

NAVAL AMMUNITION DEPOT EARLE
(Naval Weapons Station Earle)
Colts Neck vicinity
Monmouth County
New Jersey

HAER NJ-142
HAER NJ-142

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
NORTHEAST REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
U.S. Custom House, 3rd Floor
200 Chestnut Street
Philadelphia, PA 19106

HISTORIC AMERICAN ENGINEERING RECORD

NAVAL AMMUNITION DEPOT EARLE
(Naval Weapons Station Earle)

HAER No. NJ-142

Location: Naval Ammunition Depot (NAD) Earle
(currently Naval Weapons Station [NWS]
Earle)
Colts Neck Vicinity
Monmouth County
New Jersey

USGS Sandy Hook Quadrangle, 1:24,000
UTM Coordinates: 18.579079.4475654

USGS Farmingdale Quadrangle, 1:24,000
UTM Coordinates: 18.568213.4453403

USGS Long Branch Quadrangle, 1:24,000
UTM Coordinates: 18.576701.4455956

USGS Marlboro Quadrangle, 1:24,000
UTM Coordinates: 18.566814.4456523

Construction Dates: 1943-45

Architect/Engineer: Shaw, Naess and Murphy, Architects/
Engineers; Frank Grad and Sons, Architects

Present Owner: Department of the Navy

Present Use: Naval Weapons Station

Significance: Funded in part by the Army, NAD Earle was
commissioned in 1943 as the only major
ordnance transshipment depot on the East
Coast. Its mission was to facilitate the
movement of ordnance from stateside
production and storage facilities to the
Navy and Army forces, then in the European
theater of World War II.

Project
Information:

The Department of the Navy plans to replace Trestle 2, Trestle 3, Pier 2, and Pier 3 at NWS Earle. These structures, and many of their associated buildings, were identified as meeting National Register Criterion A during a cultural resources investigation conducted at NWS Earle in 1999. The Department of the Navy and the New Jersey State Historic Preservation Office (NJ SHPO) have not reached an agreement concerning the specific definition or boundaries of the National Register-eligible architectural resources at NWS Earle to date; however, an assumption of eligibility for Trestle 2, Trestle 3, Pier 2, and Pier 3 was made for the purposes of this project. To mitigate the adverse effect of the proposed project to the piers, trestles, and associated buildings, the Department of the Navy, the NJ SHPO, and the Advisory Council on Historic Preservation entered into a Memorandum of Agreement stipulating written, graphic, and photographic documentation of the structures. This documentation was undertaken to fulfill these stipulations.

Historians:

Elizabeth Amisson, Sarah Farley, and Robert F. Panepinto, June 2003

Part I: Historical Information

Note: Most of the following history of NAD Earle/NWS Earle was extracted from the report "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey," prepared for Naval Weapons Station Earle, Colts Neck, New Jersey by The Cultural Resource Group, Louis Berger & Associates, Inc., February 1999.

A. General Background--Pre-Navy Period

Monmouth County, formed in 1683, was one of New Jersey's four original counties. The first political subdivision of the county occurred ten years later, when the townships of Middletown, Shrewsbury, and Freehold were created.¹ The townships of Raritan, Matawan, and Holmdel, and part of Atlantic Township (Colts Neck Township), were subsequently formed out of Middletown.² Similarly, Shrewsbury Township was progressively subdivided into smaller administrative units, such as Stafford, Howell, Ocean, Wall, Eatontown, and Neptune Townships, and the twentieth-century boroughs of Rumson, Red Bank, Shrewsbury, and New Shrewsbury.³

The earliest settlers located their farms along watercourses, as the waterways provided the easiest means of transportation as well as power for the milling of grain. Roads were soon constructed overland, away from the creeks and rivers, to link the emergent population centers with one another and with older settlements around New York and Philadelphia. Throughout the eighteenth century and into the nineteenth century, farms and villages were increasingly located along these transportation

¹ John Cavallo, "A Preliminary Cultural Resource Assessment of the Proposed F-Group Magazine Area and Vertical Launch Facility, Earle Naval Weapons Station, Colts Neck, New Jersey" (East Orange, NJ: The Cultural Resource Group, Louis Berger & Associates, Inc., 1988), 16.

² M. Mustin, *A Sketch of Monmouth County, New Jersey-1683-1929* (Camden, NJ: M. Mustin and Company, 1929), 38.

³ Ecology & Environment, Inc., "Cultural Resources Assessment for Naval Weapons Station Earle, Colts Neck, New Jersey" (Lancaster, NY: Ecology & Environment, Inc., 1990), 3-20.

routes.⁴ However, swampy conditions and poor soil in the central sections of the county hindered or prevented the settlement of these areas.⁵

Agriculture was the driving force in the local economy from the seventeenth century to the mid-twentieth century. As roads improved, and especially after the arrival of the railroad, Monmouth County farmers benefited from their relative proximity to two major urban market centers, New York and Philadelphia.⁶ In addition, several extractive and processing industries supplemented or complimented the farm-based economy, including bog iron, timber for charcoal, and clay for brick manufacture. Marl, a calcareous clay, was also dug during the nineteenth century, and was used as an inexpensive version of lime fertilizer to neutralize acidic soils.⁷

By the 1870s, Monmouth County was linked to the growing national rail network, courtesy of the Jersey Southern and the New York & Long Branch railroads.⁸ In addition to providing inland farmers and merchants better access to national markets, these railroads enhanced tourist travel to the coastal areas of the county, where fishing villages, warehouses, and boatbuilding establishments formerly predominated.⁹ Sandy Hook Bay developed into a popular resort area, with yacht basins, vacation hotels, and recreation facilities studding the shoreline. Increasingly, these establishments served, and were supported by, year-round residential communities. Both on the shore and inland, rail

⁴ Cavallo, 16.

⁵ The Cultural Resource Group, Louis Berger & Associates, Inc., "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey" (n.p.: The Cultural Resource Group, Louis Berger & Associates, Inc., 1999, photocopied), 8.

⁶ G. Hunton and J. C. McCabe, "Monmouth County Historic Sites Inventory Summary Report" (Trenton, NJ: Office of New Jersey Heritage, 1984), 9.

⁷ Cavallo, 18; W. M. Matthew, "Slave Skills, Plantation Schedules, and Net Returns in Southern Marling, 1830-60" (*Plantation Society* 2, December 1986), 172.

⁸ Hunton and McCabe, 21.

⁹ *Ibid.*, 10.

transportation spurred the development of suburbs whose residents commuted to work in New York and northern New Jersey cities.¹⁰ Thus, by World War I, the landscape of Monmouth County was composed primarily of agricultural, suburban residential, and seaside recreational developments interspersed with unblemished wooded areas.¹¹

The military presence in the county began during World War I, when the Army established Fort Monmouth in Shrewsbury as a training camp for the Signal Corps. In 1943, the U.S. Navy enhanced this presence with the creation of an ammunition depot in the undeveloped central part of the county, with a connecting corridor to the shore near the town of Leonardo. Together, these two installations have made Monmouth County an important military center in the New York-New Jersey metropolitan area.¹²

B. NAD Earle

1. Background

In 1800, the newly created U.S. Department of the Navy established six government-owned shipyards on the Atlantic coast, one of which took over a small, existing shipyard on the East River in Brooklyn. This became the New York Navy Yard (popularly known as the Brooklyn Navy Yard). It originally served primarily as a supply depot, but was later charged with outfitting, repairing, and, eventually, building ships. During the War of 1812, the yard fitted out over 100 U.S. government vessels, and by the mid-1830s, the yard was producing the Navy's first steam-powered vessels. During the American Civil War, the New York yard became the federal government's most important shipyard.¹³

¹⁰ Edward Heite and Louise Heite, "Report of Phase I Archaeological Reconnaissance Survey in Connection with Construction of Six Smokeless Powder/Projectile Magazines at Naval Weapons Station Earle" (Philadelphia, PA: by the authors, 1985), 8.

¹¹ The Cultural Resource Group, 8.

¹² Hunton and McCabe, 33.

¹³ The Cultural Resource Group, 9.

The gradual expansion of the New York Navy Yard during the nineteenth century, and the growing complexity and specialization of the Navy itself during the early twentieth century, eventually prompted the creation of satellite bases around the New York area to accommodate a variety of missions, particularly ammunition storage. The first such facility was established at Lake Denmark, about 7 miles from Dover, New Jersey, on land the Navy purchased in 1892.¹⁴ In 1898, Fort Lafayette, situated in the narrows off Brooklyn and across from Staten Island, was transferred to the Navy as a storage facility for munitions and supplies.¹⁵ Two years later, the Navy acquired Iona Island in the Hudson River about 35 miles north of New York City, and constructed another ammunition depot there.¹⁶ The Lake Denmark and Iona Island depots provided munitions and reserves for the vessels of the New York-based Third Fleet. In addition, when ships came to the Navy Yard for repair, their ammunition was unloaded and sent to the depots for overhaul, which involved the removal and replacement of explosive material and the checking of mechanical parts.¹⁷

By the 1930s, the Navy maintained nine ammunition depots nationwide: eight on the Atlantic and Pacific coasts (including Iona Island, NY, and Lake Denmark, NJ), and one far inland at Hawthorne, Nevada.¹⁸ As the prospect of war increased throughout the decade, the U.S. began to expand the Navy's fleet and shore establishment and make improvements to existing depots to accommodate increased demand. By late 1941, however, ammunition production outstripped both the storage and disbursal capacities of existing installations, and the Navy embarked on what proved to be an enormous and perpetually ongoing program of expansion and new construction. The latter ultimately resulted in twelve

¹⁴ Paolo E. Coletta, ed. *United States Navy and Marine Corps Bases, Domestic* (Westport, CT: Greenwood Press, 1985), 370.

¹⁵ *Ibid.*, 372.

¹⁶ *Ibid.*, 370.

¹⁷ U.S. Navy, Bureau of Yards and Docks, *Building the Navy's Bases in World War II, Volume 1* (Washington, D.C.: U.S. Government Printing Office, 1947), 323.

¹⁸ *Ibid.*, 323.

new ammunition depots--three inland installations, five coastal depots, and four coastal shipping facilities.¹⁹

Most of the Navy's inland storage space proved adequate, but the problem of transshipment remained. As a result of earlier developments, waterfront storage and loading facilities were located chiefly in crowded port areas, and therefore were limited in the quantities of munitions that could be handled safely. For this reason, the time required to actually load and unload ammunition was longer than the Ordnance Department wished. During the late 1920s, the Navy had considered development of an ammunition shipping station specifically to provide "in-transit storage of high explosive[s], including appropriate rail facilities and a deep-water pier."²⁰ This idea ultimately achieved fruition in December 1941, when a shipping station was authorized for Port Chicago, near San Francisco, at a location selected "to minimize explosion hazard to surrounding property."²¹ On the Atlantic coast, a "modest" shipping facility was provided by the Navy's installation on St. Julien's Creek, up the Elizabeth River from the Norfolk (Virginia) Navy Yard. Elsewhere, including the New York area, the transshipment of ammunition was achieved through the use of lighters that carried material to "specially designed anchorages for transfer," a time-consuming process.²²

As early as 1940, both the Army and the Navy perceived a need for an ammunition transshipment depot in the New York area, and each formed an independent committee to look into the matter. According to historian Ernest J. Benshimol,

By 1943 the need had become urgent. The [onset] of war had vastly increased [the] shipments of explosives, the bulk of the loading falling upon Caven Point [New Jersey], which, because of its proximity to thickly-

¹⁹ Ibid., 323, 329.

²⁰ Ibid., 330.

²¹ Ibid., 331.

²² Ibid., 331; A lighter is a flat-bottomed barge used for loading ships.

populated areas . . . and military facilities, was considered an extreme hazard.²³

Both the Army and the Navy focused on the New Jersey shore south of New York. The requirements for a transshipment depot were a large storage area located well away from densely populated areas but in close proximity to New York City and major railroad lines, good deep-water berths with ocean access, and the ability of munitions-laden ships to avoid the "busy waters" of the East River, Hudson River, and Long Island Sound. Sandy Hook Bay proved to best meet the deep-water berth criterion, but the Army committee abandoned the project because of its probable excessive cost.²⁴ The committee preferred undeveloped land because it could be acquired more cheaply and would displace fewer residents, but such land was difficult to find along the coast and so close to New York City.²⁵ Persisting, the Navy conducted an aerial survey further inland in Monmouth County, which revealed a large wooded, swampy tract about 12 miles southwest of the bay, from which "a railroad could be laid in an almost direct line" to the waterfront.²⁶

Admiral Blandy, Chief of the Bureau of Ordnance, proposed this site for a New York area ammunition depot early in the spring of 1943, but the Vice Chief of Naval Operations rejected the request because the cost of the project, \$25 million, was too high. Blandy reduced the cost to \$14 million by cutting facilities from the original estimate, resubmitted the proposal, and it was finally approved in June 1943.²⁷

²³ Ernest J. Benshimol, "History of U.S. Naval Ammunition Depot Earle, New Jersey" (Subject Files (ACC No. A-12-1(1)), Loc No. R-105-6-4-5, Box 422, RG 181, National Archives and Record Administration, Northeast Branch, also filed at Naval Weapons Station Earle, Public Affairs Office), 16.

²⁴ Ibid., 17, 43-44.

²⁵ Ibid., 18.

²⁶ Ibid., 18; U.S. Navy, 334.

²⁷ Benshimol, 18.

2. Construction of NAD Earle

Initial construction contracts for the new transshipment station were let in the summer of 1943. The architectural firms of Shaw, Naess and Murphy, and DeLeuw, Cather and Company, were contracted to design the complex, which was to be named in honor of Rear Admiral Ralph Earle, Chief of the Bureau of Ordnance during World War I.²⁸ The main administrative area would be located near the intersection of U.S. Route 34 and Asbury Avenue, approximately 2 miles south of the village of Colts Neck. Construction of the temporary administration building and barricaded railroad sidings commenced on August 4, 1943, but within a month it became clear that the cost of constructing the depot had been underestimated, and in mid-September the Navy requested an additional \$7 million.²⁹ Dense vegetation, the prevalence of swampy areas, topography, and soil erosion hampered construction from the very beginning, and were largely responsible for the greatly increased costs.³⁰

The plan of the installation "was based on the layouts of recently constructed interior depots," but without the benefit of topographic maps or field data; the plan later required alterations to accommodate "the purposes of this terminal depot," as well as its physical setting.³¹ Preliminary surveys showed that the swampiness of the site required the removal of several feet of "unstable muck" and the addition of stable fill before the waterfront or inland areas could be built upon. Also, because of the topography, far more earth moving was required than initially envisioned; the United States Geological Survey (USGS) Maps, which preliminary studies were based upon, were found to be "partially incorrect and in some instances contained

²⁸ Ibid., 19-20, 71.

²⁹ Ibid., 20, 22.

³⁰ The Cultural Resource Group, 12.

³¹ Benshimol, 23, 45.

errors in elevation as much as 30 feet."³² Finally, "labor costs in the New York area . . . greatly exceeded those anticipated."³³

The placement of the magazine groups depended partly upon which groups required rail service, provision of which depended upon relative elevation. Those magazine groups with rail service had to be situated at nearly the same elevation, or grade, as the rest of the railroad network on the station. Thus, when the Navy discovered that the elevation data were incorrect, it was forced to change rail service from one magazine group to another after construction bids were solicited.³⁴

The facilities for handling Army ammunition were the most significant addition to the construction plan. The Army was shipping its ammunition out of a variety of locations within the Port of New York, and determined that "activities of the scale contemplated to support European action would be too hazardous." In an agreement between the Department of War and the Department of the Navy, the establishment of NAD Earle became a collaborative venture, with the Army contributing over \$19.5 million for the expansion and improvement of the depot and waterfront areas in 1944, while the Navy built and operated the entire station. The Navy awarded the contract for the changes to the designs necessitated by the inclusion of the Army in the project to Shaw, Naess and Murphy and Frank Grad and Sons.³⁵ Although construction was far from complete, the Navy commissioned NAD Earle on December 13, 1943.³⁶

By 1945, the storage facilities at NAD Earle consisted of 144 high-explosive magazines, fifty-two powder and small arms magazines, thirty-four magazines for fuses and detonators, and eight magazines for the storage of black powder. Other facilities included twenty storehouses, fifty-two barricaded sidings for in-transit Army munitions, thirty barricaded sidings

³² Ibid., 45.

³³ Ibid., 22-23.

³⁴ Ibid., 45.

³⁵ Ibid., 49-51, 72.

³⁶ The Cultural Resource Group, 13.

for the Navy, 160 miles of roadway, 126 miles of rail line, the two-mile-long trestle and piers, assorted support and administrative structures, and barracks for 4,500 men.³⁷

The construction of NAD Earle involved the erection of "large numbers of standard structures," including: magazines of various types, storehouses, barricaded rail sidings, barracks, and "relatively simple production buildings."³⁸ Because NAD Earle was designated a permanent installation, many buildings that were typically constructed with wood frames and composition siding instead were constructed of brick and/or concrete. During the early phases of construction, such buildings featured brick bearing walls, concrete floors, wood roof trusses, and tile interior walls. Buildings erected for personnel later in the program were of wood frame with brick veneer and plasterboard walls. Some of the barracks were constructed of concrete block, with wood floors and roofs.³⁹

3. Construction of the Pier Complex

The original contract for the construction of the Pier Complex was negotiated with J. Rich Steers, Inc. of New York, New York, for the sum of \$2.66 million. The project was to include the construction of "ship piers and approach together with pier buildings, all railroad tracks, dredging and other work . . ."⁴⁰ Shaw, Naess and Murphy, and DeLeuw, Cather and Company, prepared the original plans and specifications for the project.⁴¹ Shortly after the contract was signed, the Army provided funds to the Navy for the construction of an additional ship pier and the widening of the barge pier and approach trestle. Thus, the Navy awarded a contract to Shaw, Naess and Murphy, and Frank Grad and

³⁷ U.S. Navy, 347.

³⁸ Ibid., 338-339.

³⁹ Ibid., 346.

⁴⁰ L. W. Lancaster, "Record Report, Contract NOy-7693, Ships Piers and Approaches" (Colts Neck, NJ: U.S. Naval Ammunition Depot Earle, 1945), ii.

⁴¹ Benshimol, 71.

Sons, for new plans. A second contract was agreed upon with J. Rich Steers for the completion of the additional work.⁴² Construction of the complex was completed in June 1945 and included approximately 569,000 square feet of deck for the trestle and piers, 25,220 piles, and approximately 5.8 miles of railroad track.⁴³

4. World War II Operation of NAD Earle

NAD Earle's primary mission during World War II was to be a point of embarkation for ordnance destined for the European theater. Unlike most other Navy ordnance depots at the time, NAD Earle had few facilities for the assembly of ammunition; instead, its facilities were geared toward receipt of material, sorting and temporary storage, and reorganization for delivery to the piers. The inland storage area was situated so that a line of the Central Railroad of New Jersey (CRRNJ), now CSX, entered the station at its southeastern corner. There were also access gates at the west end of the Army Intransit Area and north of the receiving yard. The bulk of the ordnance and other materials handled during the war entered via rail, and initial segregation took place in the receiving and dispatching yard adjacent to this CRRNJ line. Further sorting of materials by boxcar occurred in the classification yard, through which anything destined for the piers had to pass. The transfer of items from railroad car to truck, and vice versa, took place at the transfer depot (Building HA-1). At the waterfront area, a spur stemmed from another CRRNJ line (that paralleled NJ Route 36) to both the piers and to the locomotive shed.⁴⁴

Initial operations at NAD Earle were not without problems. Changes, additions, oversights, and maintenance issues caused by the cuts made to the original construction plans increased the cost from \$14 million to \$58.2 million (including the \$19.5 million provided by the Army for its share of the facility). The problems caused by the cuts were so severe that they warranted comments from the Navy Inspector General (NIG) in a Third Naval

⁴² Lancaster, 5.

⁴³ Ibid., 12.

⁴⁴ The Cultural Resource Group, 14. *Naval Weapons Station Earle: A Cultural Resource Study*

District Inspection Report. The basis of the NAD Earle information in this report seems to be a memorandum dated December 30, 1944, entitled "Informal History of Naval Ammunition Depot, Earle, NJ" prepared by the Commanding Officer, Captain Burton H. Green. In this history, Captain Green identified problems at NAD Earle, including:

- Lack of proper planning at the outset leading to construction delays, and a failure to recognize the operational demands that would be placed on the new facility;
- Lack of provision for a deep-water pier in revised plans;
- Lack of facilities for storage of tools in the industrial area, for gear storage and offices on the barge pier, and for staff at the magazines and pier areas, necessitating transport of personnel between these areas and the mainside area (i.e., restrooms, quarters, lunchrooms);
- Poor layout of the railroad, particularly at the pierhead and "F" group magazines, creating bottlenecks, and poor construction of the railroad itself (i.e., use of second-hand rails and omission of anti-creepers and plates for holding rails on ties).⁴⁵

In addition, the NIG's report identified other problems, including lack of facilities for inspecting ammunition turned in for temporary storage; lack of properly trained staff, including engineers, ordnancemen, officers, etc.; lack of equipment, from hand trucks in the magazines to locomotives; and poor lighting in the barricades leading to accidents. Other problems of various scales were identified but all required remedy.⁴⁶

The overall tone of the NIG's report was negative, but at the same time recognized that

⁴⁵ Captain Burton H. Green, U.S. Navy, "Informal History of Naval Ammunition Depot, Earle, New Jersey" (Memorandum to Captain Hutchins, U.S. Navy (Retired), Colts Neck, NJ: Naval Ammunition Depot Earle, 1944), 1-4.

⁴⁶ "Excerpts from report of NIG-Part II" (New York, NY: Headquarters of the Commandant Third Naval District, 1945).

Even though the Naval Ammunition Depot, Earle, is handicapped by certain omissions and deficiencies . . . there can be no disputing the fact that this ordnance facility is proving to be of the UTMOST [sic] value at this time . . . There is also an important advantage of safety, for at Earle it is not necessary to transport ammunition . . . through a large city . . . ; and Leonardo . . . is not close to cities or industrial plants that would be jeopardized by the proximity of such terminal[s].⁴⁷

5. Post-World War II Period

NAD Earle remained in active operation in the postwar decades, although with a much reduced station complement. Until 1950, the station's primary mission was to receive, sort, store, and issue ordnance and, secondarily, to repair and assemble ordnance. During the Korean Conflict, NAD Earle once again provided ammunition to units overseas, shipping record quantities of ammunition to the front while twice being awarded the Secretary of the Navy's Safety Award (1951 and 1952).⁴⁸

In 1950, NAD Earle's mission expanded to include the activities of the Naval Ordnance Materials Handling Laboratory (NOMHL), which transferred to NAD Earle from Hingham, Massachusetts. During and after the war, NOMHL's position at the forefront of innovations in materials handling, including palletization, revolutionized the ways in which bulk materials, including ordnance, were packaged, handled, and shipped. Upon the laboratory's move to NAD Earle, Building R-4B, located in the Waterfront Area, was converted from a barracks into office and laboratory space to receive the new department; the handling laboratory later gained the use of Building R-4A as well. During the post-World War II period, various buildings were added

⁴⁷ Ibid., 2-3.

⁴⁸ Ibid.

almost every year, although noticeable peaks of construction activities occurred in 1952-53, 1961-64, and 1971-73.⁴⁹

As the Navy entered the Cold War period, the Station's mission was expanded again to accommodate the storage of missiles; in 1959, it was "assigned the functions of an LSS [limited storage site] for special weapons."⁵⁰ Also during the 1950s, the work load at NAD Earle increased slightly "due to the gradual deactivation of the [naval ammunition depots at] Fort Mifflin, Pennsylvania, and Hingham, Massachusetts".⁵¹

As the Cuban Missile Crisis flared in October and November of 1962, NAD Earle operated two ten-hour shifts in support of ships during the increased tensions of the naval blockade of Cuba. Personnel from all departments, including Supply and Public Works, joined in ordnance operations. After the crisis, the base was commended by the Commander Service Forces, U.S. Atlantic Fleet for its assistance in the ". . . rapid attainment of readiness by the United States Atlantic Fleet."⁵²

The mid- to late 1960s saw an increase in activity at NAD Earle, most likely associated with the increased American presence in Vietnam. The permanent complement of the base increased to 760 after ninety-four positions were added. The majority of the new personnel, fifty-nine positions, were assigned to the Naval Weapons Handling Laboratory. The workload also increased significantly in August 1967, when all six berths at the piers were simultaneously occupied for the first time since 1952. Another indicator of an increase in activity brought about by the war in Southeast Asia was the loan of 5 acres in the eastern

⁴⁹ "Detailed Inventory of Naval Shore Facilities, Parts 1 and 2" (Colts Neck, NJ: Naval Weapons Station Earle, Office of Public Works, 1989); "Buildings and Structures, Naval Weapons Station Earle" (Colts Neck, NJ: Naval Weapons Station Earle, Office of Public Works, 1989).

⁵⁰ Jesse Motes, "Command History, U.S. NAD Earle, New Jersey" (Colts Neck, NJ: Naval Ammunition Depot Earle, 1959), 4.

⁵¹ Motes, 1.

⁵² "NAD Earle on the Move—25 Years Service to the Fleet" (*The Earle Missile*, October 16, 1968), 5.

portion of the Mainside to the Army for the training of non-commissioned officers from Fort Monmouth prior to their rotation to Vietnam.⁵³

The station was renamed Naval Weapons Station (NWS) Earle as part of a department-wide reorganization in 1974, which also expanded the base's mission to serve as the homeport for the *USS Nitro*, the first ship to be homeported at NWS Earle. Toward the end of the 1980s, the Navy embarked on a major expansion program, including a fourth pier and 500 additional housing units, to support the homeporting of two ammunition/oiler ships, *USS Detroit* and *USS Seattle*.⁵⁴ Following is a chronological list of ships homeported at the Station between 1974 and 2003:

- 1974 - *USS Nitro* (AE23). Decommissioned April 28, 1995.
- 1976 - *USS Suribachi* (AE21), transferred to NWS Earle. Decommissioned December 1994.
- 1980 - *USS Butte* (AE27). Decommissioned June 3, 1996.
- 1990 (March) - *USS Detroit* (AOE4). To be replaced with a T-AKE in 2006.
- 1990 (July) - *USS Seattle* (AOE3). Transferred to Norfolk June 2001.
- 1997 - *USS Supply* (AOE6). Transferred to MSC July 2001, but remains homeported at NWS Earle.
- 1998 - *USS Arctic* (AOE8). Transferred to MSC June 2002, but remains homeported at NWS Earle.
- 2001 - *USNS Mt. Baker* (AE). Homeported at NWS Earle under the MSC.⁵⁵

Recent additions to the station include a child development center, a hobby shop, and a family service center.⁵⁶

⁵³ Ibid.

⁵⁴ "Fact Sheet, Naval Weapons Station Earle" (Colts Neck, NJ: Naval Weapons Station Earle, n.d.).

⁵⁵ "History of Homeported Ships at Naval Weapons Station Earle." (Colts Neck, NJ: Naval Weapons Station Earle, n.d.).

⁵⁶ "Fact Sheet, Naval Weapons Station Earle."

NAVAL AMMUNITION DEPOT EARLE
(Naval Weapons Station Earle)
HAER No. NJ-142
(page 17)

NWS Earle no longer handles Army ammunition, and probably has not done so since the 1960s.⁵⁷ The Army (Fort Monmouth) no longer utilizes any part of the Wayside Area. The Navy continues to use the barricaded railroad sidings in the Army Intransit Area, and still transports weapons and ordnance to the piers by rail. However, most of the materials entering the station from the outside arrive via tractor-trailer.⁵⁸

Of the nineteen naval ammunition depots in operation during World War II, eleven remain active today, including three (Hawthorne, McAlester, and Lake Denmark) that have been transferred to the Army. Throughout the past sixty years, NWS Earle's overall mission has remained constant. The station continues to serve the purpose for which it was designed and built--as an ordnance transshipment depot, a station where ammunition and weapons are temporarily stored prior to loading aboard naval ammunition ships that tend the fleet, or are loaded directly aboard naval combat vessels. Unexpended ordnance unloaded from naval vessels also is returned to storage, repaired, or overhauled at NWS Earle, or held temporarily prior to shipment to other naval installations.⁵⁹

⁵⁷ Michael T. Brady, telephone interview by T. A. Cunning, 28 March 1996, The Cultural Resource Group, Louis Berger & Associates, Inc., "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey" (Colts Neck, NJ: The Cultural Resource Group, Louis Berger & Associates, Inc., 1999); The Cultural Resource Group, 18; Motes, 3.

⁵⁸ Brady, interview.

⁵⁹ The Cultural Resource Group, 18.

Part II: Descriptive Information

A. Base Description

Note: The following description of NAD Earle/NWS Earle was extracted from the report "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey," prepared for Naval Weapons Station Earle, Colts Neck, New Jersey, by The Cultural Resource Group, Louis Berger & Associates, Inc., February 1999.

NWS Earle occupies approximately 11,070 acres and includes the main station (or Mainside Area), the Army Intransit and Wayside areas, the Waterfront Area, and the Normandy Road Corridor which connects them. The station contains more than 700 buildings and structures relating to the installation's function as a transshipment and temporary storage facility for naval weapons and ordnance, in support of fleet activities. NWS Earle consists of areas of mixed forest and woody swampland interspersed with grassy openings on which are located magazines and other buildings. The majority of buildings are one and two stories high, with several slightly taller industrial buildings.

Because NWS Earle was conceived as a permanent installation, the great majority of the World War II-era buildings are constructed of brick, concrete, or concrete block. The larger buildings have concrete interior support posts resting atop concrete piers. Relatively few wood or metal buildings were constructed at that time. The remaining wood buildings are generally small, drop-sided service structures, such as the carpenter shop, fire alarm houses, or storage sheds. The Quonset hut building type that dominated World War II (temporary) military construction is comparatively limited at NWS Earle, but one example remains near the Mainside vehicle repair shops.

The Mainside Area consists of approximately 8,420 acres and includes the administrative, residential, industrial, ordnance storage, and operations areas. Most of the buildings are concentrated near the intersection of State Route 34 and the former Asbury Avenue, within the center of the installation's administrative area. The original buildings and housing are also located here.

The ordnance storage and operations area contains groups of magazines, storehouses, and barricaded railroad sidings, all of which are sited throughout the western, southern, and southeastern sections of the Mainside Area. These building groups are connected via a network of roads and railroad spurs. The two groups of barricaded railroad sidings are in the eastern section, and are separated by the ordnance disposal (EOD) area.

The Army Intransit and Wayside Areas consist of approximately 1,720 forested and cleared acres at the northeastern corner of the main station. These areas include four rows of barricaded railroad sidings (the Intransit Area), with fifty-two sidings in all. The Wayside Area wraps around the northern and eastern sides of the barricaded section. Various small buildings and communications structures were formerly spread throughout the Wayside Area; however, all of the buildings in this area have been demolished. The Intransit Area also lacks buildings.

The Waterfront Area contains approximately 670 acres, within which the following are located: the trestle and pier area; the administrative, residential, and industrial area located inshore of the trestle and piers; and an abandoned storage area (P Group barricades). The pier and trestle area projects from the mainland and lacks all vegetative growth. The Chapel Hill Area surrounding P Group can be described as wooded and swampy, and is located several miles inland from the waterfront.

The Normandy Road Corridor is 14 miles long and consists of a gently winding right-of-way containing a double-tracked railroad and a parallel two-lane roadway. This area covers approximately 260 acres, and includes seven bridges and several buildings.

Part III: Sources of Information

A. Engineering Drawings

Naval Ammunition Depot Earle. *Master Shore Station Development Plan, Part IV Section 2, Area Development Plan, Structures*. Colts Neck, NJ: Naval Ammunition Depot Earle, 1953. Printed from a CD provided by Naval Weapons Station Earle, Base Civil Engineering Office.

Naval Ammunition Depot Earle, Base Civil Engineering Office. *Naval Ammunition Depot Earle, Colts Neck, NJ, General Development Map*. Colts Neck, NJ: Naval Ammunition Depot Earle, Base Civil Engineering Office, 1973. Printed from a CD provided by Naval Weapons Station Earle, Base Civil Engineering Office.

Naval Weapons Station Earle. *Naval Weapons Station Earle*. Colts Neck, NJ: Naval Weapons Station Earle, 1991.

B. Historic Views

Danforth, Lew. "Loading Piers-N.A.D. Earle, N.J." 1951. Illustration filed at Naval Weapons Station Earle, Public Affairs Office.

Original photographs of pier complex at Naval Ammunition Depot Earle/Naval Weapons Station Earle. 1944-76. Filed at Naval Weapons Station Earle, Public Affairs Office.

C. Interviews

Brady, Michael T. Telephone interview by T. A. Cunning, 28 March 1996. The Cultural Resource Group, Louis Berger & Associates, Inc. "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey." Colts Neck, NJ: The Cultural Resource Group, Louis Berger & Associates, Inc., 1999.

D. Bibliography

Benshimol, Ernest J. *History of U.S. Naval Ammunition Depot Earle, New Jersey*. Subject Files (ACC No. A-12-1(1)), Loc No. R-105-6-4-5, Box 422. RG 181. National Archives and Record Administration, Northeast Branch. Also filed at Naval Weapons Station Earle, Public Affairs Office.

"Buildings and Structures, Naval Weapons Station Earle." Colts Neck, NJ: Naval Weapons Station Earle, Office of Public Works, 1989. Photocopied.

Cavallo, John. "A Preliminary Cultural Resource Assessment of the Proposed F-Group Magazine Area and Vertical Launch Facility, Earle Naval Weapons Station, Colts Neck, New Jersey." East Orange, NJ: The Cultural Resource Group, Louis Berger & Associates, Inc., 1988. Photocopied.

Coletta, Paolo E., ed. *United States Navy and Marine Corps Bases, Domestic*. Westport, CT: Greenwood Press, 1985.

The Cultural Resource Group, Louis Berger & Associates, Inc. "Architectural Resources Survey: Naval Weapons Station Earle, Monmouth County, New Jersey." Colts Neck, NJ: The Cultural Resource Group, Louis Berger & Associates, Inc., 1999. Photocopied.

"Detailed Inventory of Naval Shore Facilities, Parts 1 and 2." Colts Neck, NJ: Naval Weapons Station Earle, Office of Public Works, 1989. Photocopied.

Ecology & Environment, Inc. "Cultural Resources Assessment for Naval Weapons Station Earle, Colts Neck, New Jersey." Lancaster, NY: Ecology & Environment, Inc., 1990.

"Excerpts from report of NIG-Part II." Third Naval District Inspection Report-II. New York, NY: Headquarters of the Commandant Third Naval District, 1945. Photocopied.

"Fact Sheet, Naval Weapons Station Earle." Colts Neck, NJ: Naval Weapons Station Earle, n.d.

Green, Captain Burton H., U.S. Navy. "Informal History of Naval Ammunition Depot, Earle, New Jersey." Memorandum to Captain Hutchins, U.S. Navy (Retired). Colts Neck, NJ: Naval Ammunition Depot Earle, 1944. Photocopied.

Heite, Edward and Louise Heite. "Report of Phase I Archaeological Reconnaissance Survey in Connection with Construction of Six Smokeless Powder/Projectile Magazines at Naval Weapons Station Earle." Philadelphia, PA: by the authors, 1985. Photocopied.

"History of Homeported Ships at Naval Weapons Station Earle." Colts Neck, NJ: Naval Weapons Station Earle, n.d.

Hunton, G. and J. C. McCabe. *Monmouth County Historic Sites Inventory Summary Report*. Trenton, NJ: Office of New Jersey Heritage, 1984.

Lancaster, L. W. "Record Report, Contract NOy-7693, Ships Piers and Approaches." Colts Neck, NJ: U.S. Naval Ammunition Depot Earle, 1945.

Matthew, W. M. "Slave Skills, Plantation Schedules, and Net Returns in Southern Marling, 1830-60." *Plantation Society* 2 (December 1986).

Motes, Jesse. "Command History, U.S. NAD Earle, New Jersey." Colts Neck, NJ: U.S. Naval Ammunition Depot Earle, 1959.

Mustin, M. *A Sketch of Monmouth County, New Jersey-1683-1929*. Camden, NJ: M. Mustin and Company, 1929.

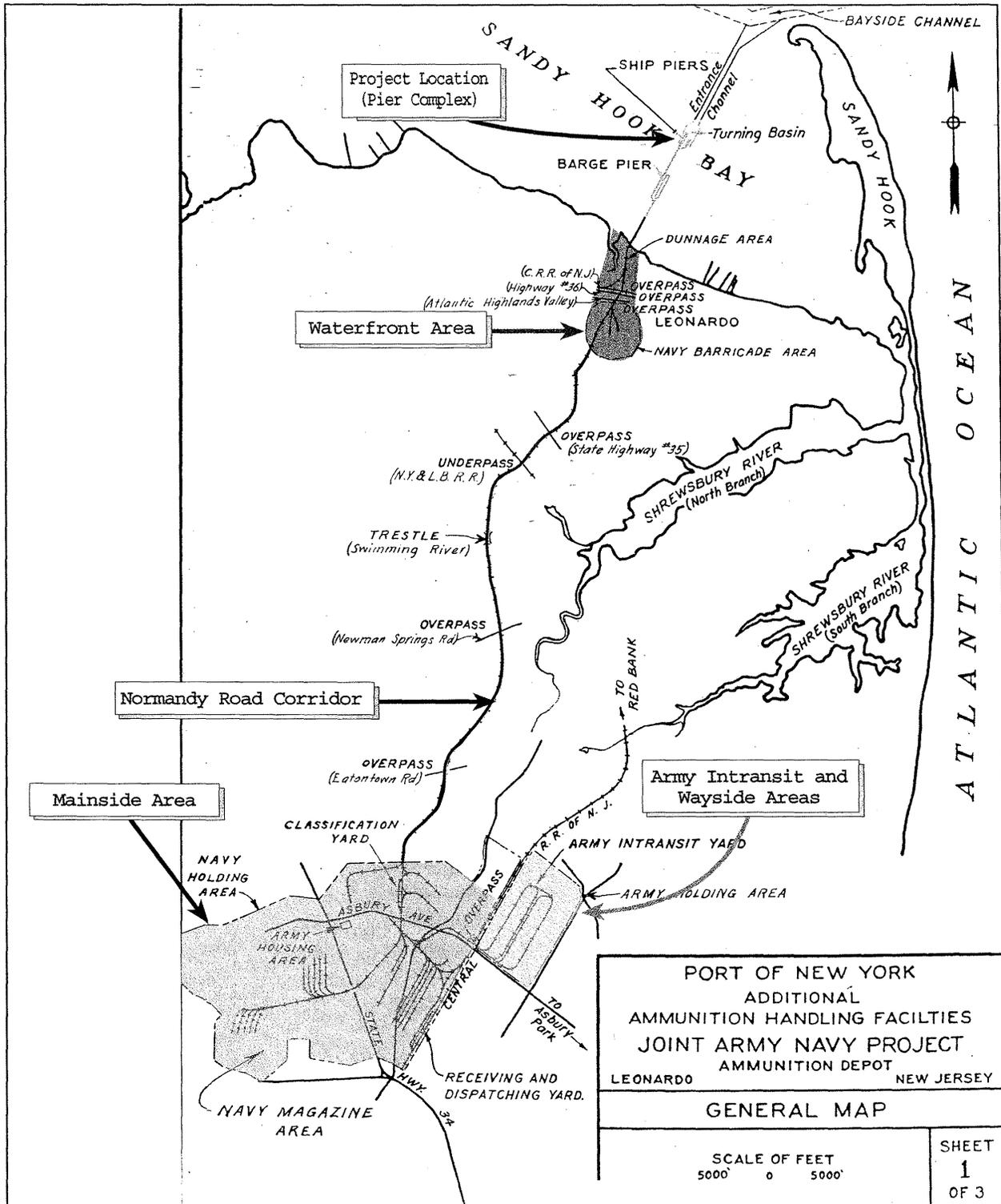
U.S. Navy, Bureau of Yards and Docks. *Building the Navy's Bases in World War II, Volume 1*. Washington, D.C.: U.S. Government Printing Office, 1947.

E. Likely Sources Not Yet Investigated

Records of the Department of the Navy, Naval Historical Center, 805 Kidder Breese Street SE, Washington Navy Yard, D.C. 20374-5060

NAVAL AMMUNITION DEPOT EARLE
(Naval Weapons Station Earle)
HAER No. NJ-142
(page 23)

Records of the National Archives and Records Administration,
8601 Adelphi Road, College Park, MD 20740-6001



General Map, 1945
 (source: Lancaster 1945)