MHC Reconnaissance Survey Town Report

NEW BEDFORD

Report Date: 1981

Associated Regional Report: Southeast Massachusetts

Reconnaissance Survey Town Reports, produced for MHC's Statewide Reconnaissance Survey between 1979 and 1987, introduce the historical development of each of the Commonwealth's municipalities. Each report begins with an historic overview, a description of topography, and political boundaries. For the purposes of the survey, the historic period has been subdivided into seven periods: Contact (1500–1620), Plantation (1620–1675), Colonial (1675–1775), Federal (1775–1830), Early Industrial (1830-1870), Late Industrial (1870–1915), and Early Modern (1915–1940/55). Each report concludes with survey observations that evaluate the town's existing historic properties inventory and highlight significant historic buildings, settlement patterns, and present threats to these resources. A bibliography lists key secondary resources.

Town reports are designed for use together with a series of town maps that demarcate settlement patterns, transportation corridors and industrial sites for each historic period. These maps are in the form of color-coded, polyester overlays to the USGS topographic base map for each town on file and available for consultation at MHC. For further information on the organization and preparation of town reports, readers should contact MHC.

Users should keep in mind that these reports are now two decades or more old. The information they contain, including assessments of existing knowledge, planning recommendations, understanding of local development, and bibliographic references all date to the time they were written. In some cases, information on certain topics was not completed. No attempt has been made to update this information.

Electronic text was not available for digital capture, and as a result most of the reports have been scanned as PDF files. While all have been processed with optical character recognition, there will inevitably be some character recognition errors.

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MHC RECONNAISSANCE SURVEY REPORT

Date: November 1981 Community: New Bedford

I. TOPOGRAPHY

The city of New Bedford is a narrow strip bordered by the Acushnet River on the east and Clark's Cove on the south. The city is on a gradually ascending ridge from the river. Soils are generally sandy to gravelly.

II. POLITICAL BOUNDARIES

New Bedford was incorporated as a town on February 23, 1787, from part of Dartmouth. Part was established as Fairhaven in 1812. Annexed part of Dartmouth in 1845. New Bedford was designated a half shire town in 1880 and incorporated as a city in 1847. Annexed part of Acushnet in 1875 and part of Dartmouth in 1888.

III. HISTORIC OVERVIEW

New Bedford, unlike other Bristol County towns, was founded not on an agricultural base but rather as a result of its suitability as a harbor for the whaling industry; the first substantial settlement did not occur until 1764. By the time of the revolution the town had grown as a port and as a result suffered attack from British forces. Like other towns of Old Dartmouth, New Bedford had a large portion of the population who belonged to the Society of Friends. These individuals controlled the whaling industry during its early years and it was their philosophy that shaped to some extent the physical structure of the city. Although there was a great deal of wealth in the town during the Federal and early part of the Early Industrial periods, there was little differentiation of neighborhoods by income; it was not until a second industry developed in the town that high style and worker districts began to develop. The entry of Wamsutta Mills in 1849 resulted in the diversification of the city's industrial base. Contrary to popular belief, it was the establishment of the textile industry and the gradual decline of the whaling industry (and establishment of fisheries) that brought foreign born immigrants to the city. The Wamsutta Mills operated on the Rhode Island system, meaning that operatives were from the beginning primarily male so that the demand for worker housing increased as mill operations increased and worker neighborhoods developed in close proximity to the mills. (It should be noted that until the 1880s outside capital did not play a role in the development of the city, most of the early textile development being financed by the proceeds of the whaling industry.) Since the mills were first located on the north and then south ends of the city, the central portion remained middle and upper income residential until well into the 20th century. Late factory development also followed this pattern and the result has been worker

housing on the periphery of the city in the form of streetcar suburbs, development in response to extensions of the transit system. New Bedford's re-emergence as a fishing port coincides with the Portugese immigration in the late 18th and early 19th century; the strength of this population in the city has resulted in well defined Portugese neighborhoods. Although New Bedford is one of the few areas in southeastern Massachusetts to have suffered a declining population in the post World War II period, this decline is not readily noticeable on the landscape. Areas of the city have suffered from incomplete urban renewal efforts but there is a fine stock of turn of the century triple deckers in the city.

IV. CONTACT PERIOD (1500 - 1620)

A. Transportation Routes:

It appears that extensive urban growth in the southern two thirds of present New Bedford has obliterated a large portion of the area's original native trail network. The only documented native trail was one which extended south along Acushnet Avenue, County Street and Cove Road. This route provided access to the Achushnet River, New Bedford Harbor, Clark Cove and present Dartmouth. The second is reputed to have entailed Tarklin Road and probably Pleinville Road as a portion of the Rhode Island Path, a major native trail between Plymouth and Newport (Rhode Island).

B. Settlement Patterns:

The only archaeological evidence of native Contact period occupation in New Bedford was the reference to several native burials on the shores of the Acushnet River (presumably the western bank) (Ricketson 1858: 35-36). At least one burial dated to the Contact or Historic period. The virtual absence of Contact period archaeological evidence is more likely a reflection of the large number of unrecorded period sites destroyed during the 19th century and 20th century rather than evidence of limited native settlement. The area's rich riverine and marine resource base would have encouraged heavy native settlement. At the time of initial English settlement (1650s) in Old Dartmouth (Acushnet, Fairhaven, New Bedford, Dartmouth, Westport, portions of Little Compton and Tiverton, Rhode Island), a large native population was said to be present focusing on the area's three major rivers--Achushnet, Pascamanset, Westport. Coastal and riverine settlement was most likely heaviest during the late spring and summer months. The onset of cooler weather probably encouraged native movement to interior locations including north and west of the Acushnet River (e.g., Sassaquin Pond). It is doubtful native settlement took place in western New Bedford because of the presence of extensive marshland.

C. Subsistence Patterns:

The Acushnet River, New Bedford Harbor, Clark Cove and Buzzard's Bay were rich sources of fish, shellfish, birds and marine animals. Additional hunting and fishing probably was undertaken in the interior woodlands and the vicinity of Sassaquin Pond. Potential planting grounds were situated primarily along Clark Neck, the shore of the Acushnet River and a narrow strip of land paralleling Acushnet Avenue. European-Indian trade likely pre-dated the 1602 visit of Bartholomew Gosnold to the Old Dartmouth area (Round Hill, Dartmouth; Gooseberry Neck, Westport). New Bedford possessed an expansive harbor and had a ready accessibility to the Narragansett Bay, an area of known 16th century European-Indian contact (e.g., Verrazano, 1524).

D. Observations:

New Bedford was part of a densely populated region of Contact Period native settlement which extended from Buzzard's Bay to Narragansett Bay. The political boundaries of the Old Dartmouth area natives appear to be defined by river drainages with the New Bedford, Fairhaven and Achushnet natives labelled the Acushnets. The Acushnets along with the nearby Apponagansetts and Acoaxets (Dartmouth and Westport, respectively) fell within the domain of the Pokanokets (Wampanoags) centered in Mt. Hope, Rhode Island. Probably the only area remaining vestiges of Contact Period settlement would be the moderately developed Sassaquin Pond area and the land south of the pond.

V. FIRST SETTLEMENT PERIOD (1620 - 1675)

A. Transportation Routes:

English settlers probably improved and utilized the existing native trail network. The Acushnet Avenue/County Street/Cove Road trail was probably established as a primary north-south route ultimately providing access to the pre-war settlement in present Dartmouth (Apponagansett Bay).

B. Population:

The available sources failed to provide specific figures for the New Bedford area's native and colonial population. As mentioned earlier, a large native population inhabited Old Dartmouth in the mid 17th century In 1671, 40-50 natives living "near or in the town of (Old) Dartmouth" stated their obedience to the English (Hurd 1883: 50). The New Bedford area apparently was inhabited by no more than one or two settlers.

C. Settlement Patterns:

The area's native population congregated along the Acushnet River. The location(s) of the colonial population is unknown. The nearest pre-war civic and religious facilities were situated in present Dartmouth (Russells Mills). Here, the meetings were held in private homes since the settlement lacked permanent facilities.

D. Economic Base:

The available sources failed to adequately document native or colonial economies. The native population probably retained their traditional subsistence economy with an increased emphasis on Anglo-Indian trade. The small colonial population likely focused on subsistence agriculture and fishing. A large portion of the New Bedford area was probably utilized as grazing and crop land by the area's absentee landholders.

E. Observations:

Existing sources virtually ignore the post-1620 native community despite the presence of a considerable native population during the First Settlement Period. Future research should be devoted to clarifying pre-1675 native settlement. The New Bedford area during this period lacked a discrete colonial community. It functioned primarily as a resource base for the more heavily settled portions of Old Dartmouth.

IV. COLONIAL PERIOD (1675 - 1775)

A. Transportation Routes:

B. Population:

The only reference to New Bedford natives was made in a local history stating that in 1698 there were 40 Christian natives from "Assameekg, Cokesit, Acushnet, and Assawampset" (Ricketson 1858: 315).

The figures for the white population are also fragmentary. At the outbreak of King Philip's War, Old Dartmouth (included New Bedford until 1787) consisted of 30 homes. By 1765, Old Dartmouth had a population of 4,506 residents. This figure increased 50% to 6,773 residents in 1776. At the latter date, New Bedford had 500 residents (18.5% of the Old Dartmouth total). As with all of Old Dartmouth, a large portion of New Bedford's first settlers were Quakers who originally were residents of Portsmouth, Rhode Island, Plymouth and Taunton.

C. Settlement Pattern:

A small, discrete native population remained in New Bedford throughout the 18th century and possibly into the early 19th century. Fish Island may have been used as a holding area for Saconnet Indians captured by Benjamin Church during King Philip's War. A number of natives were living in "huts" near Purchase Street,

probably between the early and late 18th century (Ricketson 1858: 190). All of these natives succumbed to an epidemic (date?). Several native homes probably dating to the second half of the 18th century were situated in the "Allen Woods" near the corner of County and Robeson Streets (Ibid. 191-92). Further south, post-1675 native "clam bakes" were held at the "Smoking Rocks" near Potomska Mills (Old Dartmouth Historical Society 1934: 3). A native burial ground in use prior to and after the Revolution was located on Prospect Hill at the site of the "Merchants Bank" and Hamilton Street (Ibid.).

It is unclear how much damage the New Bedford area suffered during King Philip's War. Only two of the thirty homes present in Old Dartmouth in c. 1675 survived the war. The first post-war settlement probably took place shortly after termination of Anglo-Indian hostilities. Colonial settlement until the 1760s was scattered, occurring in an area demarcated by Tarkiln Road and the tip of Clark Neck to the north and south and the western bank of the Acushnet River to slightly west of Acushnet Avenue, and County Street. This location afforded these residents access to extensive agricultural land, riverine and marine resources and transportation routes (Acushnet River, Buzzard's Bay). The 1760s signalled the rapid development of a residential/commercial node (Bedford village) centered on the waterfront along Water and the eastern third of Union Street. The New Bedford area, however, continued to rely on other sections of Old Dartmouth for civic/religious facilities since it lacked its own. Local residents attended town meetings in present North Dartmouth. Quaker (2) and Congregational (1) meetinghouses were available in present Dartmouth and Fairhaven.

D. Economic Base:

The only discussion of the post-war native economy was a reference to native clamming on the shore of New Bedford Harbor during this period (Ricketson 1858: 190).

The colonial community retained a strong agricultural base. The mid-18th century witnessed the ascendancy of marine based activities as an increasingly important part of the area's economy. The focal point of these activities was situated on New Bedford's waterfront between Fish Island and the present site of Potomska Mills. This area was the scene of an extensive import/export trade, whaling and ship-building. The first local whaler (owned by Joseph Russell, important figure in New Bedford maritime commerce) shipped out of New Bedford in c. 1755. By 1775, the whaling fleet had grown to 40-50 vessels ranging as far as the Gulf of Mexico and South America (Ricketson 1858:59). Jospeh Russell erected a try-house (whale rendering) at the foot of Centre Street (near State Pier) (Hutt 1924: II, 515) and a spermiceti candle works near the junction of Front and Centre Streets prior to 1775 (Ricketson 1858: 77). Two pre-1775 ropewalks were situated near the waterfront probably on both sides of Allen Street. Formal shipbuilding was initiated with the construction of the "Dartmouth" in c. 1767. Commencing in the 1760s, local and

foreign merchantmen arrived and departed with local goods and items from England, the West Indies and the southern colonies.

Mill operations were limited probably because of the New Bedford area's sparse number of potential mill streams. The ever present Joseph Russell constructed a pre-1775 grist mill at the junction of County and Union Streets (Old Dartmouth Historical Society 1934: 29). Two possible pre-1775 wind mills were built slightly west of the junction of County and Union Streets and probably in the vicinity of the junction of County and North Streets (immediately east)(New Bedford Map, 1795).

E. Architecture:

Residential: Extensive settlement at New Bedford did not commence until the 1760s, when whaling and shipbuilding first began to be active. As a result of the burning of the town by the British in 1778, nothing of the Colonial period is known to survive in the central business area. Although no Colonial period structures are recorded and none were observed elsewhere, potential surviving structures or fragments thereof are possible in outlying areas, particularly in the northern half of town, along Acushnet Avenue.

VII. FEDERAL PERIOD (1775 - 1830)

A. Transportation Routes:

Improvement of existing colonial roads, expansion of waterfront grid. Acushnet Avenue (Route 18) improved as part of New Bedford/Taunton/South Boston Turnpike. First Fairhaven-New Bedford Bridge constructed across Acushnet River 1798.

B. Population:

Population figures unavailable prior to incorporation in 1787. Slow increase from 1790 to 1810, slight decline between 1810-20 due to incorporation of Fairhaven in 1812, then increase to the end of the period.

C. Settlement:

Early settlement, residential, commercial and whaling oriented, occurred east of County Street with Union Street acting as the principle east-west access. Although there was an early isolation of whaling oriented industry along the waterfront there was little differentiation of residential districts occurring during this period. There is some indication of a high style residential district along Union Street during the late 18th century, but at this time there is little to substantiate this information.

D. Economic Base:

Whale fishery was not only the dominant and virtually sole industry in New Bedford throughout this period, but it was also largely responsible for the establishment of the town and the great wealth of

many of its residents. As a maritime occupation and the town's single industry, it also left the town unusually vulnerable to wartime restraints of trade.

The earliest residents in what became the town center were shipwrights and other mechanics connected with the business, begun in 1764 by Joseph Russell (1719-1804), great great grandson of the founder of Russell's Mills (Dartmouth), Ralph Russell. The village's earliest shipyard was established c. 1760 by a Pembroke shipwright J. Louden. With the arrival of Joseph Rotch (1704-1784) from Nantucket in 1765, both capital and expertise were introduced into the New Bedford whale fishery. By 1775, the whaling fleet included 50 vessels and the village sported a rope-walk, spermaceti plant, distillery, and shipyard.

During the war, although the Acushnet River became a haven for privateers, the whale business was destitute. Rotch returned to Nantucket, and the destruction of the town in September 1778 by a British fleet added to the town's misfortunes. By 1804 the town had recovered something of its pre-war prosperity, only to suffer a few years later the effects of the Embargo and the War of 1812, which again ruined many merchants. The war also became a major source of dispute with the neighboring village of Fairhaven, whose largely agrarian population voted solidly for the Republican Madison in the 1812 election. New Bedford votes were cast for Clinton and peace (399 to 13), and the two towns parted company the same year.

At the conclusion of the war (and for the next 40 years), the whale fishery advanced "with wonderful success." By 1820 New Bedford had taken the lead in whaling over Nantucket, and by 1832 129 ships and barks (three times the number 30 years before) were engaged on whaling. The same period saw numerous ancillary businesses established including 10 spermaceti candleworks, two ropewalks (though as late as 1832 more than half the cordage used still came from Plymouth), two brass and copper foundries (pumps, kettles, and ships bells for use on the whalemen), and a manufactory of Prussian blue.

E. Architecture:

Residential: The earliest houses surviving in New Bedford date from the Federal period. These are comparatively few in number, yet they exhibit a sense of the town's incipient urbanity, with narrow sidehall houseplans predominating. Unlike other towns in the Southeastern Massachusetts region, New Bedford seems never to have adopted the otherwise almost universal center chimney Cape-type cottage. Instead, four-bay (three-quarter plan) and three-bay (half plan) cottages and houses, most with raised basements and interior chimneys, were built in close proximity to each other

in a tight grid street pattern. While no more than a dozen Federal houses were observed, most often they survive in clusters of two or more with most examples observed located between Union and North Streets. Of the houses recorded, no examples dating from the 18th century were cited, suggesting that most period houses date from the turn of the century and later. Of these, most have well-developed Federal detailing, consisting in general of a pedimented entrance surround with semicircular fanlight and pilasters and window surrounds with splayed lintels. More substantial, fully developed Federal houses with five-bay facades and end or interior double chimneys apparently were not constructed in any numbers before the 'teens and 1820s. Among the examples noted is the Benjamin Rodman house (1820) on North Second Street, a double pile, end chimney, two-story stone house with very simple Federal detailing consisting primarily of a round-arched recessed entrance.

Institutional: With the town's incorporation in 1787, the first independent institutions began to form. The earliest Friends' meeting had been the congregation founded in 1725 at Head of Westport; a Society of Friends was established at New Bedford in 1772 with a meetinghouse built on Spring Street in 1785. The 1822 two-story brick double entrance Friends' Meeting House on Spring Street is a particularly noteworthy survivor. The first Congregational parish in New Bedford was organized in 1795, with a meetinghouse built between 1795-97. The number of churches established in the town increased steadily through the period with the Third Parish (North Church) founded in 1807, First Baptist founded in 1813, County Street Methodist (1820), North Christian (1807), Middle Street Christian (1828), Saint Lawrence Roman Catholic (1820), and Seaman's Bethel (1830) all established in the period. Almost all of these congregations built churches during the period, but only one of the buildings is known to survive (see below). The most ambitious of the churches built was probably the North Congregational, which in 1817 built a "handsomely steepled" 48' x 60' church on Elm Street with a 7' deep portico with four columns, apparently in the fully developed late Federal mode. Portions of an earlier smaller meetinghouse (1814) of the North Congregational still stand on William Street. Other forms of institutional building (such as schools) are not recorded for the period nor were they observed. It is probable that some schoolhouses survive in residential use.

Commercial: Several banks were incorporated during the Federal period as New Bedford's commercial importance grew. Among these were the National Bank of Commerce (1803), Merchant's Bank (1825), and New Bedford Institution for Savings (1825). No structures related to these enterprises are known to survive.

Industrial: A few buildings related to the early whaling and shipbuilding industries of New Bedford survive. These include the Rodman Candleworks (1810), a well detailed three-story stone structure of rubble construction with corner quoins, and a three-story brick warehouse of 1820 on Centre Street.

VIII. EARLY INDUSTRIAL (1830 - 1870)

A. Transportation Routes:

Extension of existing street grid. New Bedford Taunton Railroad completed in 1840. New York-New Bedford ferries in operation during this period as well as ferries to Martha's Vineyard and Nantucket.

B. Population:

Steady increase in population to 1860 then slight decline to end of period. Foreign born population approximately 14% of total in 1855, majority Irish, in 1860 the Black population totaled 1,515.

C. Settlement:

By mid period, commercial and banking establishments moved westward from their original Water Street locations and a central business district developed bounded by Spring Street on the south, Sixth Street on the west, Elm Street on the north and Second Street on the east. The construction of the Wamsutta Mills in the North End resulted in the development of a district of worker housing bounded by Acushnet Ave. on the west, Logan Street on the south and Kenyon Street on the north. The Pearl Street depot appears to have spurred other development; by the end of the period the city extended as far north as Pearl Street and as far west as Chancery. The Fayal (South End) extended south to Grinnell Street. Also during this period some high style development occurred in the North in the form of estates in the area bounded by Kenyon, Shawmut, Parker and County Streets. Another more compact high style district began to develop along Hawthorn Street during this period. Manufacturing and whaling interests remained confined to the waterfront.

D. Economic Base:

The town's middle decade provided the turning point for a wide variety of New Bedford interests--most notably the sharp decline in whaling and the initiation of the manufacture of fine cotton textiles.

From its start in the Federal period, whalemen continued to bring back ever-increasing quantities of whale and sperm oil, both for the nation's growing appetite for illuminating fluid and to satisfy the lubrication needs of an increasing number and variety of machines. By 1857, nearly half of the entire U.S. oil importation came through New Bedford. Whalers expanded their search into new waters throughout the 1830s and '40s. In 1843 the first bowhead whales (source of baleen) were taken in the Northern Pacific. Five years later, the first ship passed through the Bering Straits, marking the beginning of Arctic whaling.

Although the success of the whale fishery generated large amounts of capital, merchants on the whole were unwilling to venture into new fields. Although the New Bedford and Taunton Railroad were built in

1839-40, most New Bedford industries remained firmly tied to whaling --like the New Bedford Cordage Co., which Ricketson and Rotch established in 1842 to provide their fleets. Thus, despite the fact that by 1850 nearby Fall River had 100,000 spindles in operation, most New Bedford merchants showed a critical unwillingness to invest in the first local textile enterprise, the New Bedford Steam Cotton Mill, in 1846, though two prominent whaling men, Rotch and Rodmen, were among its incorporators. (Curiously, a little-noticed predecessor to Rotch's 1846 steam mill is reported by the 1822 Commercial Directory [of the U.S.] which noted that "Rotch & Eddy have a cotton factory in New Bedford, which contains 600 spindles.) Before its final move to Shirley, Massachusetts, an initial attempt was made to move the mill to Georgia, where steam cotton mills specializing in coarse goods were then gaining ground.

Georgia also played a role in the formation of the Wamsutta Mill. During the 1840s, Dwight Perry of Fairhaven owned a small cotton mill in the south. When one of his employees, Thomas Bennett, Jr., wanted to build a small mill of his own, he initially thought of Georgia. It was only on the recommendation of another investor, Congressman Joseph Grinnell (who feared the consequences of the Mexican War in the South) that the mill was located in New Bedford. Partially on the recommendation of mill engineer David Whitman of Warwick, Rhode Island, the Wamsutta--and the mills which later followed it--departed from Fall River practice (producing print cloths and coarse fabrics) and made a reputation on fine goods only (chiefly shirtings). Initially, the Wamsutta's organizers encountered many of the same obstacles the earlier mill had found: in addition to the unwillingness of whaling money to venture into a new field (when construction began, the company had been able to raise only half the capital allowed by the act), mechanics to run the mill were staunchly opposed to the disciplined labor and longer mill hours than was afforded by a life at sea. In addition, virtually everything connected with the mill, except building stone, had to be imported from outside the city. Despite these obstacles, the Wamsutta was an immediate success. Because of the continued prosperity of the whaling business, however, it was twenty years before a second textile company would be formed, and thirty before the real boom in textile mill building took place.

In the meantime, whaling had reached its peak. In 1857, 329 whaling ships listed New Bedford as their home port. The nationwide depression that began that same year had a devastating effect on New Bedford merchants. The enormous quantities of whale oil soon overstocked a market much less inclined to buy. Prices fell and disaster struck many firms. Sperm oil, which sold for $1.72 per barrel in 1855, sold for $1.21 in 1858. Of the 68 whalers arriving in New Bedford in 1858, 44 made losing voyages. Any possible recovery of the business was further compromised by the discovery of petroleum in Pennsylvania in 1859, in the long run virtually eliminating the demand for sperm and whale oil as illuminants. Because of its refining capabilities, New Bedford played a pioneer role in the development of kerosene production in the state, even before the discovery of petroleum. In 1858, Abraham and Weston Howland became the first refiners in New Bedford to

produce kerosene ("coal oil") from English coal, and in 1860 Weston Howland placed on the market the first refined burning oil distilled from Pennsylvania oil, using a pioneer refinery on Fish Island.

By 1865 an intense depression had set into the whaling business. Large cargoes of oil were stored for the market that never came, and each vessel returning increased the depression. In addition, the whaling fleet was badly decimated by rebel cruisers during the war. Whaling capital had begun to move to the west coast, where the Arctic fleet was increasingly based. For while sperm and whale oil had fallen precipitously in the period 1855-58, whale bone--the Bowhead's baleen--had risen more than 100 percent, reaching a value of 97 cents per pound. (By 1891, as a natural plastic with great strength, before the advent of spring steel, baleen was valued at $6.50 per pound.)

As early as 1861, agitation had begun for a municipal water system as a means of attracting industry. The city's first water works, utilizing a gravity conduit from the Ansel White Dam on the Acushnet River (town of Acushnet) and designed by nationally prominent engineer William J. McAlpine (1812-1890), was constructed 1866-69, making possible New Bedford's expansion in textile manufacture.

E. Architecture:

Residential: New Bedford experienced tremendous growth during the Early Industrial period as the whaling industry grew. Whaling prosperity resulted in the construction of a great number of houses in a wide range of types and sizes, from tenements and workers' cottages to sophisticated mansions by major American architects. By the end of the period, the central portion of New Bedford's street grid, from Parker Street south to Allen Street and west from the Harbor to Park Street, had been developed with densely settled residential neighborhoods. Several elite neighborhoods developed, one at the crest of the hill between Union and Arnold Streets along and west of County Street, with others along County Street east and west of Union Street and along Sixth Street between Bedford and Union Streets. In general, elite development followed a linear pattern of one block's depth along major streets. Estate districts of houses set on large lots (such as that at the crest of the hill above the Central Business District) retained open space through the end of the Early Modern period. Clusters of highstyle houses are rare, with one such neighborhood observed at the intersection of Dartmouth and Allen Streets. Stylish houses outlying the Central Business District were observed at Hazelwood Park on Clark Cove. Lower slopes of the hill developed with workers and suburban districts, with such housing concentrated north and south of the Central Business District.

Stylistically, many of New Bedford's Early Industrial structures are conservative. The earliest highstyle Greek Revival houses built in the city are double pile brick structures with linked parapet end chimneys and modified Federal details, such as splayed lintels, tri-partite windows above a center entrance, thermal windows in the gable and freestanding entrance porticos. Even the later Greek Revival houses of the 1830s and '40s retain the four-square end chimney double pile

plan of the Federal period while incorporating popular regional features of the Greek Revival such as the monumental portico and classical attic. Several of the city's outstanding Greek Revival houses are by Providence architect, Russell Warren. For more modest housing, the sidehall plan was nearly universal, although a number of broad gable (gable end to street) five bay, center entrance houses were also built. Also popular and relatively common was a sidehall plan four bay house type, with the entrance located in either of the interior two bays. For modest-sized housing (both middle and working class), frame construction and very simple detailing prevail; splayed lintels, pedimented gable ends and entrances with side and transom lights are the most common decorative features. As most houses have raised basements, simple stoops are also common. The most significant modest buildings in the Greek Revival style are very early tenement blocks, apparently intended for two-family use; these houses, which have identical fenestration patterns on both first and second floors, were built in some numbers throughout the period and appear to date in the earliest instances from the 1830s.

In the 1840s, a number of outstanding Gothic Revival houses were built in New Bedford, the most notable of these being designs, such as that for the William J. Rotch house (1844), by A. J. Davis. Although a number of well-preserved examples survive with original finish, such as flush-board or board and batten siding and carved bargeboards, the Gothic Revival style, with its extensive, cross-gabled plan, was generally ill-suited to the tight lot configurations which prevail in New Bedford; therefore most Gothic Revival houses are more substantial houses on larger lots; middle and working class housing retained the sidehall plan with Greek Revival and, later, Italianate detailing.

In the 1850s, the Italianate style became standard for most residential construction. In general, large houses tend to retain the standard four-square, end chimney plan common since the Federal period; however, cross-gabled villa-style Italianate houses with asymmetrical plans are also common. Detailing on New Bedford's Italianate mansions is lavish and up-to-date, with wide eaves, elaborately formed brackets and drip moldings, rustication, quoins and ornate cupolas surviving in good condition on many fine houses. Cupolas, a very popular feature on New Bedford houses from the Federal through the Late Industrial period, are especially notable on the city's Italianate houses. In view of the city's prosperity and general stylishness, it seems likely that mansard roofs were introduced as early as the late 1850s and that they became common in the 1860s for many High Victorian Italianate designs.

Institutional: At least fourteen new churches were organized in New Bedford in the Early Industrial period; these reflect the diverse population of the city during the period with at least two

African Methodist Episcopal parishes, a Seaman's Bethel, and several Christian, Methodist Episcopal, Baptist and Episcopal parishes in addition to the Congregational and Friends societies which were the city's first ecclesiastical organizations. Of the churches constructed in the period, the Seaman's Bethel (1831; 45' x 40'), a one-and-a-half story Greek Revival building with a projecting square tower on the facade; the tower, like many Greek Revival cupolas in New Bedford, has canted corners. The First Unitarian church (1838, A. J. Davis) on Union Street is an important early Gothic Revival nave plan design with a central square buttressed tower with entry, buttressed towers at the corners and crenellations following the roofline; while it retains a traditional center-entered plan, the granite church exhibits well developed Gothic Revival details. Other surviving churches of the period are the Lund's Corner Congregational (1867), a frame Gothic Revival building with a central square entrance tower on the facade, and the South Christian Chapel (1851-2), a simple two-story double entrance Greek Revival building. In addition to churches, various governmental structures were also built in the period. These include the Customs House (1830-36, Robert Mills), the Free Library (1837, Russell Warren), both granite Greek Revival buildings with monumental porticos, the New Bedford City Hall (1856-7, Solomon K. Eaton; remodelled 1885, 1906). Also surviving from the period is a very early fire station (Fire Station #4, 1867) on South Sixth Street; the building is two stories, of brick, with a hip roof and central square tower and double garage bays.

Commercial: A number of imposing commercial buildings of the period still stand. The most impressive of these are the bank buildings which were built along the waterfront, among them the Merchant's Bank (1833, Russell Warren), a two-story brick building with a full Ionic portico with pediment, the New Bedford Institution for Savings (1853, Russell Warren), a two-story transitional Greek/Renaissance Revival building with brownstone facing, the Masonic Building (1861), a three-story brick Renaissance Revival block, and a number of more utilitarian brick warehouse buildings along the waterfront.

Industrial: Several early mills of the period still stand, among them portions of the Wamsutta Mills (1847) and the New Bedford Foundry (1856), both utilitarian buildings of brick and stone, three and four stories in height with gable roofs and simple massing based on Federal proportions; the Wamsutta Mills had stepped end gable parapets and a corbelled Romanesque Revival stair tower originally. Other important industrial construction included the first buildings of the New Bedford Water Works (established 1868), the most stylish of which was the High Victorian Gothic Engine House (1869), a hip roofed stone building with a mansard roofed tower and polychromed Moorish arches, demolished in 1974.

IX. LATE INDUSTRIAL PERIOD (1870 - 1915)

A. Transportation Routes:

New Bedford and Fairhaven Street Railway began horsepower operations in 1872. Acushnet Street Railway ran horsecars beginning in 1885, the two consolidated in 1887. During this period there also was extensive expansion of the city's street grid. New Bedford, Middleboro and Brockton

Street Railway opened in 1899, New Bedford and Fall River were connected by the Watuppa line of the Old Colony Railroad in 1872.

B. Population:

Accelerated population growth during the period particularly between 1880 and 1915. Foreign born population 31% in 1885 goes to 44% of the total in 1915. Portugese population increases by almost 900% between 1885 and 1915 while total population more than trebled. St. John the Baptist Catholic Church (Portugese) organized in 1875 (?) in the Fayal (South End) supposed to have been the first Portugese Church in the Country.

C. Settlement:

This period was one of extensive development, both residential and industrial. Industrial development occurred northward along the waterfront and south at Clark's Cove. Residential development occurred along Trolley lines extending south on Clark's Point, southwest to the Dartmouth Border, west as far as Rockdale south of Kempton, and north to Brooklawn Park and Pine Grove Cemetery. The bulk of the new residential districts consisted of workers' housing with scattered middle class districts. Recreation areas at Woodlawn Grove at Clark's Point, The Pavillion at Clark's Cove and Riverview Park on Nash Street created by the Street Railways.

D. Economic Base:

In 1870 New Bedford still had only one cotton mill. By the end of the period, the city boasted of 33 large mill complexes and had become the nation's leading manufacturing city for fine cotton textiles.

A key factor in this development was the new waterworks.

> The prosperity of the city [wrote historian Ellis in 1893] is largely due to its abundant and cheap water supply. The multitude of cotton mills and various other factories that border our river front and lower streets have sought this city largely because of the water supply. [Ellis, p.373.]

This dependence on city water is heightened by contrast with other textile cities--Lowell, Lawrence, Fall River, etc.--all of whose textile mills could tap large rivers or lakes for fresh water. In New Bedford, all the textile mills except the Wamsutta required city water, and in vast quantities. (As a result the large number of mills constructed in the 1880s and '90s wore out the new system after only thirty years of use. The Acushnet River supply was replaced by the new Lake Quittacas supply [see Rochester, MA in 1899.] Another result of this lack of independent sources of water was that, unlike other cities, there was practically no bleaching or dyeing of fabrics done within the city due to the great amounts of fresh water required. Hence the establishment by New Bedford interests of the Mount Hope Finishing Co. at North Dighton.

In 1870, the year after the opening of the water works, the Wamsutta erected its fourth mill (and now the oldest building in the complex), installing a Corliss engine which was then the largest stationary steam engine in the world. The mill was followed a year later by the Potomska, which like the Wamsutta, was immediately successful. The 1870s saw several improvements in city services including the institution of horse railways and, in 1875, the opening of a rail connection to Fall River. Not until 1882, however, were additional mills built, and then with a rush that was echoed by other New England cities, three new mills were built. Between 1880 and 1899, fourteen new cotton mill complexes were built with a total original capitalization of over $6 million. By 1892, New Bedford was third in the number of spindles in operation in the country, exceeded only by Fall River and Lowell.

The whaling industry, despite the decline in demand for sperm and whale oil, was not dead. The steadily rising price of baleen kept a substantial fleet active, though the loss of 33 ships abandoned in the Arctic in 1871 was a significant factor in the rising cost of marine insurance. In 1880 the first steam whaler, the Mary & Helen, made her debut, with marked success in the Arctic. Much of this business came to a sudden end about 1905 when the introduction of spring steel killed the market for baleen almost overnight. About the same time, the harbor saw a new industry develop--the commercial fishing fleet.

Other industries were also introduced in this period including Stephen A. Morse's twist drill factory (Morse had moved to the city from East Bridgewater in 1865 on receiving the twist drill patent); and the Mount Washington Glass Works, which relocated from South Boston in 1869 into buildings of the short-lived New Bedford Glass Co. (1861). The Pairpoint Mfg. Co., which located next to the glass works in 1880, made a successful business catering to big department stores with staple and fancy articles in plate. The Taunton & New Bedford Copper Co. was originally established as a major supplier of sheathing for ships' bottoms.

E. Architecture:

Residential: Residential construction continued at a pace equal to or exceeding that of the previous period: by the end of the period, New Bedford's street grid had expanded to nearly its present configurations with dense residential development from Tarklin Hill in the north to Hazelwood Park in the south and from the Harbor west to Rockdale Avenue. The most dramatic areas of new construction occurred in the northern half of the city along Acushnet Avenue and Ashley Boulevard north of Coggeshall Street, in the western section of the city west of Park Street and in the southern part of the city south of Allen Street; in established neighborhoods at the center of the city and along County Street, infill occurred with new construction further consolidating elite suburban districts.

Taste for the High Victorian Italianate remained strong through the 1870s, with large, four-square ornately embellished houses built in some numbers in established neighborhoods; in the 1870s, however, mansard roofs became the preferred roof form and hip roofs were used less often. Gable-roofed sidehall plan Italianate houses were built along the lower slopes of established elite neighborhoods and in the western half of town, with double houses and two family houses in the Italianate style built in nearly equal numbers in many of the same locations. Two-family houses remained basically unchanged through the 1880s, with the sidehall two-and-a-half story Italianate two-family house form gradually beginning to reflect the advent of the Queen Anne style by the end of the '80s.

While a few Stick Style houses were observed, by the mid-1880s, most large houses being built had begun to reflect the introduction of the historic revival styles, with Shingle Style, Queen Anne and Colonial Revival houses built in some numbers, particularly along County Road and west of the Central Business District. Many of these are very elaborately detailed, most are probably architect-designed (one active local architect was Nathaniel C. Smith) and a few exhibit tendencies to Mannerism. Like New Bedford's early and mid-19th century houses, fragile wooden embellishment has generally survived well. The overall quality of New Bedford's late 19th century residential architecture is reflected in the significant number of smaller houses, in the Shingle and Colonial Revival styles especially, which exhibit well integrated period design.

The most significant new building activity of the period, however, was the construction of a large number of three-deckers beginning in the 1890s and continuing through the end of the period. Most of these are in the Queen Anne style, with hip roofs and three-story polygonal bays with pediments opposite a triple tier of porches, often recessed. Large districts of such workers' housing were constructed in the northern and southern extremities of the town, along Cove Street in the south and Acushnet Avenue in the north. In some neighborhoods, three-deckers were built along the major thoroughfares with smaller Colonial Revival and Craftsman style two family houses located on the cross streets behind. After the turn of the century, the neighborhoods on Clark's Point developed in that fashion with three-deckers fronting the major road (Brock Avenue) and two family houses behind. The other significant residential innovation of the period was the construction of well detailed three and four story masonry apartment blocks on the fringes of the elite residential districts near the Central Business District; masonry apartment blocks are extremely uncommon in the region, most cities of which never developed sufficient urban density to support such housing.

Institutional: The greatest proportion of institutional buildings constructed in the Late Industrial period were municipal buildings, specifically schools and fire stations. All of these are masonry structures, most of red brick, in Renaissance and Colonial Revival

styles. Most of the schools follow the standard early 20th century form consisting of a hip roofed two story block on a raised basement; often, hip roof cross gables articulate the end bays. New Bedford's Fire Stations are especially notable for their excellent state of preservation: many stations retain their original trim, including garage bays with wooden doors, often removed for use with more modern equipment. Also built in the period were several county-related buildings (Registry of Deeds, Samuel C. Hunt, 1908-10; Third District Court, 1913), the New Bedford Textile School (Nathaniel C. Smith, 1898), a monumental masonry Georgian Revival complex consisting of a series of three connected blocks, the neoclassical Post Office (Oscar Wenderoth, 1915) as well as a number of churches, the most outstanding of which include the A.M.E. Bethel, a restrained stucco neoclassical building (c. 1910), Grace Episcopal Church (1881) and Saint Anthony of Padua (Joseph Venne, 1903-10), a massive stone Romanesque Revival church on Acushnet Avenue designed by a Montreal architect for a French-Canadian parish. The National Guard Armory (1904), a crenellated Gothic Revival granite building, was also built in the period. Both the Bristol County House of Corrections (1829) and the City Hall (1856) were remodelled during the period (1895; 1885 and 1906).

Commercial: Most of the buildings standing in the Central Business District were constructed in the Late Industrial period. Most of these are four and five story masonry blocks dating from the 1890s and early 20th century. Although a number have been resided, many well detailed Georgian Revival, Renaissance Revival and Beaux Arts classical buildings are preserved in good condition. Among the commercial buildings in the business district are buildings by Charles Brigham (New Bedford Institution for Savings, 1897) and Willard Sears (New Bedford Five Cents Savings, 1891), both Boston architects, as well as buildings by local architects such as S. C. Hunt, Louis E. Destremps, and Nathaniel C. Smith. In addition to commercial blocks and office buildings, at least two hotels (Bancroft House, 1877, Louis P. Rogers; Hotel Touraine, 1902, S. C. Hunt) survive along with two theatres (Sharpshooters Hall, 1892; Orpheum, 1910); of these, the Orpheum Theatre is the most outstanding architecturally, as its lavishly ornamented Renaissance Revival facade utilizes terracotta. This is a particularly early use of the material in the region.

Industrial: Most of the many industrial structures standing in New Bedford were constructed in the Late Industrial period as the city shifted from maritime to textile industry. Among the mills built are Nonquitt, Manomet, Beacon and Whitman Mills, most of these three through five story brick structures with utilitarian Romanesque Revival detailing, such as corbelled cornices and segmental arched window surrounds. Most of the buildings were constructed between 1895 and 1915 and many were designed by a single architect, Charles R. Makepeace. These large industrial complexes are concentrated, in the southern half of town, along Cove Street and East Rodney French Boulevard and in the northern half of town along lower Acushnet Avenue. Secondary industrial centers occur along the Harbor and railroad tracks.

X. EARLY MODERN PERIOD (1915 - 1940)

A. Transportation Routes:

Continued expansion of street railway system. Continued improvement of existing roads with Kempton (Route 6) principle connector with the Cape. New Bedford Airport.

B. Population:

1920 marked the peak population in New Bedford's history; from 1920 to the end of the period there was a marked decline in population. Foreign born population drops to 33% of the total in 1930.

C. Settlement:

Residential development continued during this period although at a slower rate than previous periods with extension of residential districts to the Dartmouth border on the west and along Acushnet Avenue in the north.

D. Economic Base:

The World War and the years immediately following represented a period of unprecedented prosperity for the New Bedford cotton textile industry, S. L. Wolfbein wrote. Capital invested in the industry doubled in the seven years 1914-20, while earnings increased six-fold. This growth continued until 1924 when textile production peaked. In that year 70 mills employed 41,630 workers, or almost one half of the city's work force. Two factors in this expansion were the huge government war orders for cotton goods, and the increase in auto production with the corresponding growth in demand for tire yarn. Although the yarn was a comparatively coarse product, the cotton used in its manufacture had to be combed for added strength. The combing process was associated with fine goods production, and it was in New Bedford that the equipment and experience for combing yarn could be found. Many mills abandoned their regular trade to concentrate on this type of product (Wolfbein).

In concentrating production on government orders and tire yarn, the mills had made a decision which increasingly exposed them to competition from coarser southern goods. The decision involved concentrating on spinning rather than weaving, yarn production rather than fine and fancy goods. Their position was further undercut in 1928 by the longest and severest strike in the city's history. In this period, the number of wage earners was cut in half, and the value of textile products was cut one third. In the depression years came the final blow, when the city lost almost two thirds of its textile mills. In 1940, only three cities in the country (of 102 areas surveyed by the U.S. Bureau of Labor Statistics) had a lower index of employment than New Bedford. (These cities were Duluth, Toledo, and Reading.) (Wolfbein)

In the boom years of New Bedford textiles, though cotton goods represented over 80% of the total value of all products manufactured in the city (1923), other important industries also made significant showings, including several important silk and rayon mills.

The same period also saw numerous civic and service improvements. The electric plant of the New Bedford Gas and Edison Electric Co. (1916-22) in 1930 ranked as the third largest in New England (Stone).

In 1925 the last whaling ship left port. Nevertheless, the same period saw a substantial growth in the New Bedford commercial fishing industry. The development of truck transportation gave a new attraction to New Bedford, as many fishing boats from Cape Cod waters, which formerly unloaded cargoes directly in Boston or New York, began to tranship hauls at New Bedford.

E. Architecture:

Residential: Residential construction in the 1920s occurred primarily as infill with some areas of new construction at the periphery of established neighborhoods: new construction in the 1920s took place along Shawmut Avenue in the northern part of the city and along Brock Avenue in the southern half of the city. Most of the houses constructed in those areas are simply detailed Craftsman and Colonial Revival cottages or two-family houses; simple bungalows are less common but examples were observed. In the established elite neighborhoods at the crest of the hill above the Central Business District, Colonial Revival and Craftsman houses were constructed as infill housing; Tudor and Dutch Colonial houses were also built on a more limited basis.

Institutional: Most of the institutional buildings of the period are schools, most of which are utilitarian two and three story brick structures with boxy, rectilinear plans, flat roofs and stock Georgian or Colonial Revival detailing. Most of the churches constructed are Catholic parishes located in neighborhoods developed in the Late Industrial period; the best of these is the Tuscan Revival buff brick Saint Joseph's Church (1938) on Acushnet Avenue, but several other modest neoclassical and Colonial Revival chapels (such as the church of Our Lady of Fatima, c. 1925, on Acushnet Avenue at Clifford) were also constructed. Also notable is a neoclassical Police Station (c. 1920) on Cove Street.

Commercial: Large masonry office blocks and stores of three to five stories continued to be built through the 1920s in the Central Business District. Major new commercial construction took place in the period along Acushnet Avenue north of Coggeshall Street where a linear commercial district of some ten blocks' length with three and four story frame and masonry buildings developed to service the surrounding working class neighborhoods. Cornerstones and neighborhood commercial districts are less common than in most urban areas with

small commercial districts observed at Kempton and Rockdale Avenues and at West Rodney French Boulevard and Cove Street. Of the buildings constructed, the most notable examples, architecturally, are those in the Central Business District where several limestone-faced neo-classical Beaux Arts and Renaissance Revival buildings were built. Included are buildings by local and Boston architects, such as the Safe Deposit Bank (Thomas M. James, Boston, 1918), the First National Bank of New Bedford (Hutchins and French, Boston, 1924), the Whaling City Hotel (Clinton and Russell, 1921), and the New State Cinema (Leary and Walker, 1923). Among the more outstanding buildings are the Cherry Building (1931), a four-story limestone faced Deco Moderne store, Kresge's (Walter G. Barker, Taunton, 1935) and the Star Store (1924), a four-story Beaux Arts classical building with an arcaded top floor embellished with elaborate terracotta trim.

Industrial: Additions continued to be made to existing industrial complexes through the mid-1920s. As before, most of this construction consists of utilitarian brick pier and spandrel masonry buildings usually of three or four stories height.

XI. SURVEY OBSERVATIONS

New Bedford's survey is thorough and well-researched but lacks an obvious organizational structure: many forms are duplicated, often with contradictory form and area numbers. Commercial and residential structures are the two categories with the highest representation with industrial structures also well represented. Curiously, few institutional buildings were included in the survey. While the most outstanding institutional buildings are located in the downtown area (and thus would have been covered in the city's several National Register districts), outlying examples were not picked up. Particularly significant is the city's well-preserved collection of late 19th-century fire stations. While the city's schools are less significant architecturally, good examples were observed which were not inventoried. Further districting should include the Acushnet Avenue commercial district (well-preserved turn of the century ethnic commercial district) and the early 20th-century residential/institutional/commercial district along Brock Avenue, which is a particularly well preserved section displaying the development of the early 20th-century streetcar suburb. New Bedford is notable for several attributes: first, although it covers a large area, much of the city remained within walking distance of the central business district/historic center; therefore, secondary commercial and institutional (churches) centers tended not to develop in neighborhoods. Secondly, the city retained open space in elite districts through the end of the second World War, so that neighborhoods of substantial houses often include examples of recent construction; even at the present time, large and ambitious new residential construction is occurring within the city limits, at Clark's Point. Finally, the city is notable as a regionally rare example of the use of the grid plan: laid out between 1795 and 1815, New Bedford's grid reflects the smaller proportions of the Federal city in its block size, a notable feature of the city's landscape which is deserving of preservation.

Industrial: Virtually all of the city's industrial structures appear to have been identified. Structures for which no forms were found include the stone Robinson sperm oil refinery, the New Bedford Gas and Edison Electric plant, the former street railway powerhouse at the Fairhaven bridge, and the Butler Flats light.

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