an archaeologist to document early remains associated with wharf construction.

#### **Hatch and Ames 133 Site**

ASMIS No. SAMA00040 (Fig. VI.6)

**Site Location, Description and Historic Context.** The Hatch and Ames site is located at the head of Hatch's Wharf adjacent to Derby Street. It was constructed ca. 1846 and was known as L.B. Hatch Wood Wharf. This structure is gone by 1852 and was replaced by other structures when Hatch's Wharf was rebuilt in 1853. This site is referenced as structure 133 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** These structures were replaced as early as 1852 by other structures. The area is presently covered by brick walk and grass.

**Recommendations.** Archaeological testing at this location is recommended to determine if archaeological deposits associated with this occupation are present. In addition, deep undertakings in this area should be monitored by an archaeologist since data important to the characterization of the original shore may be present.

#### **Shed 78 and 79 Sites**

ASMIS No. SAMA00041 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site is located at the head of Central Wharf and to the south of the Forrester (1791-1792) Warehouse 77 Site. These sheds

were constructed ca. 1867-1872 and are associated with A.T. Brooks. They burned in the 1914 Salem fire. These sites are referenced as structures 78 and 79 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigation.** Documentary research was conducted at this site by Snell (1974) and Friedlander (1991). No known archaeological investigations have been conducted.

**Site Condition.** This site is currently covered with crushed stone pathways and grass. Condition of the archaeological deposits are unknown at this time.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking at this location to document archaeological deposits that may be associated with the storage activities within these structures or with wharf construction revealed by deep investigations.

#### **Tenement 21 Site**

ASMIS No. SAMA00042 (Fig. VI. 10)

**Site Location, Description and Historic Context.** This Tenement was constructed in 1869 and was located west of Kosciusko Street (formerly Grant Street) at the southwestern end of Tucker's Wharf. This site is referenced as structure 21 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished for the 1979 construction of a private residence.

**Recommendations.** Archaeological testing is recommended for this site primarily to document archaeological deposits associated with wharf tenement occupation and also to collect data on the construction of Tucker's Wharf that might be revealed by deep undertakings.

### Dwelling 56 Site

ASMIS No. SAMA00043 (Fig. VI.10)

**Site Location, Description and Historic Context.** This Dwelling was constructed in 1869 and was located directly west of Kosciusko Street (formerly Grant Street) and south of the Tenement 21 site on Tucker's Wharf. This structure was completely replaced by the Polish Socialist Alliance of the U.S.A. Club ca.1931 (structure 23) and by the accompanying shed (structure 22). This site is referenced as structure 56 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** Structures 22 and 23 were demolished in 1979 when a residence was constructed over the Tenement 21 site.

**Recommendations.** Archaeological investigations are recommended at this site to document structural remains and archaeological deposits associated with the occupation of Dwelling 56. In addition, deep undertakings should be monitored by an archaeologist to document the details of wharf construction.

### Derby Wharf Lighthouse Site

ASMIS No. SAMA00010 (Fig. VI.7)

**Site Location, Description and Historic Context.** The existing Derby Wharf Lighthouse is located at the south terminus of Derby Wharf and was constructed for the U.S. Light House Service in 1871 and was used until its decommission in 1976. It was transferred to the Park Service in 1979. Significant deterioration of the structure encouraged a volunteer group, The Friends of Salem Maritime to restore the lighthouse in 1983. Under the leadership of Stanley J. Usovicz (the present mayor of Salem), the volunteers worked with donated materials from local businesses and succeeded in relighting the beacon in October 1983 (Chase-Harrell et al. 1993:170). This site is referenced as structure 11 by

Friedlander et al. (1991).

**Documentary Research and Archaeological Investigation.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The existing lighthouse is in good condition having been recently renovated. It is currently surrounded by grass cover and crushed stone pathways.

**Recommendations.** Archaeological testing is not recommended specifically for the existing structure since it was never occupied and thus does not maintain potential to inform about past behaviors or wharf-related activities, but any undertaking at this location should be monitored to document details of wharf construction.

### Cooper 103 Site

ASMIS No. SAMA00044 (Fig. VI.7)

**Site Location, Description and Historic Context.** This site is located on the east side of Derby Wharf and was built partially on pilings ca.1874. It is possibly associated with a cooper, and is referenced as structure 103 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is possible that this site was disturbed during the 1938 WPA reconstruction of Derby Wharf, but this has not been confirmed. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with coopering or other activities.

### Wharfinger's Office Site

ASMIS No. SAMA00045 (Fig. VI.8)

**Site Location, Description and Historic Context.** This site is located on the east side of Derby Wharf and may have been moved to this location after warehouse structure 137 was demolished between 1851 and 1874. This site is referenced as structure 117 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is possible that this site was disturbed during the 1938 WPA reconstruction of Derby Wharf, but this has not been confirmed. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits that may be associated with wharfing activities or deeper deposits associated with wharf construction.

### Dwelling 34 Site

ASMIS No. SAMA00046 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located on Derby Street across from the original location of the West India Goods Store. It was constructed ca.1874 and was demolished prior to 1938. This site is referenced as structure 34 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is currently covered in grass and crushed stone pathways.

**Recommendations.** Archaeological test-

ing is recommended for any undertaking at this location to document archaeological deposits that may be associated with occupation of this site. In addition deep undertakings should be monitored by an archaeologist due to the presence of deposits associated with the early shore.

### Shed Complex Site

ASMIS No. SAMA00047 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located near the head and on the eastern side of Derby Wharf. This complex of ten sheds was constructed ca.1874-1897 and associated with I.P. Foster and N.O. Very. This shed complex was replaced ca. 1931 by structures 39 and 42 consisting of a dwelling, bake shop and garage. This site is referenced as structures 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 98, and 99 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this group of sites by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This complex of sheds was disturbed as early as ca. 1931 with the construction of structures 39 and 42. The site is currently covered with grass and crushed stone paths as part of the Derby Wharf lawn.

**Recommendations.** Although these structures are potentially significant, their impermanent construction and demolition makes their archaeological identification doubtful. Archaeological investigations are therefore not recommended in association with this group of structures, but deep undertakings here should be monitored by an archaeologist to document archaeological deposits associated with the early shoreline.

### Dwelling 52 Site

ASMIS No. SAMA00048 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located between Derby and

Tucker's Wharf and south of the Dwelling 34 site. It was constructed ca.1874 and was demolished prior to 1914. This site is also associated with shed structures 97 and 53 that were constructed ca. 1890. The Dwelling 34 site was impacted by ca. 1931 construction of a Sausage Factory (structure 35). The site was also covered with an asphalt parking lot that was removed in 1978. This site is referenced as structure 52 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research has been conducted on this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be disturbed due to the construction impacts by the Sausage Factory. It is currently covered in grass and crushed stone pathways.

**Recommendations.** No archaeological testing is recommended for this site due to its likely destruction by the ca. 1931 Sausage Factory.

#### Office 43 Site

ASMIS No. SAMA00049 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site is located on Derby Street between Central and Hatch's Wharf and was constructed ca.1874 and existed until 1938. This structure replaced another of unknown function that was built ca. 1851. This site is associated with the names G. and F. Sanborn and is referenced as structures 43, 76, and 134 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is currently landscaped in grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this

location to document archaeological deposits that may be associated with this structure and its use.

#### Office and Shed 74 Site

ASMIS No. SAMA00050 (Fig. VI.6)

**Site Location, Description and Historic Context.** This office and shed site is located on Derby Street between Hatch's Wharf and Derby Wharf and was constructed ca.1874. These structures were removed during the 1938 WPA Park reinterpretation.

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits that may be associated particularly with the office. Evidence of use of the shed may be more difficult to identify due to its probable impermanent construction.

#### Blacksmith's Shop and Shed 71 and 72 Site

ASMIS No. SAMA00051 (Fig. VI.8)

**Site Location, Description and Historic Context.** This site is located on the west side of Derby Wharf across from the Lynn and Boston Railway Company Car House. The blacksmith's shop was constructed in 1887 and the associated shed was constructed ca.1890. This site is associated with Edward C. Wiggin and is designated structures 71 and 72 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presumed to be intact. It is possible that this site was disturbed during the 1938 WPA recon-



struction of Derby Wharf, but this has not been confirmed. It is currently covered in grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the location of archaeological deposits that are threatened by potential disturbance.

#### **Tenement 37 Site**

ASMIS No. SAMA00052 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located adjacent to Derby Street and across from the Derby House and was constructed ca.1890. The structure was associated with the name Jas. Flynn and replaced three sheds or dwellings built ca.1874. The three earlier structures are referenced as 109, 110, and 111 and the ca.1890 tenement site is referenced as 37 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The location of this site was covered in 1978 by an asphalt parking lot and is now covered with grass and red brick walkways. The condition of the site is presumed to be intact, but deposits associated with the earlier structures 109, 110, and 111 were likely disturbed by tenement construction.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits associated with occupation of this tenement.

#### **Dwelling 54 Site**

ASMIS No. SAMA00053 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located south of the Dwelling 52 site and adjacent to Tucker's Wharf. It was constructed ca. 1890 and an associated shed addition was constructed ca.1897. This structure was demolished by 1914. The site is

associated with J.F. Geary and designated as sites 54 and 55 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigation.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown. It is currently covered in grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with occupation of this structure. This site may also contain remains associated with the 1931 Sausage Factory.

#### **Shed 70 Site**

ASMIS No. SAMA00054 (Fig. VI.8)

**Site Location, Description and Historic Context.** This site is located on the north east side of Derby Wharf and directly south of the Lynn and Boston Railway Company Car House. It was constructed ca. 1890 and was known as Magilson's Junkyard until 1911 when the site was cleared. The junkyard itself may have been located in the empty lot east of warehouse No. 88. This location is referenced as site 70 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown. It is possible that this site was disturbed during the 1938 WPA reconstruction of Derby Wharf. It is currently covered by grass and crushed stone pathways.

**Recommendations.** Although archaeological evidence of the shed structure may not have survived due to its impermanent construction, deposits associated with a junkyard in this area may be present. It is therefore recommended that archaeological testing be conducted in asso-

ciation with any subsurface undertaking at this location to document the potential presence of associated deposits.

#### **Tenement 31 Site**

ASMIS No. SAMA00007 (Fig. VI.5)

**Site Location, Description and Historic Context.** This site is located north of and between the Derby and Hawkes Houses and was constructed ca. 1897 on top of the remains of structure 108 (a shed constructed in 1874). It is associated with the name, M. McNulty and existed until at least 1938. This site is referenced as structure 31 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown, but was likely severely disturbed by its demolition by the NPS. It is currently covered by grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with this structure and its occupants.

#### **Lynn and Boston Railway Company Car House Site**

ASMIS No. SAMA00055 (Fig. VI.8)

**Site Location, Description and Historic Context.** This site is located at the northeastern end of Derby Wharf and consisted of a large shed-like structure constructed ca. 1897 for the dismantling of railway cars and storage of parts. The Lynn and Boston rail line passed immediately to the west. This structure was constructed on top of the remains of structures 114, 115, and 116 consisting of a coopeage and associated sheds. The Car House structure is referenced as No. 69 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits associated with its railroad-related function. Undertakings here involving deep excavation should be monitored by an archaeologist to document deposits associated with the eastern enlargement of the head of Derby Wharf.

#### **Railway Powerhouse Site**

ASMIS No. SAMA00056 (Fig. VI.7)

**Site Location, Description and Historic Context.** This site is located at the south end of Derby Wharf and served as the terminus for the Lynn and Boston Rail line that passed along the center of Derby Wharf. The Powerhouse was constructed ca.1904 and was destroyed before 1914. This structure replaced warehouse structures 106 and 107, and is referenced as structure 93 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown, but it may have been disturbed during the 1938 WPA reconstruction of Derby Wharf. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits that may be associated with the railway industry on Derby Wharf.

### Scales 76 Site

ASMIS No. SAMA00057 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site is located on Derby Street at the head of Hatch's Wharf between sites 43 and 44. The scales structure was built ca. 1906 and is referenced as No. 76 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No known archaeological investigations have been undertaken.

**Site Condition.** The site is currently covered with paved red brick pathways and grass. It is not known if the archaeological deposits are intact or if they have been disturbed.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document archaeological deposits potentially associated with weighing activities.

### St. Joseph Hall Site

ASMIS No. SAMA00012 (Fig. VI.5)

**Site Location, Description and Historic Context.** St. Joseph's Hall was constructed in 1909 at the corner of Derby Street and Palfrey Court. Its construction replaced sites 94, 95 and 95a, which consisted of two tenements, club room and a storage shed, respectively. This site is referenced as Structure 12 by Friedlander et al. (1991). The property that St. Joseph Hall is on, as well as the lots that front Kosciusko Street east of the park, was originally land conveyed by Timothy Laskin to Robert Gray before 1656, and then passed to John Ingersoll, Sr.. John Ingersoll, Jr., a mariner, built a house on this property around 1670. The land passed through several hands until Richard Downing, a cooper, sold the dwelling house and the three-fourths-acre parcel on which it stood in 1721 to Warwick Palfrey, a sailmaker (Friedlander, 1991:140). Between 1744 and 1746, Palfrey bought out the interests to the adjacent lot, bounded on the east by a lane (probably Daniels and formerly Ingersolls), on

the south by the harbor, on the west by Palfrey, and on the north by James Diman. This new land was formerly Samuel Ingersoll's property, which had devolved among several heirs (Friedlander 1991:141).

In 1756, Warwick Palfrey died and left his eldest son, Warwick Palfrey, the "dwelling house I live in with land, yard and garden belonging thereto with the warehouse thereon" together with the flats on the west side of the Long Wharf (Friedlander 1991:141). When Warwick Palfrey the Younger died in 1797, he bequeathed the eastern one-half of his dwelling house to his son Thomas along with the "lot of land and wharf in front of my homestead with buildings thereon bounded northerly by Derby Street, easterly on land formerly Beadles, southerly on harbor, westerly on land and flats of E.H. Derby" (Friedlander 1991:141). His widow, Deborah, inherited a life interest in the other half of the dwelling that reverted to their son, Thomas, when she died (Friedlander 1991:141).

Thomas Palfrey, a trader, died intestate in 1802, so his widow, Martha, was appointed administrator on May 3, 1802. Thomas's estate included the eastern half of the dwelling house, one-half interest in the store, yard, and garden as well as the anticipated inheritance of the western half of the dwelling and one-half interest in the store that would come to the estate at the death of Deborah Palfrey. Also included were the land, wharf, and flats south of the mansion house bounded by Derby Street on the north, another small parcel bounded by Derby Street on the north and Daniels Street on the west, a half-interest in a wharf and warehouse near Union Wharf and another half-interest in a new store standing on James Very's land (Friedlander 1991:141). The estate eventually passed to Thomas Palfrey's three young sons: Thomas, age 9; Warwick, age 7; and John Crowninshield, age 4. On July 17, 1820, John Crowninshield Palfrey sold his one-third interest in the property to his brother Thomas, a merchant in Salem and a year later, Thomas Palfrey, a distiller, and his brother

William Warwick Palfrey, sold the property south of Derby Street to Benjamin Hawkes. It was at this point described as being bounded on the west by "land and flats of Elias Derby now of Ezekiel Mersey Derby and improved by Hawkes" (Friedlander 1991:142). The area north of Derby Street remained in the hands of Warwick W. Palfrey.

William Warwick Palfrey died in 1838 and assigned all of his property to Stephen Webb, directing Webb to pay his widow an annual income from it for the remainder of her life and allowing him to sell any part of the real estate to ensure the widow an adequate income. After she died, each of the children of William's brother Thomas was to receive a bequest of \$1,000, and the residue of the estate was to go in equal shares to Ebenezer Tibbets and Edward R. Seccomb. Palfrey left his residence, which was apparently not located on Derby Street, to the North Church and Society (Friedlander 1991:142).

Seccomb mortgaged his interest in the Palfrey property to Stephen Webb on January 21, 1839, who then assigned it to Michael Shepard, acting on behalf of Ebenezer Tibbets. In 1843, Shepard passed his rights to the Palfrey property to Edward Seccomb, then in Boston, and a week later Seccomb and Tibbets sold a portion of the Palfrey property bounded on Derby Street on the south and by "a court or way" (Palfrey Court) on the west to Theophilus Sanborn. The remainder of the Palfrey lot, bounding the Sanborn lot on the north, was sold on the same day to Michael Shepard, Samuel Gardner, and Caleb M. Ames (Friedlander 1991:143). Theophilus Sanborn died on December 13, 1860, and his estate entered into probate on February 5th, 1861. He left his widow, Lydia, use of the "homestead in Becket Street" for the remainder of her life, directing that the estate was to be divided into seven equal shares after she died with each of their six children inheriting one share and the seventh to be divided between their two grandchildren.

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P. Foster, all of whom were proprietors of businesses along Derby Street within Salem Maritime NHS were appointed appraisers of Sanborn's estate. His property included a wharf, small house in the rear of the wharf and store, all at No. 115 Derby Street, a brick house at No. 100 Derby Street, and a dwelling house and shop at No. 98 Derby Street (Friedlander 1991:143). The wharf and store were taken over by his sons George and Franklin T. Sanborn and the heirs sold the parcel at 100 Derby Street at the corner of Derby and Palfrey Court to John and Michael Hurley in 1867. The lot had been developed as rental property by 1840 and by 1850 the house at 100 Derby Street was leased to Charles Haskell, a 42-year-old engineer, and his family (Friedlander 1991:143). By 1860 the dwelling had been subdivided into two units with the Haskells in one half, and Darling Huntress, a 47-year-old teamster from Maine and his family were in the other. In 1880, John Noonan, a 55-year-old Irish laborer, and his family were at 100 Derby Street (Friedlander 1991:144).

In 1906, the owners conveyed the lot to the St. Joseph Polish Catholic Society. The Sanborn dwelling was razed and the existing building constructed in 1909. A portion of the property that was numbered variously as 160-162 or 158-162 Derby Street was occupied as a boarding house. In 1910, 160 Derby Street was managed by a 55 year old Russian Polish widow, Mary Tabuski. Borders were primarily of Russian or German Polish descent who ranged in age from 18 to 30 and were employed at either the morocco leather factory or the cotton mills. Over the years, the building housed numerous functions serving social and cultural needs of the local Polish community (Friedlander 1991:144). From 1909 to 1947 the two front rooms were occupied by Alper's Men's Store. In 1909 there was a "lunch room" in the building in addition to the previously described boarding house. In 1988, St. Joseph Polish Catholic Society conveyed the property to the National Park Service for incorporation into the park (Friedlander 1991:142).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The footprint of St. Joseph Hall takes up the entire lot and is surrounded on Derby Street and Palfrey Court by asphalt and red brick paving. There are no archaeological resources presumed to be associated with this site.

**Recommendations.** No archaeological testing is recommended for this site.

#### **Store 27 Site**

ASMIS No. SAMA00058 (Fig. VI.5)

**Site Location, Description and Historic Context.** This site is located on Derby Street between and south of the Derby and Hawkes Houses. It is also located immediately east of site 28. Constructed ca.1911, this structure housed a commercial clothing store on the first floor and residents on the second. This site is referenced as structure 27 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of this site is presently unknown. It is likely to have been disturbed by demolition and is currently covered with grass and red brick pathways.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with occupation of this structure.

#### **Dwelling 39 Site**

ASMIS No. SAMA00059 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located immediately south of structures 38a and 38b at the northeastern end of Derby Wharf. This dwelling, constructed ca.

1931, replaced structures 59, 60, 113, and 126, and is referenced as structure 39 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of this site is unknown. It is currently covered with grass.

**Recommendations.** Archaeological testing is recommended for any undertaking at this location to document the potential presence of archaeological deposits associated with occupation of this dwelling.

#### **Bake Shop and Garage Site**

ASMIS No. SAMA00060 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located at the northeast end of Derby Wharf immediately south of sites 40 and 41. Construction of this structure (No. 42) ca. 1931 took the place of a group of buildings, Nos. 64, 65, 66, 67, 68, 114, 128, 129, and 130 as referenced by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigation.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been undertaken.

**Site Condition.** This site is currently covered with crushed stone pathways and grass. Site conditions of the archaeological deposits are unknown at this time. It is likely that the 1938 WPA reconstruction of Derby Wharf disturbed archaeological deposits.

**Recommendations.** Archaeological testing is recommended for this site to document the potential presence of deposits associated with the Bake Shop and Garage as well as remains of earlier structures at the same site.

### Sausage Factory Site

ASMIS No. SAMA00061 (Fig. VI.9)

**Site Location, Description and Historic Context.** This site is located immediately south of structure 34 along the western border of Tucker's Wharf. The factory (No. 35) was constructed ca. 1931 and contained an automobile garage (No. 36) to its south. It was one of a few industrial sites in the area at this time and replaced earlier structures 52, 53, and 97 consisting of a dwelling house and two sheds as referenced by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This structure was demolished for the 1979 construction of a residence and is currently landscaped with grass.

**Recommendations.** Archaeological testing is recommended for this site in association with any subsurface undertaking to document potential archaeological remains associated with this local industry.

### Scales 50 Site

ASMIS No. SAMA00062 (Fig. VI.6)

**Site Location, Description and Historic Context.** This small site is located at the north end of Central Wharf on Derby Street between structures 9 and 47. It was constructed ca. 1931 and demolished before 1938. This site is referenced as structure 50 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of the site is presently unknown. It is currently covered with grass and crushed stone pathways.

**Recommendations.** Archaeological testing is recommended for any subsurface undertaking at this location to document archaeological

deposits that are associated with the Scales or that are associated with construction of Central Wharf.

### Polish Socialist Alliance of the U.S.A. Club Site

ASMIS No. SAMA00063 (Fig. VI.10)

**Site Location, Description and Historic Context.** This site is located at the southern terminus of Tucker's Wharf and on the west side of Kosciusko Street. This structure (No. 23) and associated shed (No. 22) were built ca. 1931 and demolished in 1978 (see Friedlander et al. 1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of this site is presently unknown, but its relatively recent demolition suggests that associated archaeological deposits may have been severely disturbed. The area is currently covered with grass.

**Recommendations.** No archaeological testing is recommended specifically for this site, but deep undertakings in this area should be monitored by an archaeologist to document deposits associated with the construction of Tucker's Wharf.

### Pump House Site

ASMIS No. SAMA00064 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site is located on the northwestern edge of Central Wharf and south of structure 48. This structure was built ca. 1936 and is referenced as structure 49 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of this site is presently unknown. It is currently covered with grass.



**Recommendations.** Archaeological testing is recommended for this site to document potential deposits associated with the Pump House. Deep undertakings in the area should be monitored by an archaeologist to document deposits associated with the construction of Central Wharf.

**Polish American Veterans Association Site**  
ASMIS No. SAMA00065 (Fig. VI.10)

**Site Location, Description and Historic Context.** This site is located at the south terminus of Tucker's Wharf and directly west of sites 22 and 23. This structure was constructed ca.1936 and was demolished before 1938. It is referenced as structure 24 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Snell (1974) and Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** The condition of this site is presently unknown. The very brief existence of the structure at this location suggests a low potential for archaeological remains associated with the function of the building. Nevertheless, significant veterans related remains could be present. This site is landscaped with grass.

**Recommendations.** It is recommended that subsurface undertakings at this location be monitored by an archaeologist to document potential remains of the veterans building and to document deposits associated with the construction of Tucker's Wharf.

**Naval Reserve Building Site**  
ASMIS No. SAMA00066 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site consists of a complex of buildings located at the northern end of Central Wharf. It was constructed ca. 1947 and replaced a number of warehouse and other structures on the wharf. The Naval Reserve complex was demolished between 1973 and 1978. This site is

referenced as structures 14, 15, 16, 17, 18, and 19 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted at this site by Friedlander et al. (1991). Archaeological investigations associated with installation of utilities and with documenting the historic fabric of the wharf have exposed portions of concrete foundations associated with these buildings (see Alterman et al. 1995; Garman et al. 1998; Donta et al. 1998)

**Site Condition.** This site is covered in grass, crushed stone pathways, and red brick walkways. The construction and demolition of the Naval Reserve buildings severely impacted archaeological deposits located in its immediate vicinity, but intact deposits associated with earlier occupations are present in the area (see Donta et al. 1998).

**Recommendations.** Archaeological monitoring is recommended for any subsurface undertaking at this location to document archaeological features or deposits associated with earlier structures or with wharf construction in this area. The large blocks of concrete associated with the Reserve Building, some measuring 10 ft. in length, are likely to be encountered when assessing portions of Central Wharf.

**Central Wharf Warehouse Site**  
ASMIS No. SAMA00011 (Fig. VI.6)

**Site Location, Description and Historic Context.** This site is located on Derby Street at the head of Central Wharf. This structure was relocated in 1977 to the site from 31 Front Street, along with a second similar structure that originated from 33 Front Street. The relocation of the first structure to this site replaced structures 48, 80, and 81. This building presently serves as the Park's Orientation Center and is referenced as structure 10 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for the Front Street Property by Marie (1982) and Friedlander et al. (1991). Archaeological investigations were car-

ried out by Marie (1982) prior to the structure's moving to SAMA.

**Site Condition.** The impact of moving the Central Wharf Warehouse to this site on potentially intact archaeological resources is not presently known. It is likely that archaeological deposits were disturbed during the relocation of the structure from Front Street. The site is currently covered by the warehouse and the surrounding area is landscaped with grass and paved with asphalt and brick walkways.

**Recommendations.** Archaeological monitoring is recommended for any subsurface undertaking at this location to document archaeological features or deposits that may be associated with earlier structures located at the site or with construction of Central Wharf.

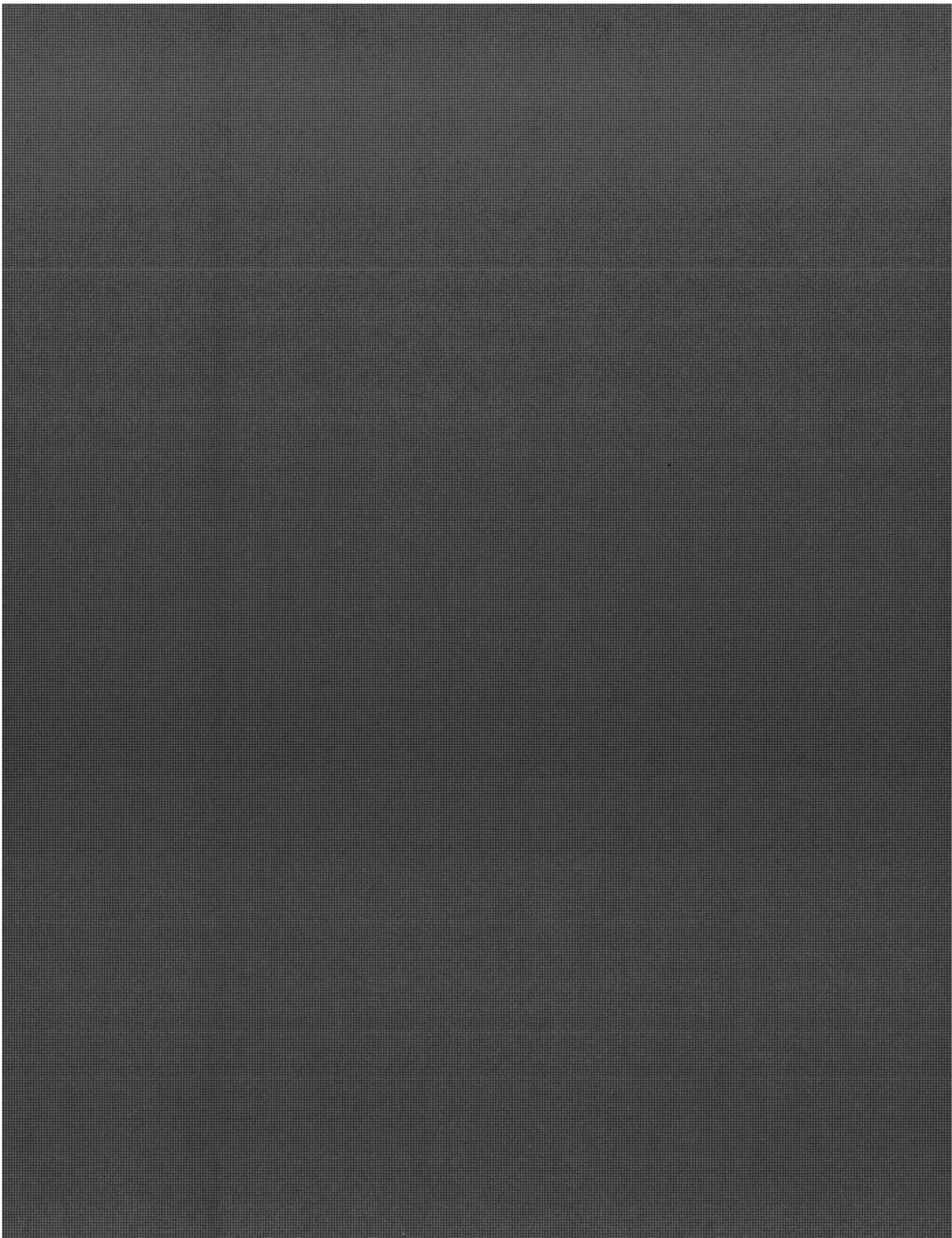
## **Residence 20 Site**

**Site Location, Description and Historic Context.** This existing residence is located at the south end of Tucker's Wharf on the west side of Koscuisko Street. It was constructed in 1979 and replaced structures 21, 22, and 23. This structure is privately owned and is referenced as structure 20 by Friedlander et al. (1991).

**Documentary Research and Archaeological Investigations.** Documentary research was conducted for this site by Friedlander et al. (1991). No archaeological investigations have been conducted.

**Site Condition.** This existing structure is surrounded by a yard landscaped with grass. The condition of archaeological deposits below the structure is unknown.

**Recommendations.** No archaeological testing is recommended for this site, but any undertakings on Tucker's Wharf should be monitored by an archaeologist to document aspects of the wharf's construction and associated deposits.



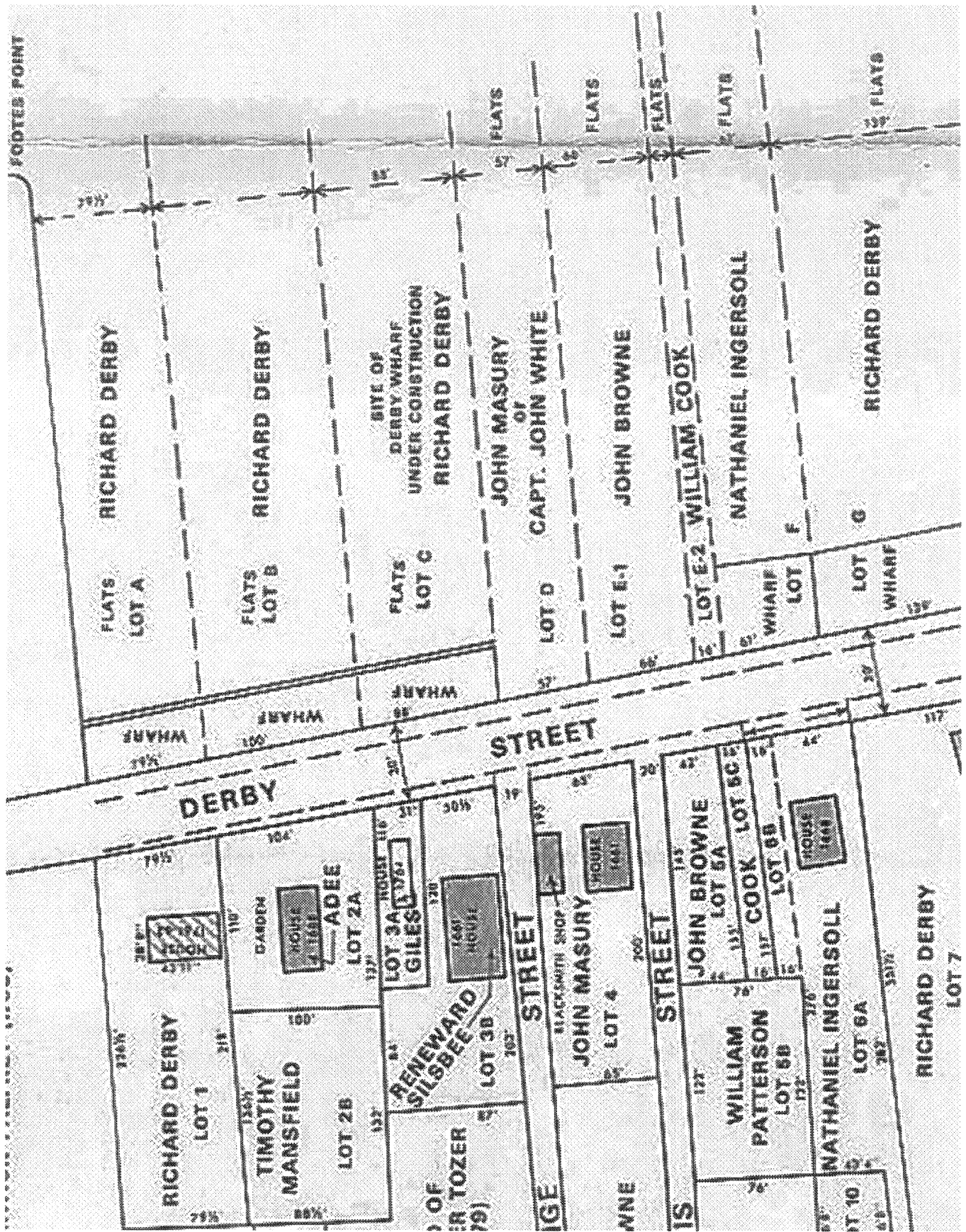


Figure VI.11. Salem Waterfront in 1764 (Snell 1977).



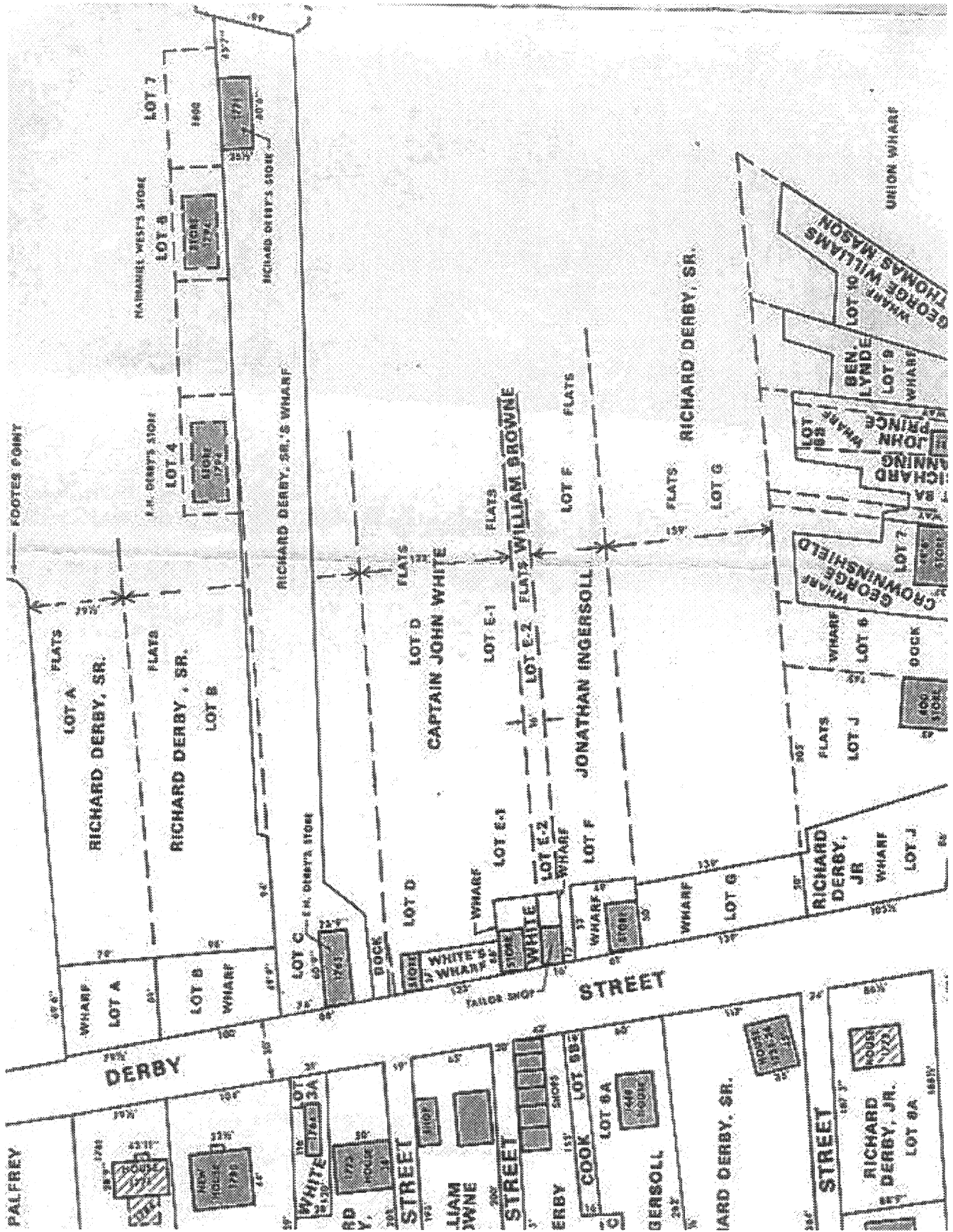


Figure VI.12. Salem Waterfront in August 1783 (Snell 1977).

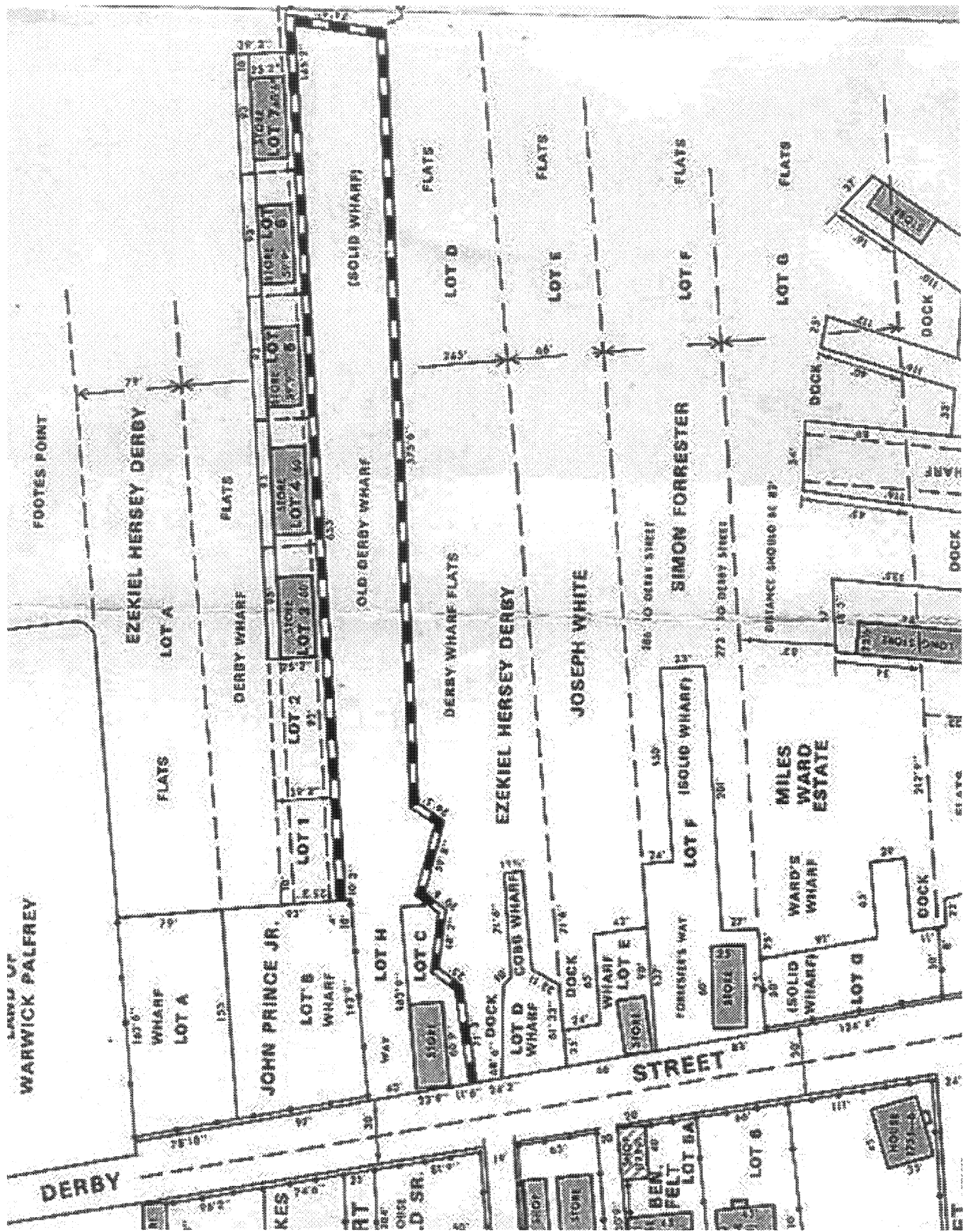


Figure VI.13. Salem Waterfront in February 1805 (Snell 1977).



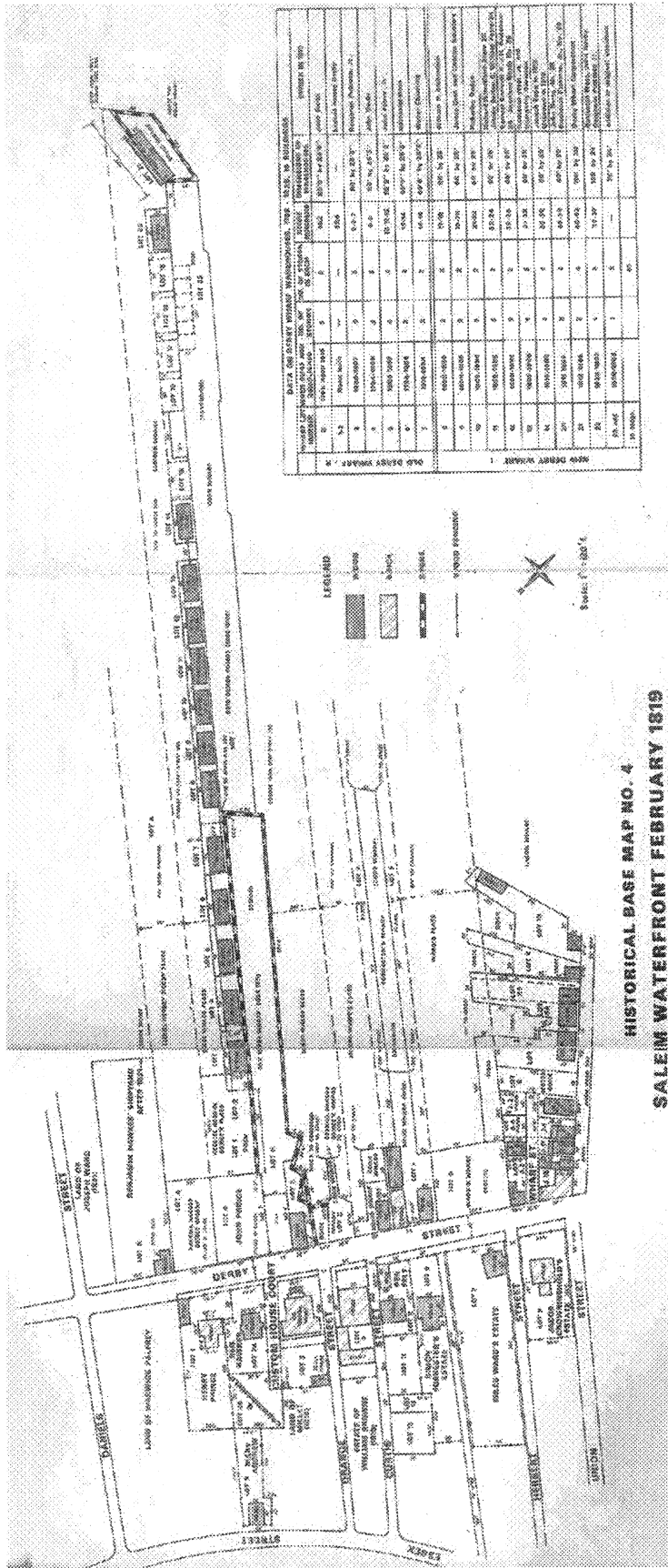


Figure VI.14. Salem Waterfront in February 1819 (Snell 1977).

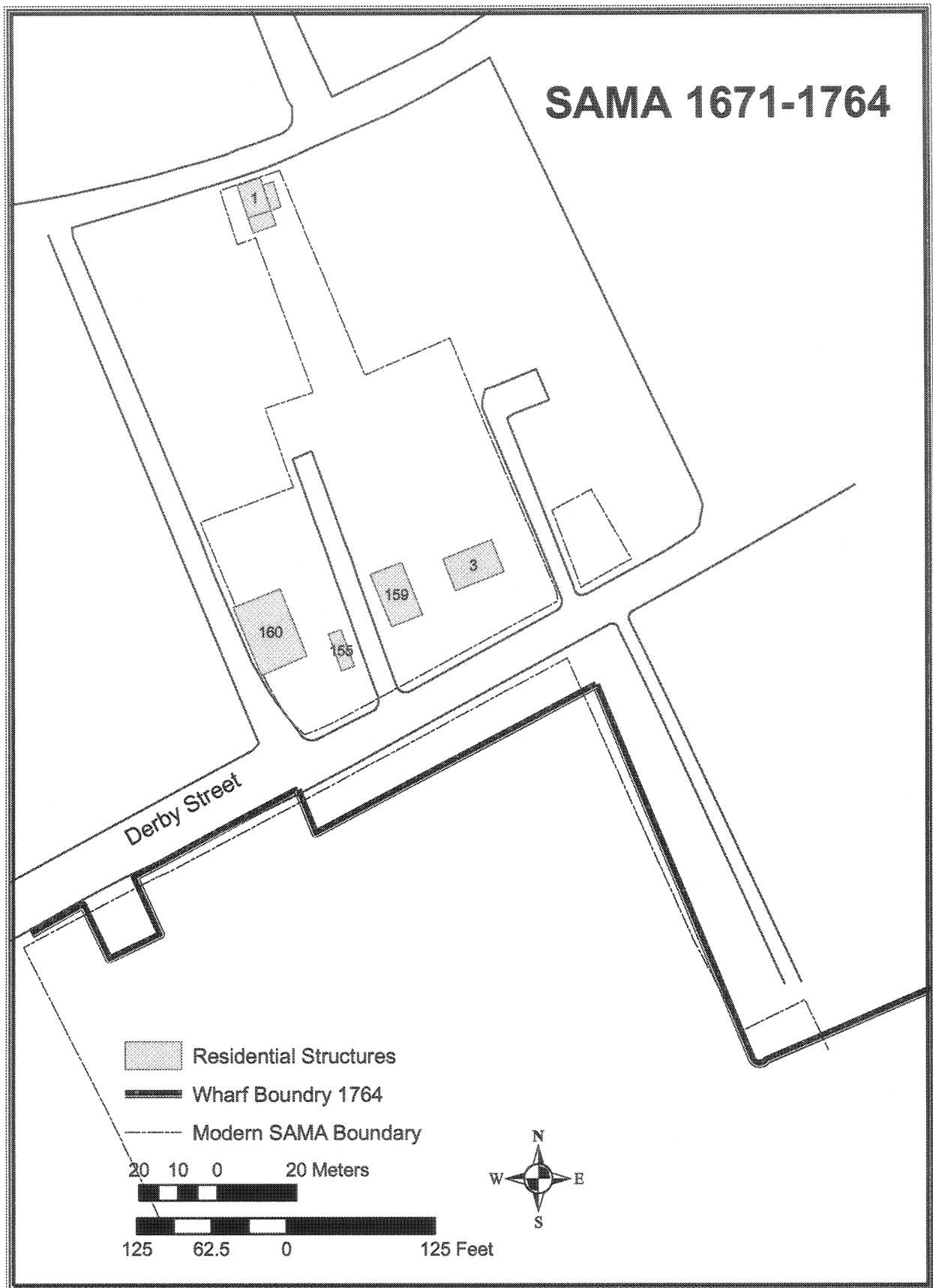


Figure VI.15. Structures Present in SAMA ca. 1671-1764. (Structure numbers refer to designations in Friedlander et al. 1991)

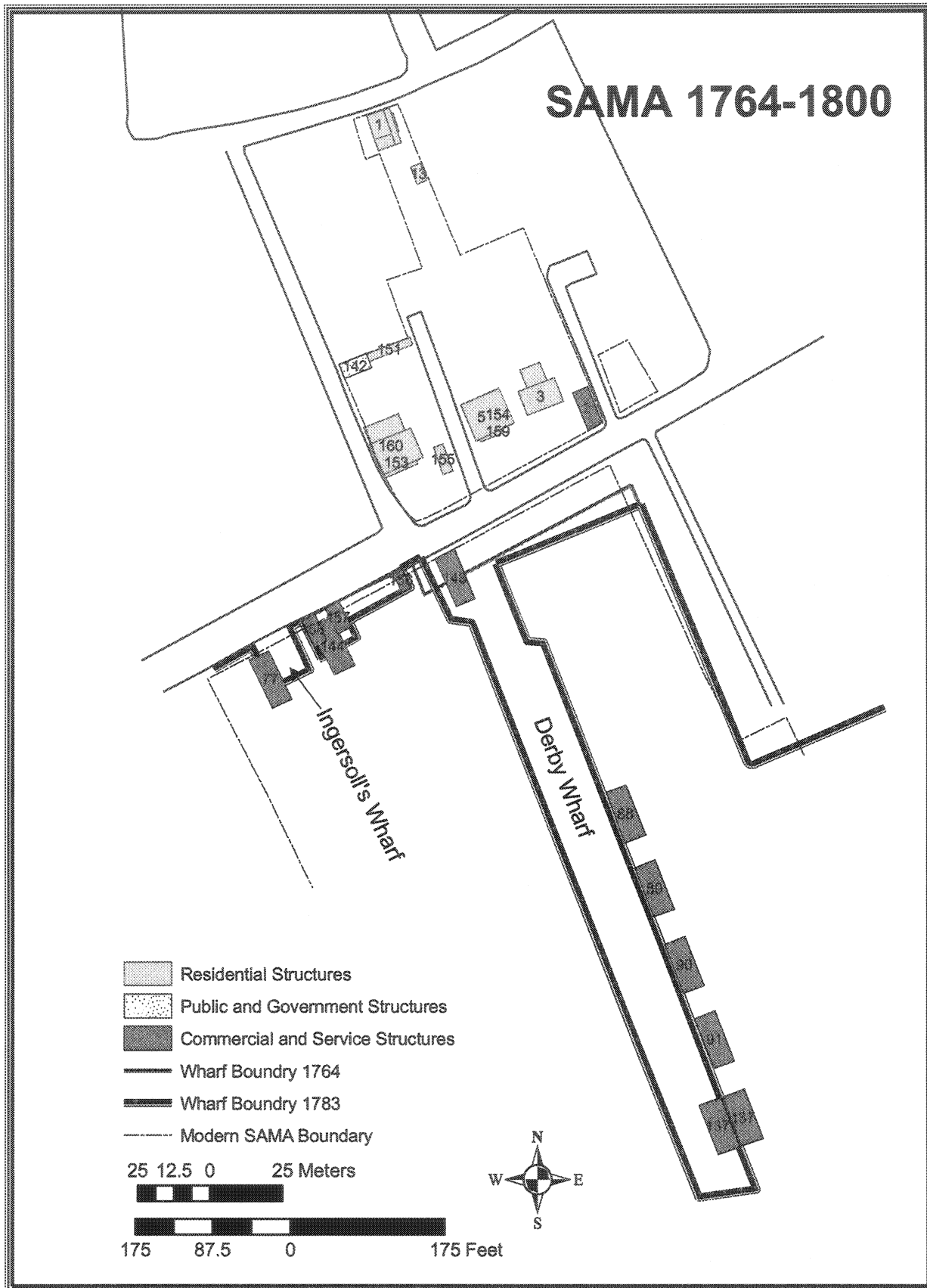


Figure VI.16. Structures Present in SAMA ca. 1764-1800. (Structure numbers refer to designations in Friedlander et al. 1991)

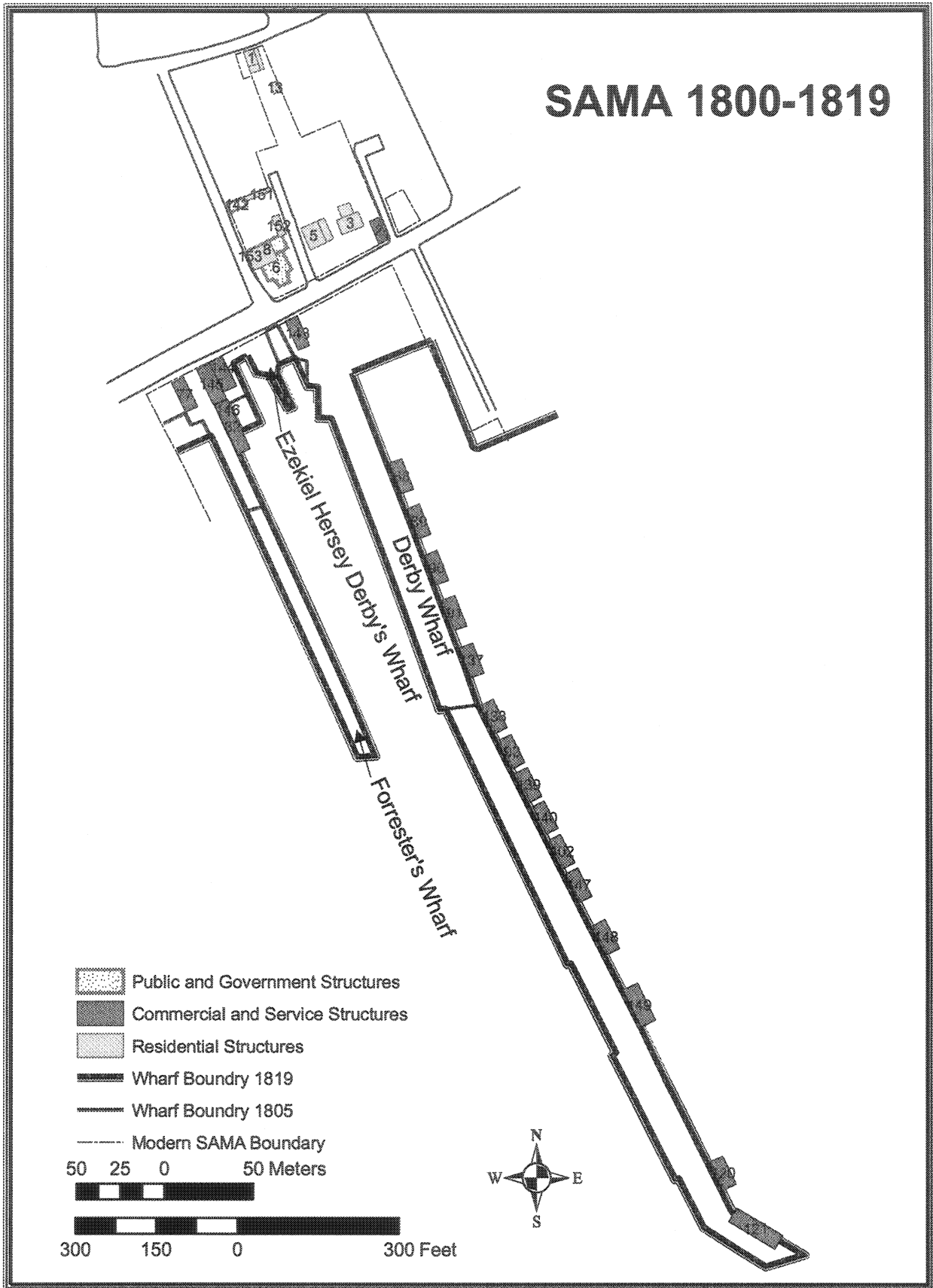


Figure VI.17. Structures Present in SAMA ca. 1800-1819. (Structure numbers refer to designations in Friedlander et al. 1991)

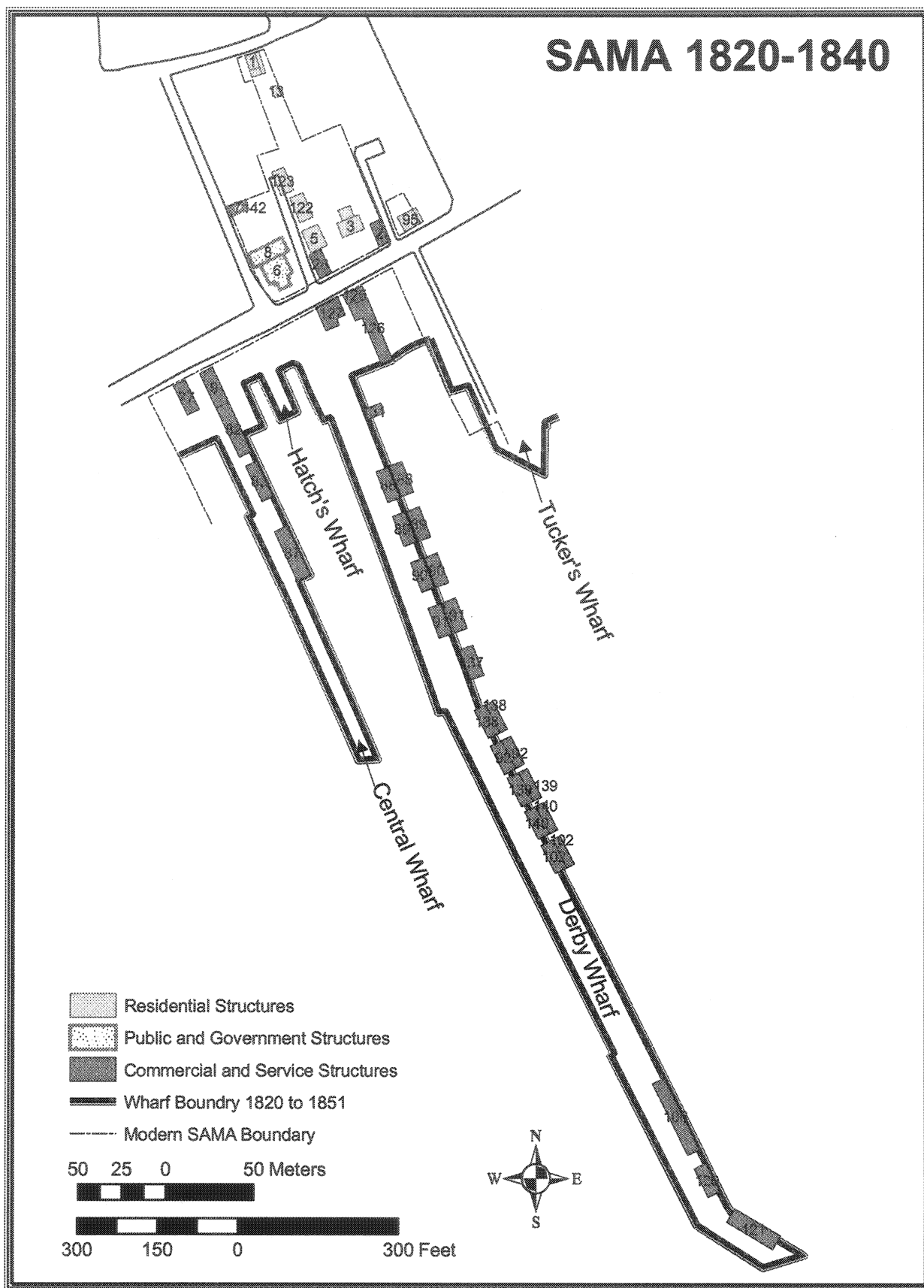


Figure IV.18. Structures Present in SAMA ca. 1820-1840. (Structure numbers refer to designations in Friedlander et al. 1991)

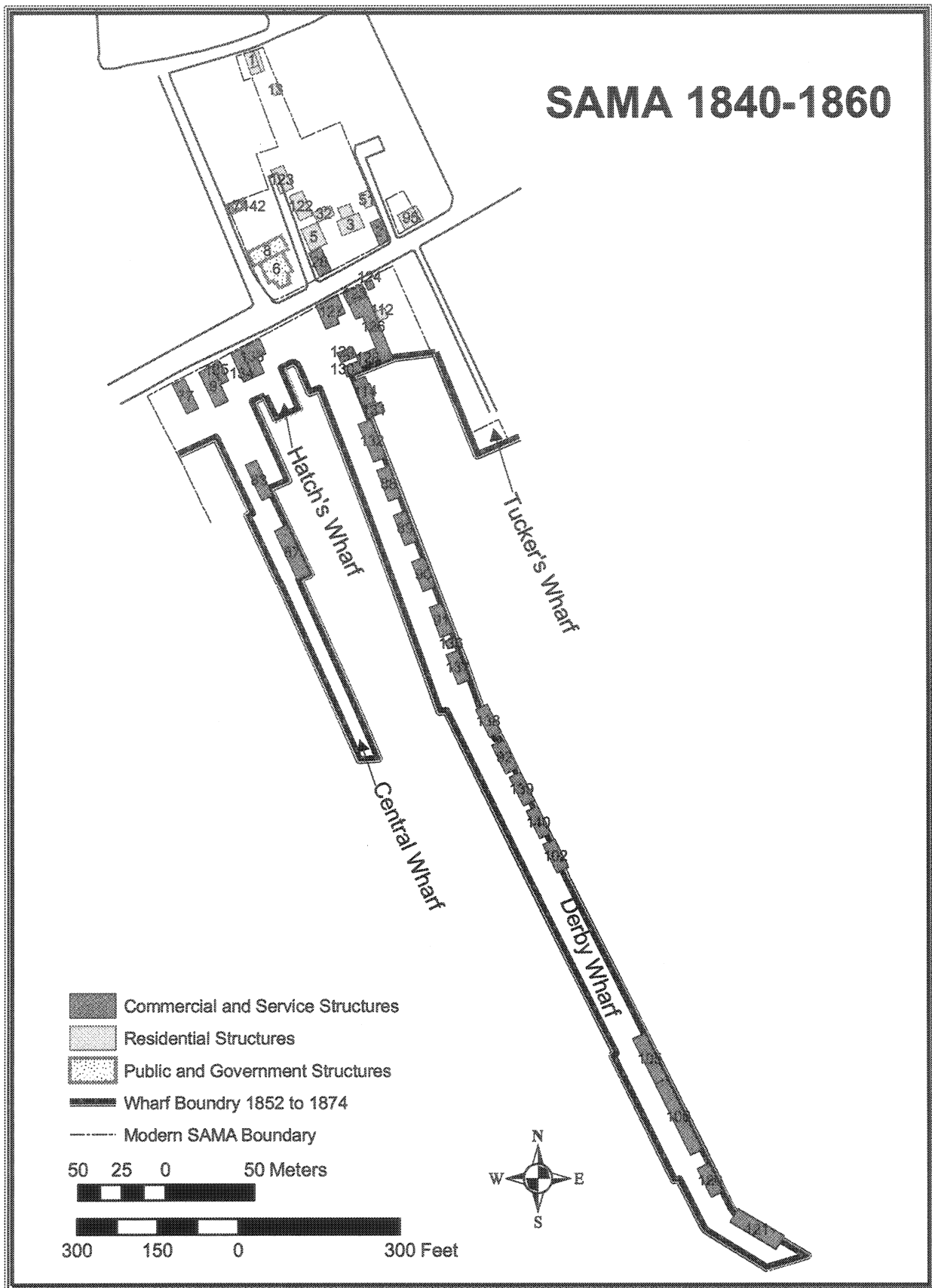


Figure VI.19. Structures Present in SAMA ca. 1840-1860. (Structure numbers refer to designations in Friedlander et al. 1991)



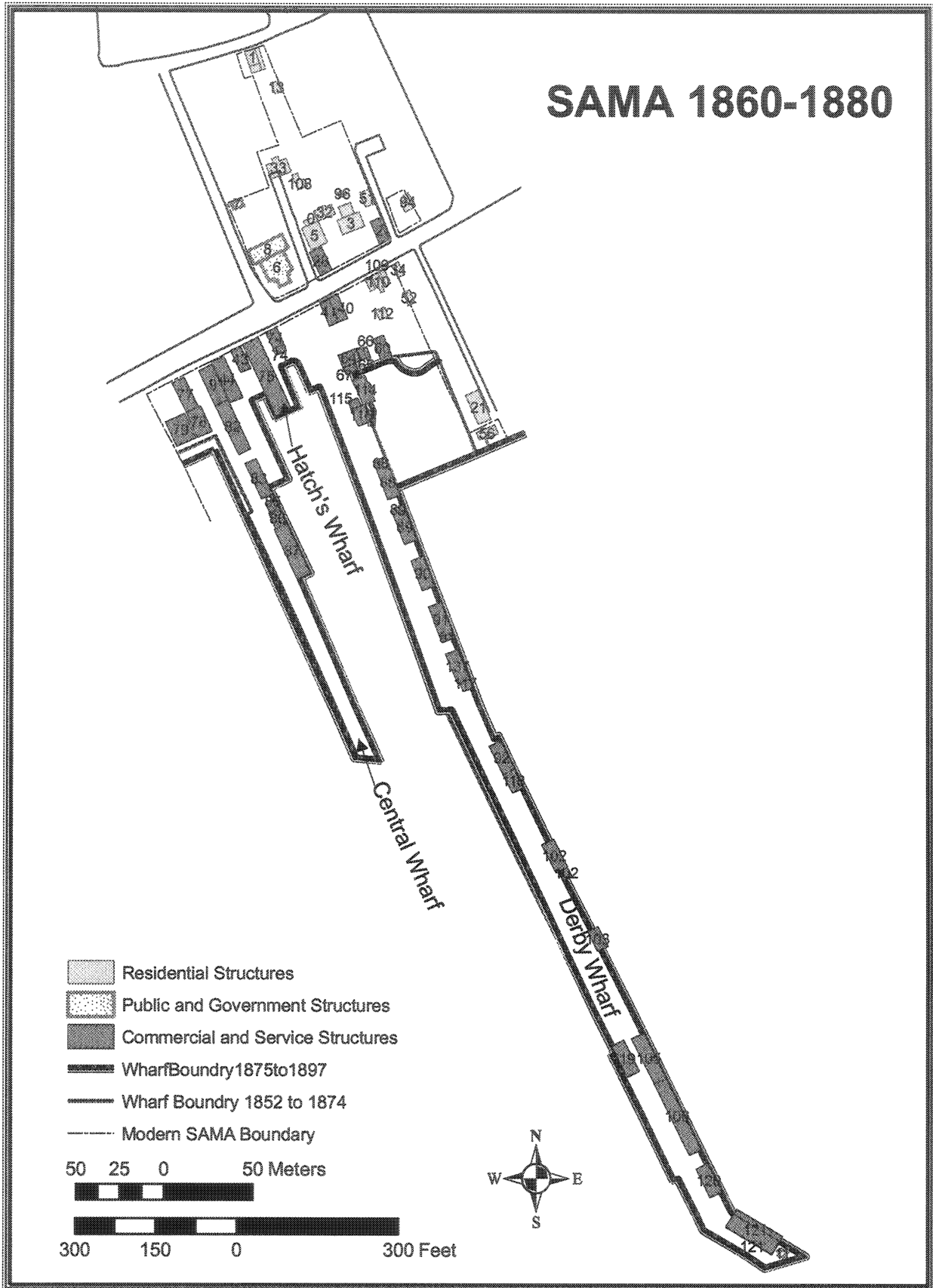


Figure VI.20. Structures Present in SAMA ca. 1860-1880. (Structure numbers refer to designations in Friedlander et al. 1991)

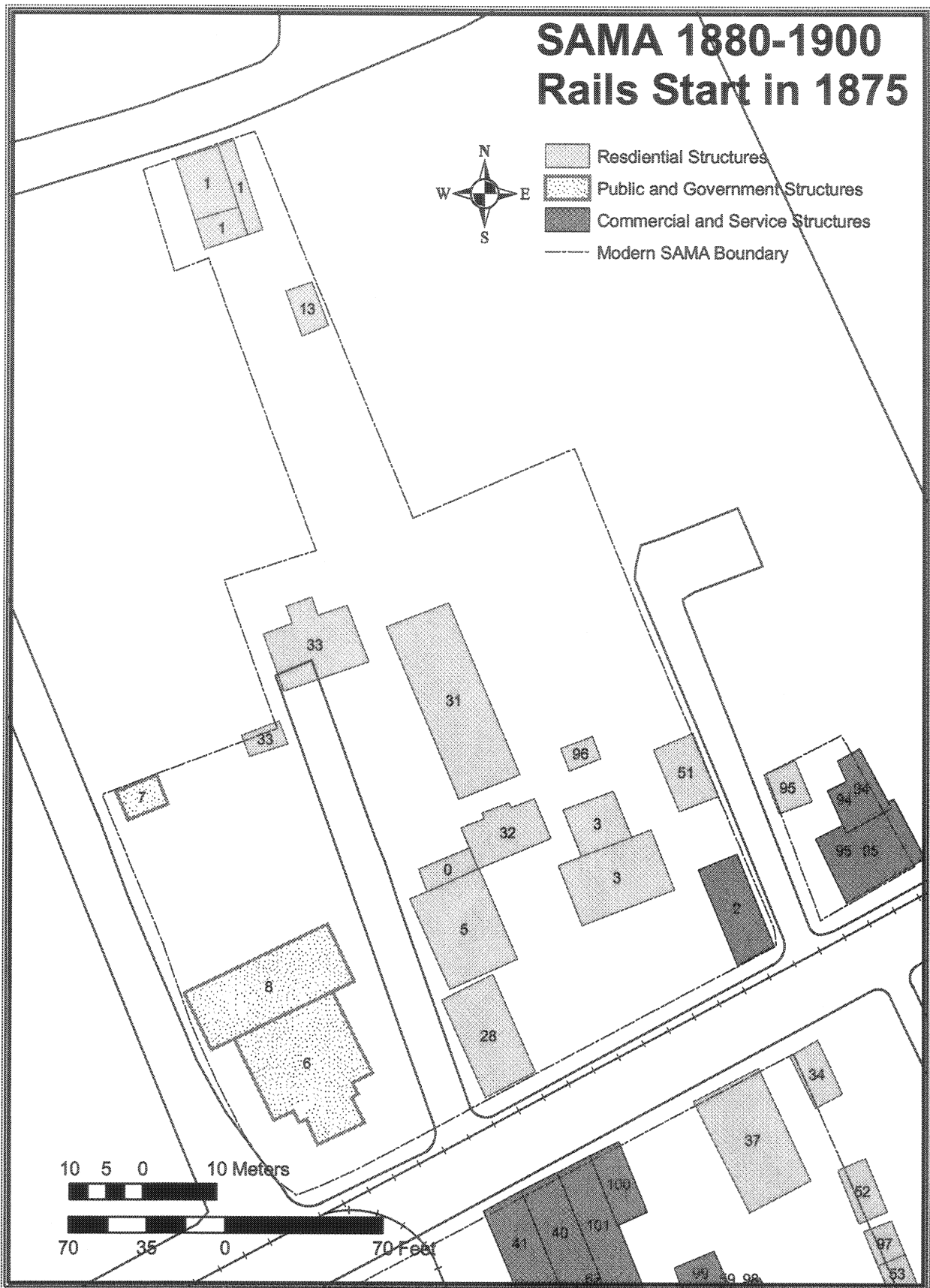


Figure VI.21. Structures Present in SAMA North of Derby Street ca. 1880-1900. (Structure numbers refer to designations in Friedlander et al. 1991)

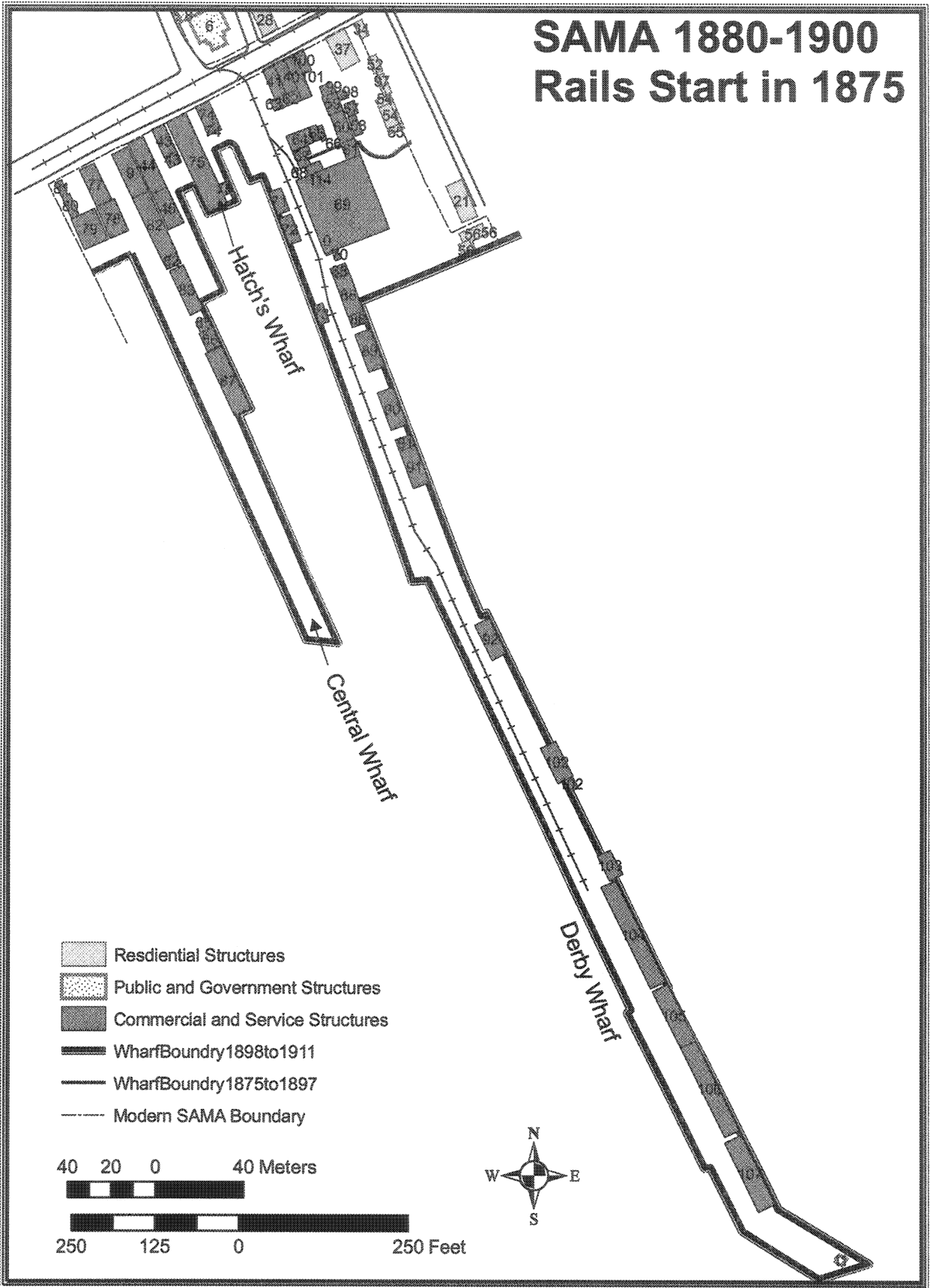


Figure VI.22. Structures Present in SAMA South of Derby Street ca. 1880-1900. (Structure numbers refer to designations in Friedlander et al. 1991)

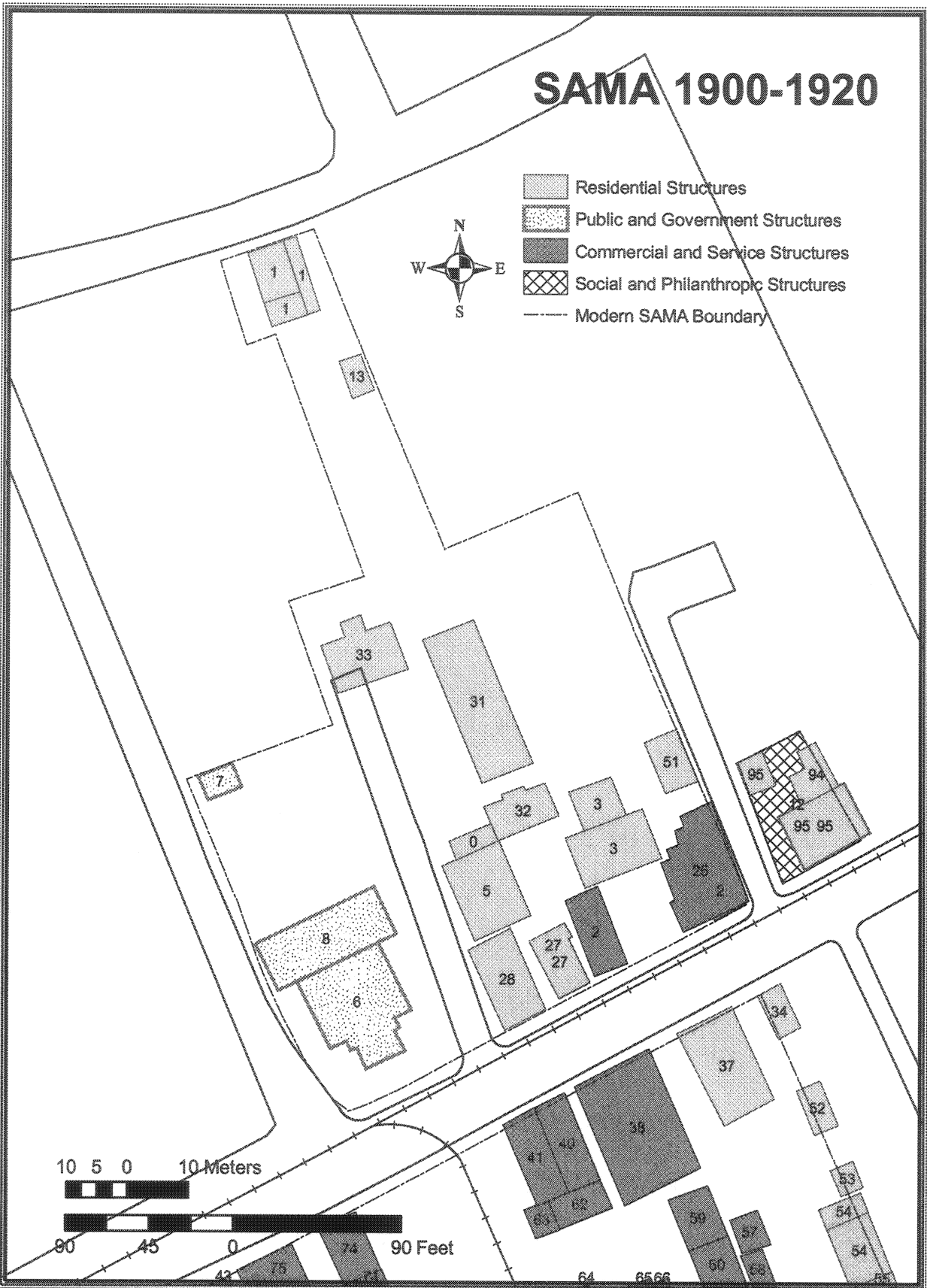


Figure VI.23. Structures Present in SAMA North of Derby Street ca. 1900-1920. (Structure numbers refer to designations in Friedlander et al. 1991)

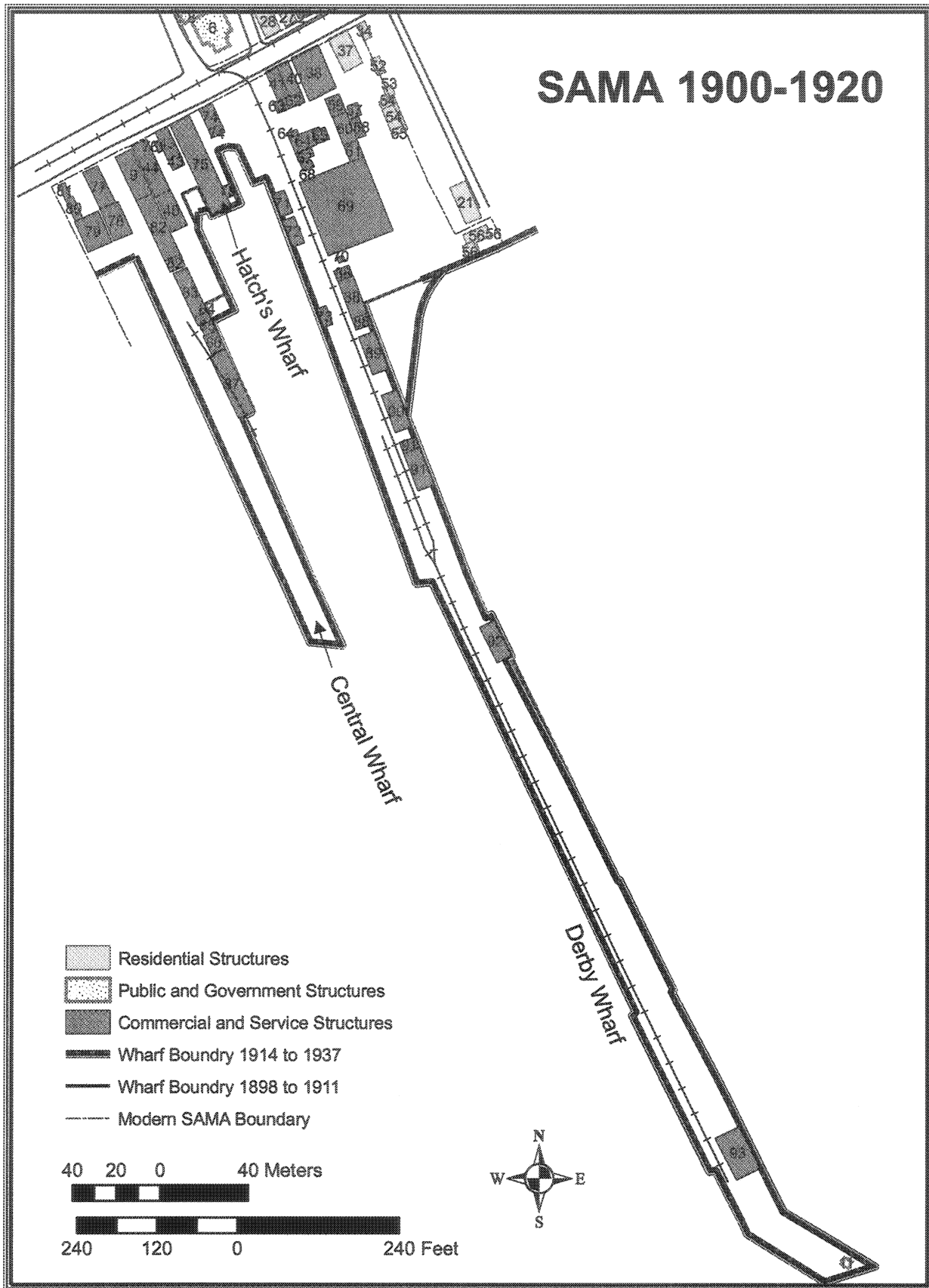


Figure VI.24. Structures Present in SAMA South of Derby Street ca. 1900-1920. (Structure numbers refer to designations in Friedlander et al. 1991)

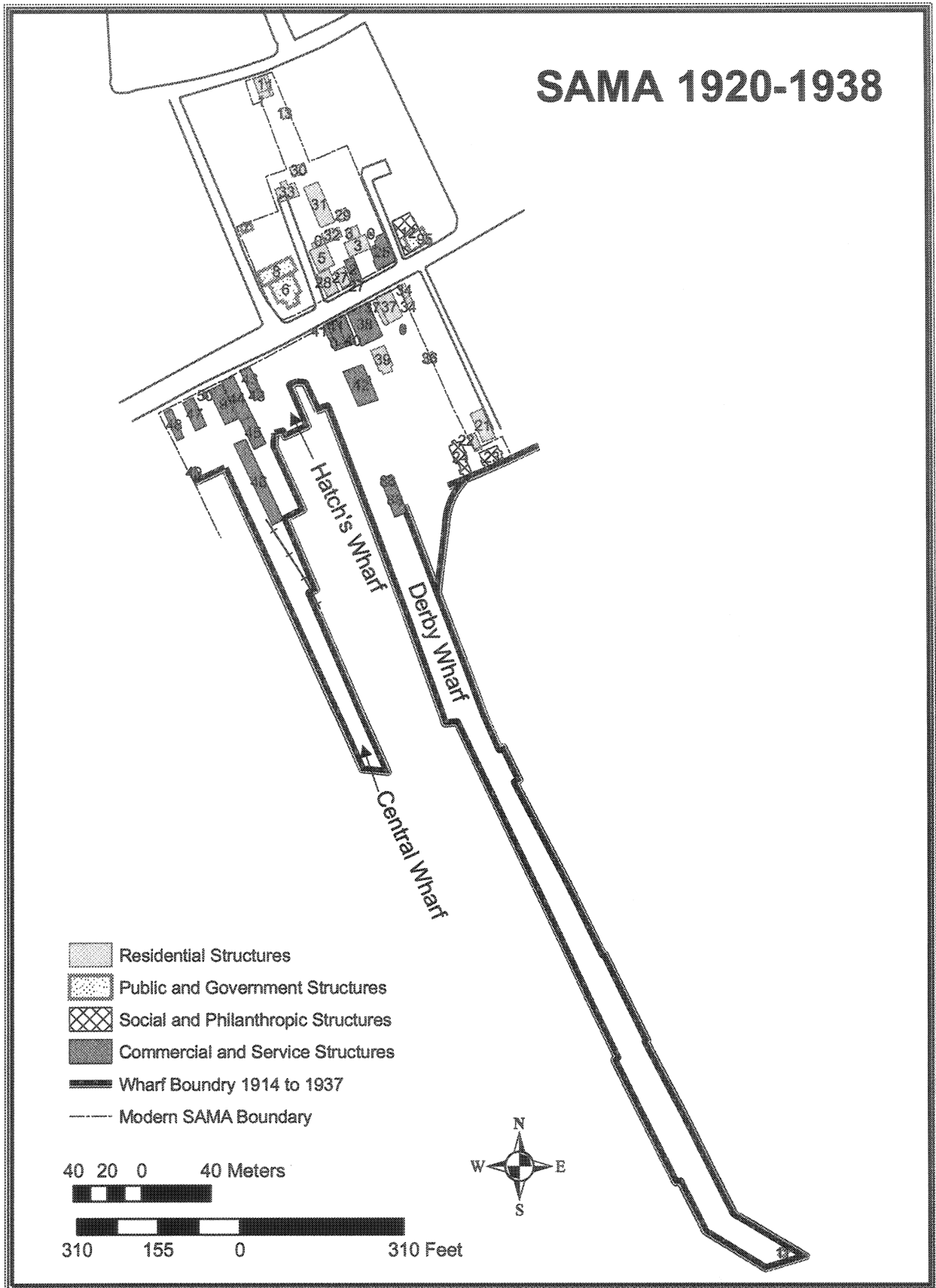


Figure VI.25. Structures Present in SAMA ca. 1920-1938. (Structure numbers refer to designations in Friedlander et al. 1991)



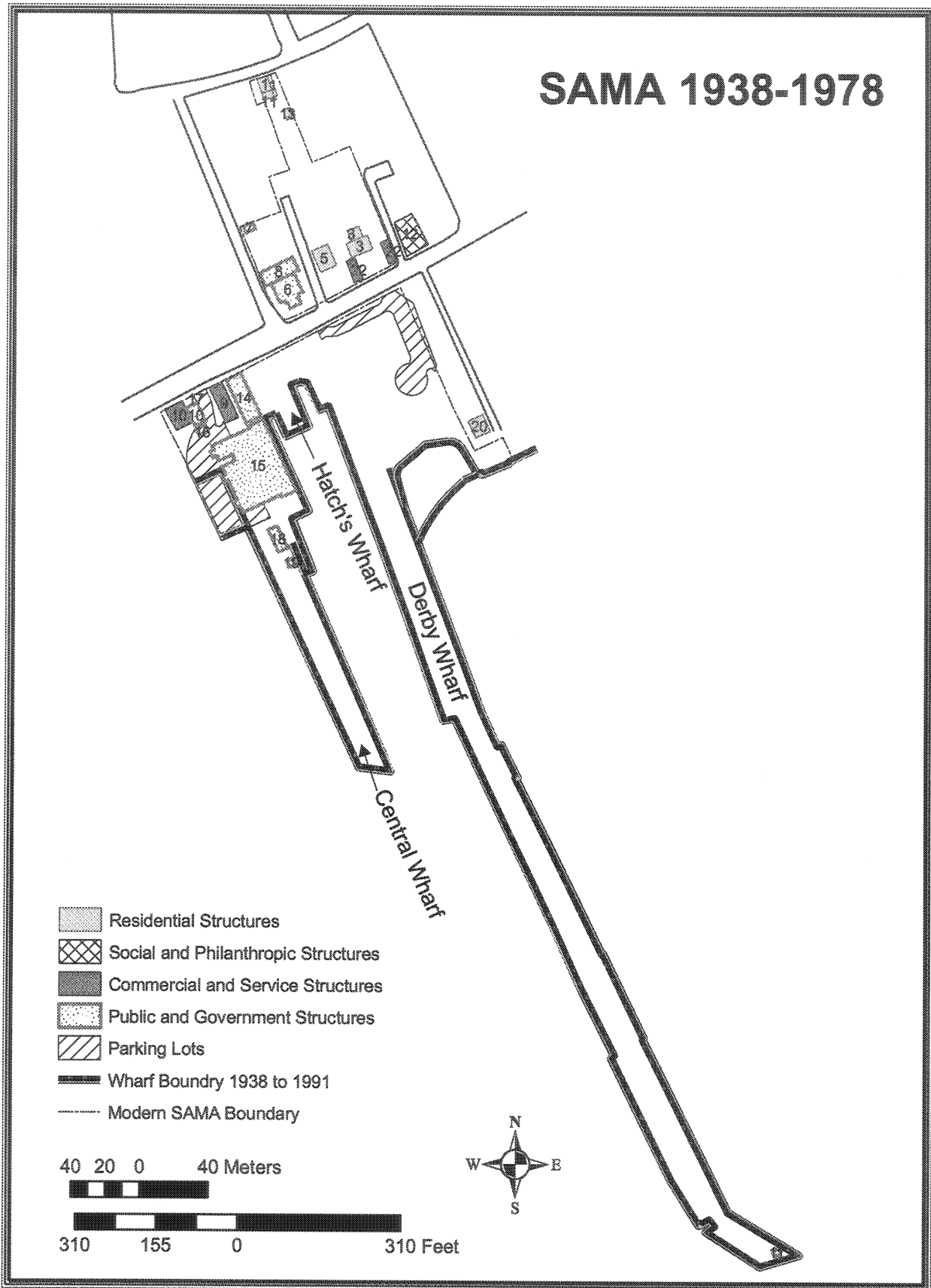


Figure VI.26. Structures Present in SAMA ca. 1938-1978. (Structure numbers refer to designations in Friedlander et al. 1991)

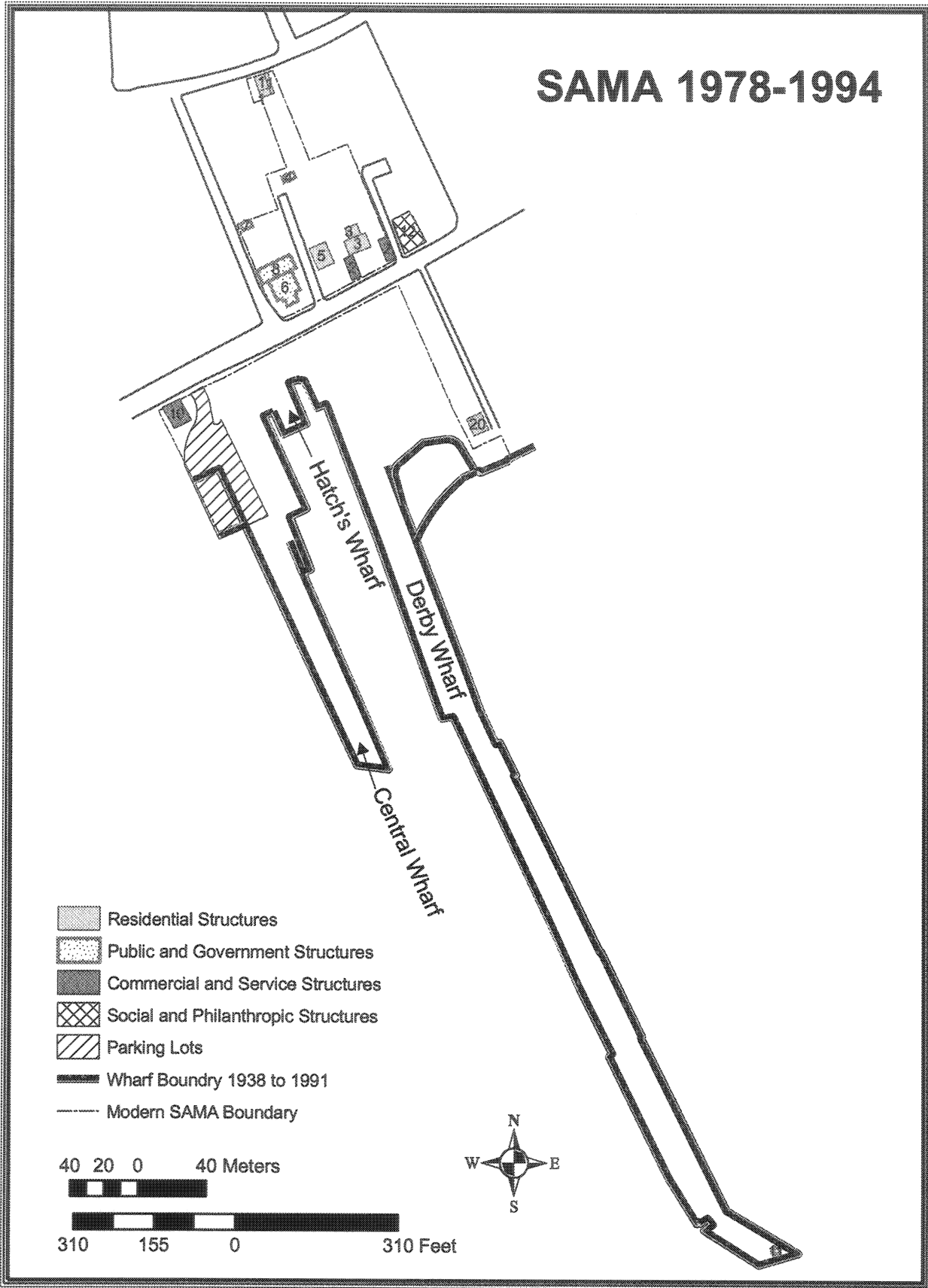


Figure VI.27. Structures Present in SAMA ca. 1978-1994. (Structure numbers refer to designations in Friedlander et al. 1991)

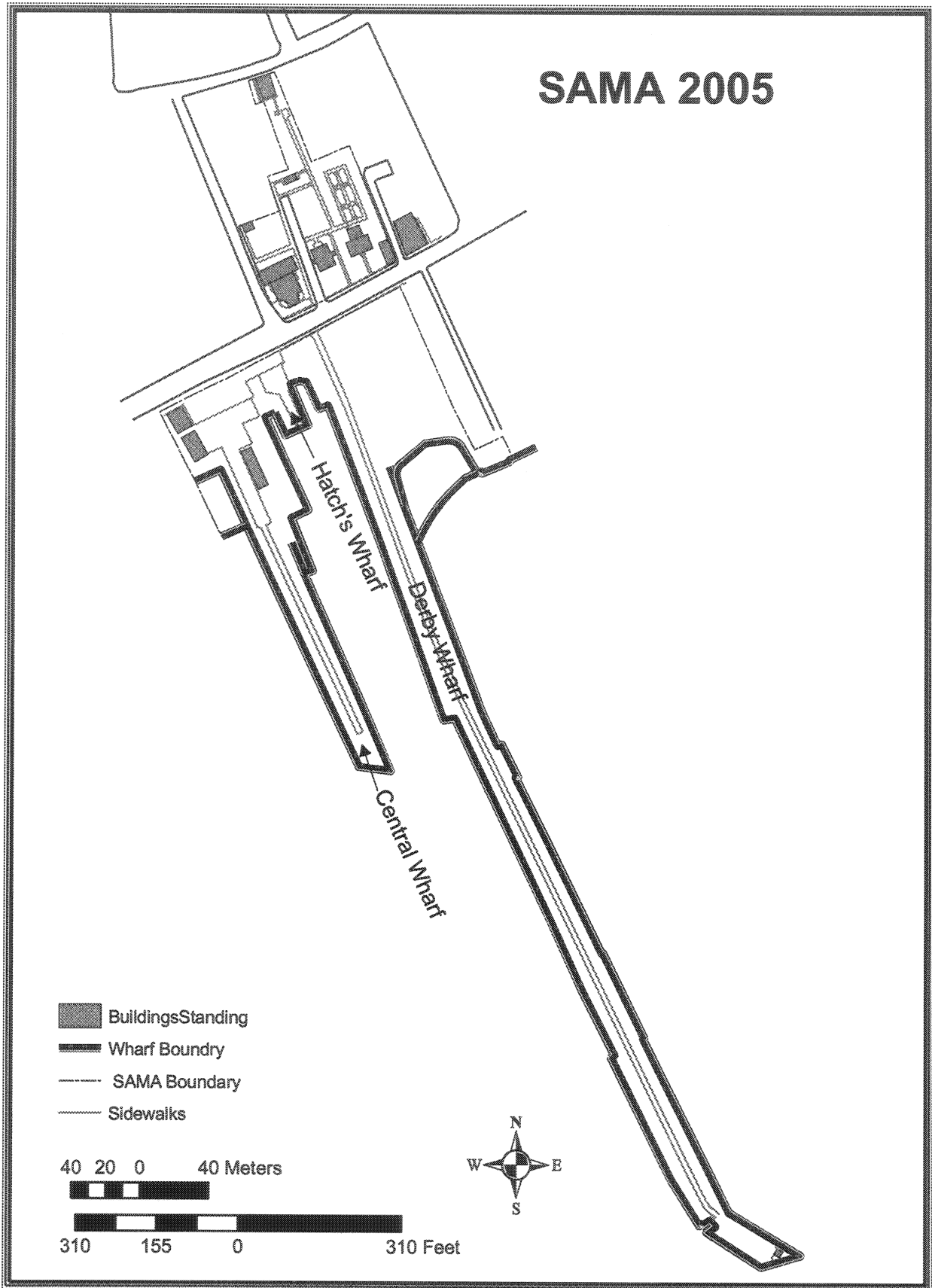


Figure VI.28. Structures Present in SAMA ca. 2005.

## VII. RECOMMENDATIONS

Salem Maritime National Historic Site possesses a high density of known and potential archaeological resources that are distributed across the site. Together these possess the potential to provide important data on both Native American and Euro-American occupation and land use patterns within the park. Maintenance of park facilities and resources will require undertakings from time to time that maintain the potential to adversely affect buried cultural resources. This section presents procedures that will help to ensure compliance with federal historic preservation legislation regarding the treatment, use and identification of cultural resources as well as assist with tasks set forth by the System Wide Archaeological Inventory Program.

### A. Systemwide Archaeological Inventory Program (SAIP)

One of the mandates of the NPS is the long-term preservation of the nation's cultural resources that are under its care. The application of this policy to archaeological resources was established in 1992 with the SAIP, an outgrowth of the National Archaeological Survey Initiative. The goals of this program are to identify such resources in National Parks for the purpose of protection. Scheduling guidelines have been established to help park administrators with implementation of the SAIP (Aubrey et al. 1992). Inventory of archaeological resources is recommended to occur:

- 1) In coordination with development or revision of park planning documents including General Management Plans, Resource Management Plans, Development Concept Plans and Interpretive Prospectuses,
- 2) When park areas have been adversely affected by human activities or by natural processes,
- 3) When development zones or special use zones within a park area are identified (these should take high priority due to the increased potential for adverse affects),
- 4) When parks or historic zones within

parks are listed on the NRHP (parks or zones thereof that are already listed should take high priority due to their demonstrated historical significance),

5) When research questions, problems, topics or priorities involving state, regional or national importance have been identified, and

6) When parks lack information about the potential presence of archaeological resources (such cases should be considered high priority and should begin the inventory process with an Overview and Assessment). It is also stated that inventories of archaeological resources should be undertaken when there is some expectation of their presence and there is a reasonable likelihood of their identification.

The inventory process consists of a series of tasks outlined by Aubrey et al. (1992) that requires park administrators to:

1) Determine the nature and extent of resources,

2) Document and evaluate their integrity and significance,

3) Determine their eligibility for listing on the NRHP using the Department of the Interior's standards and guidelines, and

4) Make recommendations for their long-term preservation and interpretation.

The first step in this process is the completion of an Overview and Assessment that identifies known and potential cultural resources and presents recommendations for their management and protection. Assisting with the assessment and documentation process is the creation of a standardized site database (ASMIS) that is used as an active mechanism for identification, tracking and ultimately maintenance of cultural resources. An additional tool to assist with this process is a GIS database that serves as a repository for all types of data associated with the built environment that can assist with maintenance and management.

## **B. Archaeological Research Questions for SAMA**

As with any archaeological site, many research questions can be posed regarding both the Native and Euro-American occupations. Such questions can be used to guide mandated compliance related investigations, exploratory investigations for the purpose of maintenance and research oriented projects. The questions below are intended to provide a broad coverage of issues that have the potential to be addressed by archaeological investigations that have occurred and that will occur in the future. Site-specific research and compliance work may focus on questions specific to proposed projects. Questions presented here focus more on issues of historic period use of the landscape due to the mercantile theme of the park and the high degree of ground disturbance that has lessened the chance to identify evidence of Native occupation. If additional evidence is found, then new questions can be formulated to address this important type of resource. Questions below are chronologically arranged and grouped by general theme. These topics are not prioritized for importance because by doing so would merely impart a bias based on particular research interests and prerogatives. The topics should be viewed as being of equal importance and should be expanded by other related and unrelated subject areas as research agendas change.

### Native American Occupation

Evidence of Native occupation has been identified in the form of a small deposit of shell and charcoal under the Narbonne House ell and lithic debitage from the rear of the Custom House/Public Stores. What is still unknown, however, is the nature and extent of occupation as well as the temporal affiliation. During what time periods was the SAMA area occupied and what was the nature of these occupations?

Several Native burials have been found in the Salem area. Did any portion of the park serve such a function for Native communities?

### Contact Period

Is there any evidence of early Contact Period occupation at SAMA associated with the sixteenth century development of the fishing industry?

Initial historic settlement commenced on the margins of Collins Cove. When settlement shifted to the south side of the peninsula, did any of the early inhabitants settle in the SAMA area?

What is the earliest evidence for European occupation in the park?

Seventeenth century occupations were identified by Snell (1977) and Friedlander et al. (1991) to have been present on the Custom House/Public Stores lot and the Hawkes House lot in addition to the Narbonne House lot on Essex Street. How are these occupations characterized and what do they reveal about the first major settlement phase of Salem prior to the development of the mercantile elite of the following eighteenth and nineteenth centuries?

### Eighteenth- and Nineteenth-Century Mercantile Industry

Is the emergence of the wealthy merchant class visible in the archaeological record, and if so, how is this characterized?

Is there any evidence for the presence of lower status occupants, either servants or slaves, who lived alongside of the developing upper class in the eighteenth or early nineteenth centuries in Salem as there were in other major ports?

The slackening of trade due to shifts to deeper water is historically documented. Such a change in fortune can have many ramifications to a merchant community. How did this shift affect those living in the SAMA area and is this reflected archaeologically?

What do the archaeological remains of wharf warehouses/storehouses tell us about the process of loading and unloading of goods from ships?

Does the method of warehouse construction change through time? Many details of the warehouse structures are known from documentary records including paintings and historic photographs. Archaeological investigations can help to pinpoint warehouse locations and provide data on construction methods. What is equally important is the potential of archaeological deposits to inform on the range of activities that took place in and around the warehouses that is not as well documented.

Is there evidence for warehouse related activities that is not a common component of the historic documentary record?

What kinds of changes in wharf construction technology occurred through time?

Is there evidence that corroborates or contradicts historically documented changes to the wharves?

The location of wharf warehouses on the water's edge suggests options for the disposal of refuse included dumping in the harbor, dumping on the wharf or carting away of refuse. What are the refuse disposal patterns in the confined eighteenth and nineteenth century warehouse contexts? Such questions would focus on archaeological deposits on/within the wharves as well as around their perimeters.

Does the arrival of federal regulations associated with customs duty payments in the early nineteenth century bring about any shifts in the social or economic makeup of the community that might be reflected archaeologically? An ultimate question is whether this presence enhanced the community or ended up as more of a burden.

Does the archaeological record suggest any particular or significant differences between merchant communities of Salem and other contemporary ports such as Boston, Portsmouth, Newport etc.? Broader questions such as this are generally addressed only after appropriate data has been collected. In this case, data from one or more

SAMA sites could contribute to addressing such questions.

Is there evidence for the presence of water craft buried in the made land south of Derby Street? Filled waterfront contexts often contain remains of abandoned watercraft that were incorporated into the fill. It is important to be aware of the possibility that undertakings requiring deep excavation in this portion of the park may encounter such resources.

#### Tenant Occupation at SAMA

Archaeological questions associated with investigation of tenant living are difficult to address because such settings are frequently multiethnic and individuals often practice a variety of professions. If documentary research can identify some of these variables then particular questions can be formulated. Initial questions should focus on presence of archaeological deposits that are associated with tenant life. The chance that such are present depends in part on refuse disposal practices that by the second half of the nineteenth century may have included collection and transport to municipal dumping areas.

Are there aspects of the archaeological record associated with tenant occupations that represent unique characteristics or signatures of tenant occupancy?

How do tenant populations living on the waterfront differ from tenant occupancy elsewhere in Salem?

Can differences in ethnicity of tenant populations be identified?

#### National Park Service Policies

Given the policy of the National Park System to remove practically all traces of unwanted structures on its property, do variations exist in the performance of this policy?

Archaeological excavation at several locations in the north half of the Park has found landscaping



fill while oral history from park personnel suggest some areas were stripped of topsoil. While the topography of the park north of Derby Street appears relatively unaltered, is there evidence that the lay of the land was significantly different in the past? This question addresses the long-term use of the landscape at SAMA to incorporate changes that may have occurred prior to NPS acquisition.

### **C. Recommendations to Further Identify and Evaluate Cultural Resources at SAMA**

The ability to address research questions such as those outlined above requires not only the presence of archaeological resources, but those with a known level of integrity. Accurate assessments of buried cultural resources at SAMA provide a dual purpose of defining the research potential of different areas within the park as well as an understanding of sensitivity for park management that is the ultimate goal of the SAIP and the O&A. Due to the extensive occupational history of the park and the presence of known and potential archaeological resources, a program of cultural resource identification is recommended as outlined below. Figures VII.1 - VII.3 at the end of this section depict ASMIS sites with high, medium, and low probability for intact archaeological resources.

#### Derby House Lot, Hawkes House Lot, Custom House/Public Stores Lot

Overview and Assessment results show that a number of structures in addition to presently standing structures were present on these lots prior to 1938. Demolition and moving of structures leaves open the question of preservation of foundation remains and deposits associated with occupation of the various structures. Such a lack of knowledge of potential archaeological resources can result in inadequate management and protection. To remedy this situation, archaeological intensive (locational) surveys should be considered on a case-by-case basis with attention to the nature of the undertaking and the level of knowledge of the area of potential adverse effect (e.g., expected resources, previous disturbances

etc.).

Archaeological identification surveys often consist of a program of 5 m (15 ft) interval shovel testing with provision for additional tests to explore anomalies or assist with stratigraphic characterization. Such a program may require modification, however, depending upon specific project needs. Areas identified to have little or no disturbance are hypothesized to maintain the greatest potential for resources associated with Native and Contact Period occupation. Areas identified as disturbed have lower potential for the presence of intact resources, but these areas should be carefully assessed for the level and period of disturbance since even disturbed contexts can yield important information.

#### Narbonne House Lot

A significant portion of the Narbonne House lot has been archeologically investigated. Findings from this work suggest the unexplored south and western portions of the lot are well preserved and retain high potential for the presence of intact archaeological resources. Avoidance of these areas should, therefore, be practiced to ensure their long-term preservation.

#### Tucker's Wharf, Derby Wharf, Hatch's Wharf, and Central Wharf

These waterfront contexts are unique for the fact that buildings and activity areas that become archaeological sites are located on a structure that is itself a site with a complicated history of construction and repair. Thus, two resource categories are associated with the wharves; 1) the wharf structures themselves, and 2) the buildings and deposits from activities that took place on the wharf surfaces. Extensive archaeological investigations have demonstrated that the internal structure of the wharves is relatively well preserved, with most disturbances present around their perimeters and within their surfaces. Excavations have also shown a high potential for the presence of warehouse and other structural remains. Although many wharf buildings were of temporary or insubstantial construction, especially

toward the latter nineteenth century, their ages of greater than 50 years makes these potentially eligible for listing on the NRHP and these are, therefore, considered to be potentially important cultural assets of the park.

Because a significant amount of archaeological work has been performed in the context of the wharves, and because of the unique nature of these resources that are relatively well documented historically, no specific archaeological investigations are recommended at this time. Intensive archaeological surveys are recommended on a case-by case basis in association with specific undertakings or research projects. Archaeological assessments should be included in the scopes of undertaking proposals, and should be timed to precede construction or coordinated along with construction efforts, especially if work below the depth of 5 ft is planned. Many details of wharf construction are known through historic and archaeological documentation. As a result, the depth of many archaeological deposits makes the utility of shovel tests inadequate for feature or deposit identification. Thus, archaeological investigations must be tailored to the needs of each undertaking.

The use of remote sensing techniques in the form of ground penetrating radar and resistivity was employed in some areas of the park in the past (Alterman et al. 1995) with varying levels of success. Given the past inconclusive and problematic results coupled with the complicated occupational/architectural history of many areas, and the high cost of performing this work, additional remote sensing surveys are not recommended.

#### **D. Recommendations for Future Undertakings**

Subsurface undertakings have the potential to disturb archaeological resources and therefore represent one of the greatest threats to the long-term preservation goals of the park. As such, it is imperative that planning for all proposed undertakings include archaeological assessment. Inclusion of such assessments at the planning

stage allows for early alternative recommendations if the potential for encountering buried resources is found to be high. The outcome is not only a savings in time, but also in project costs. Due to the extremely high density of known cultural remains coupled with areas of unknown potential, subsurface archaeological investigations will frequently be required even with alternative site recommendations. For small undertakings such as the digging of fence post holes, excavation can be performed by park personnel, but workers should be made aware of the potential for archaeological resources and an in-house form should be completed for each project that documents the undertaking and records the presence of observed cultural resources. If a potentially significant resource is encountered during such activities, then an archaeological assessment should be performed to either prevent or minimize impacts to the resource.

Undertakings that are larger in scope such as the creation of walkways and parking areas or the installation of utility lines should be handled by planning for archaeological assessment at the initial proposal stage. Those undertakings that have the potential to impact larger areas may well require formal archaeological investigations in advance of undertaking commencement. Such procedures were followed for the utility work conducted on Central and Derby Wharves.

#### **1. Worksite Safety**

Investigations associated with trench work must follow prescribed OSHA health and safety protocols for stepping back trench walls if deep excavations are to be entered by personnel. This is particularly important given the loose nature of the wharf fills. In addition, attention should be paid to the potential for hazardous substances such as fuel oil or other chemicals or compounds that might have leached into wharf or other soils from the many activities that have taken place in the area. If hazardous substances are suspected to be present prior to an undertaking, then work should be preceded by or a professional contamination evaluation. If hazards are suspected, dur-

ing the course of work, such activities should be stopped to avoid exposure and allow for a site evaluation.

## **2. Archaeological Qualifications and Requirements**

Archaeological assessments and/or investigations should be carried out under permit from the State Archaeologist. Archaeologists performing cultural resource investigations for proposed undertakings must meet required qualifications to carry out such work as specified by the State Archaeologist under 950 CMR 70 and any additional qualifications specified by the NPS Northeast Regional Archaeology Office. In addition all work must be formally reported as specified in 950 CMR 70.14.

## **3. Guidelines for the Treatment of Unmarked Human Burials**

The discovery of Native American burials close to the waterfront in the Palmcer Opint area of Salem suggests that human remains may be present at SAMA as well. The Massachusetts unmarked burial law (Mass General Laws Ch. 659, Acts of 1983) protects cemeteries and burial grounds by prohibiting disturbance. If skeletons are found during an undertaking or during preliminary archaeological investigations, work in the area must cease immediately. State mandated protocol (MGL Ch. 38, Sec. 6B, Ch 9, Sec. 27C) stipulates the local medical examiner must be contacted to inspect the burial. If it is determined to be more than 100 years old, the State Archaeologist is contacted (617-287-6859) to determine the burial's cultural association. If it is determined to be a Native American, then the Commission on Indian Affairs is to be notified. Decisions regarding the treatment of the burial will be made through consultation between the above parties and the NPS. It is preferred to leave burials in place and to protect them from further disturbance through proper land management.

## **4. Dissemination of Archaeological Findings**

Reports of archaeological investigations and dis-

covery of previously unknown sites should be shared with the office of the State Archaeologist so that state archaeological site files can be periodically updated.

## **E. Planned Undertakings at SAMA**

A number of currently planned undertakings have the potential to impact archaeological resources. Each is considered below.

### PMIS No. 106796: Provide Accessibility to Public Stores and Visitor Center Exhibits

The improvement of accessibility to the Public Stores may require the construction of a hand-capped access ramp. Excavation of holes for support posts definitely has the potential to impact subsurface cultural resources. This work should be preceded by archaeological investigations in the area of impact. In this case, excavation units could be completed in the precise locations of the ramp supports.

### PMIS No. 11903: Replace Bonded Warehouse and Narbonne-Hale House Fence.

This work requires the removal and replacement of existing deteriorated posts. This work maintains low potential to disturb cultural resources since existing holes will be reused. Nevertheless park personnel should be aware of the potential for archaeological remains and a record of any findings/observations should be made and retained for future reference.

### PMIS No. 13748: Install Fire Suppression Systems for Historic Structures

This work consists of interior installation that is unlikely to impact buried cultural resources. In the event that cellar or exterior water lines are installed or upgraded, then such work could have a significant impact on cultural resources. Thus, any exterior or subcellar floor work should be preceded by archaeological investigations. Archaeological monitoring of deep trenching such as that performed at the Longfellow NHS may also be necessary.

PMIS No. 17796: Restore Cultural Landacape-North Side

Yard and garden plantings are scheduled to be replaced with more appropriate examples in the area between the Hawkes and Derby houses. This work maintains the potential to disturb cultural resources, particularly if large or deep planting holes are necessary. Soil disturbance for shallow plantings should have little impact. Thus, archaeological investigations are necessary only in those areas of removal or installation of deep rooted plants or in areas where other subsurface work such as walk installation is planned.

PMIS No. 20759: Maintenance Dredging of Derby Wharf Basin

Maintenance of adequate water depths in Derby Wharf basin requires periodic dredging. Because this area has been dredged in the past (last in 1995), the chance of encountering significant cultural resources is low. Nevertheless, the possibility remains that some resources may be encountered if dredging extends beyond previously established bounds. Thus, dredge operators should be made aware of the potential presence of such resources and any that are encountered and found to be significant should be reported and turned over to park personnel.

PMIS No. 117496: Pedricks Warehouse: Provide Fire Protection and Mechanical System

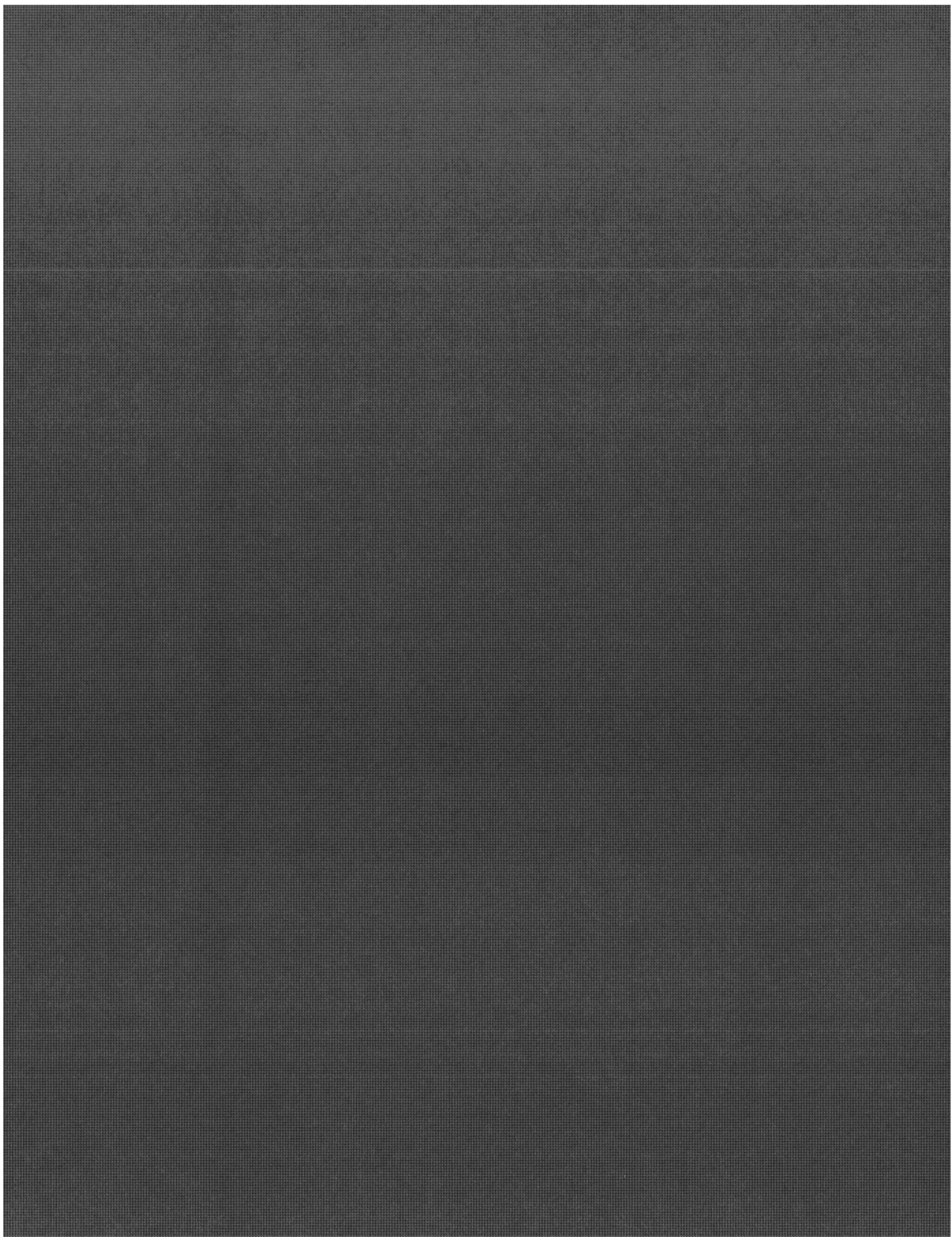
This work calls for the erection on Derby Wharf

of the eighteenth-century Pedricks Warehouse originally from Marblehead. The structure will be supported on pier footings that are expected to extend approximately six ft into the Derby Wharf fill. While the excavation for footers is expected to result in minimal impacts to the wharf, the area should nevertheless be assessed for the presence of cultural resources, specifically in the form of warehouse foundations and deposits associated with past warehouse use. Each footer location should be investigated to document aspects of wharf construction that may be adversely impacted. In addition, installation of utility lines maintains the potential to impact wharf fill sequences as well as foundation and other remains. The utility work, too, should be preceded by archaeological investigation of those areas slated to be disturbed by this undertaking.

PMIS No. 13745: Place Unsafe Overhead Utilities Underground and PMIS No. 9674: Replace Utility Lines

This work pertains primarily to lines on Derby Street. Installation in existing underground facilities will have no adverse effect, but if new trenches need to be excavated, then this work should be preceded by an archaeological assessment. Archaeological monitoring of deep trenching may also be necessary to record the potential presence of cultural resources including fill sequences present on the former waterfront.







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## APPENDIX A: Annotated Bibliography of Important Sources and Maps

Commonwealth of Massachusetts  
2001 1:5,000 Color Ortho-Imagery of Massachusetts, Tile #253918. Image available in MrSID format at [www.mass.gov/mgis/](http://www.mass.gov/mgis/).

*The orthophoto served as the current base map for standing structures on the SAMA property. The image was used to georeference the Amy Friedlander base maps for data input into the GIS.*

Denver Service Center  
1991 Utility Map of Salem Maritime National Historic Site, On file at SAMA archives.

*This is the most comprehensive modern map of the property, showing detailed plans of utilities, structures, sidewalks, fences, etc. After georeferencing this map to the 2001 orthophoto, it was the primary map used for digitizing the modern landscape of the SAMA property.*

Friedlander, Amy  
1991 Salem Maritime National Historic Site, Historical Research 1626-1990. Prepared for National Park Service, Denver Service Center - Eastern Team. Prepared by The Cultural Resource Group, Louis Berger and Associates, Inc.

*The reconstructed maps created for this report served as the base maps for all historic structures entered into the GIS. The series of historical base maps depict the construction and removal of all known structures on the SAMA property from the 17th through 20th centuries. Most maps were derived from Snell maps.*

Saunders, Jonathan P.  
1832 Map of Salem. On file at the Massachusetts Historical Commission.

*The map is a depiction of the City of Salem showing the road network, wharf boundaries, and*

*water ways. Central and Derby wharves are shown as is a much constricted South River with the Mill Pond. No information pertaining to structures is visible on the map.*

1795 Map of Salem. On file at the Massachusetts Historical Commission.

*This late eighteenth century map is a general depiction of the city's boundaries. Several wharves are visible as is the road network at the time. The South River is much wider. The map is not detailed and does not reveal any information pertaining to the locations of structures.*

1884 City of Salem, Massachusetts. On file at the Massachusetts Historical Commission.

*This is a detailed map of the Salem transportation network of roads and rail lines. Central, Hatch's, Derby, and Tuckers wharves are depicted. The only structure on the SAMA property depicted is the Custom House. The South River is almost completely filled in by this time. Although the map is not very detailed for structures it does list road names, and several buildings.*

1937 Derby Wharf National Historic Site Project, Utilities Layout Plan. On file at SAMA archives.

*This is a map compiled from existing utilities maps at the time the National Park Service acquired the property. The map depicts structures and known utility lines on the property. It was used in the GIS in order to track underground telephone and water lines that may have been abandoned or removed.*

1938 Central Heating Plant Schematic. On file at the SAMA archive.

*The map depicts the Custom House, Hawkes House, Derby House, and what was referred to as the Grog Shop. Locations of utility tunnels and the oil storage tank that was removed in 1993 from behind the Custom House are depicted. The*

*map was used in the GIS to track the locations of the oil lines, tank, and a potentially abandoned utility tunnel between Derby House and the Grog Shop.*