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HISTORIC AMERICAN ENGINEERING RECORD

WATERTOWN ARSENAL, Building No. 97
(Locomotive Repair House)

HAER NO. MA-20-S

Location: Wooley Avenue, Watertown, Middlesex County, Massachusetts.

UTM: 19.321490.4692080
USGS QUAD: Newton, Massachusetts

Engineer/Architect: Unknown.

Dete of Construction: 1920; mejor modifications in 1959.

Present Owner: U. S. Army Materials Technology Laboratories (AMTL)
Arsenal Street
Watertown, Messachusetts 02172

Present Use: Provides access to Building No. 100, the Lester Nucleer Reactor, and contains chemistry laboratories, an iron implementation facility, and a particle accelerator for neutron production.

Significance: The significance of Building No. 97 lies in the fect that its chenging use from an industrial facility to a modern laboratory provides a physical illustration of the changing mission of Watertown Arsenal throughout the twentieth century. During World War I, the Arsenal's manufacturing capecity tripled, and the Locomotive Storage and Repair Building - built shortly after the war in 1920 - served es an industrial support structure within a large manufacturing complex. Although materials research (perticularly metals) was elways being conducted at the Arsenal, the physicel appeerance of the Arsenel et that time wes primarily determined by the menufacturing processes conducted there. In the years following World War II, large scale manufacturing was gredually eliminated end the Arsenal's primary mission became materials research. While some industriel buildings were razed, Building No. 97 was converted in 1959 to a materials testing laboretory and capitol equipment facility essociated with the Lester Nucleer Reactor (Building No. 100, HAER No. MA-20-R).

Project Information: This documentation was undertaken in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, prior to base reelignment and closure.

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I. ARCHITECTURAL DESCRIPTION AND MODIFICATIONS

Building No. 97, originally the Locomotive Repair House, ie surrounded by Wooley Avenue (north), North Beecon Street (south), Building No. 292 (HAER No. MA-20-T) (west), and Building No. 100 (HAER No. MA-20-R) - the Lester Nuclear Reactor - (east). It retains much of its orlginal srchitectural eppearance despite extensive interior modificetione during its conversion to a reector Research Laboratory in 1959. The rectangular building, 60 ft. by 1B0 ft., sits on a reinforced concrete foundation, snd rises one story to e gable roof with s high clerestory monitor which stops two beye short of the south end. The roof is likely original and is s riveted steel Fink truss covered in corrugated cement esbeetos. The load bearing masonry walls consist of red brick pilesters which eeperate wide, full-story, 20-ft. beys. The three-bay north (front) facade originally had double hinged wooden doors in the centrel bey, now accessed through e roll-up steel ehutter door. The beys slong the entire length of the eeet snd west elevations originelly contained multi-light steel windows, ss did the south elevation, but msny are now bricked over. Several windows in the centrsl bays on the east side have been modified with air vents, and the windows elong the south (reer) elevatlon end two southern bays elong the west elevation have their bottom halves bricked over. Ornamentation is minimal on this utlliterien building, consisting meinly of corbelled brick heeder end stretcher courses in all bays, and trienguler pilaster and corbelled brick cornice deteil st the north end eouth gable ends.

The interior was constructed es a single large open space with interior pits end reilrosd trscks. Short eections of track are visible in front of the central bey, but no longer enter the building, which hes been divided into s series of small laboretories eccessed from e long centrsl hellwsy. The interior finishes consist of painted cinder block wells, vinyl tile floors, steel doors end door fremes, snd acoustical tile ceillnge. Single story passegeways connect this laboretory with Building No. 292 on the west snd Building No. 100, the Lester Nuclear Reactor, on the eest. The msin entrsnce to Building No. 97 is through the pessegewey from Building No. 292. Building No. 97 serves as the main entrance to the reector.

II. HISTORICAL INFORMATION AND SIGNIFICANCE

Erected in 1920, Building No. 97 documents s period of World War I growth snd expansion in the msnufecture of ermaments end reilwey gun carriege assembly work et the Watertown Arsenel. Designed with s clerestory monitor to augment natural lighting, this building served ss s locomotive msintenance snd repalr shop. Engines snd trsins housed in Building No. 97 opersted on s eyetem of standard gauge railwey trsck throughout the Watertown site, hauling materiels snd psrts from supply buildings to workshope. The line slso connected with the Boston & Meine Reilroed directly north of the Arsensl for transport of srmaments and finished railroad carriages.[1]

In 1959, the building was stripped out and converted to the reector cepital equipment buildlng. As one of two reector support buildings, No. 97 housed leboratories, decontaminstion fscilities, and storsge srees. The bullding still contains ective laboratories, despite the close of the resctor in 1971.

III. ENDNOTES

1. Burns and Bahr, 175. This document comprises the 191 date pegee previously submitted to the Librery of Congress for Wetertown Arsenal, HAER No. MA-20.

IV. BIBLIOGRAPHY

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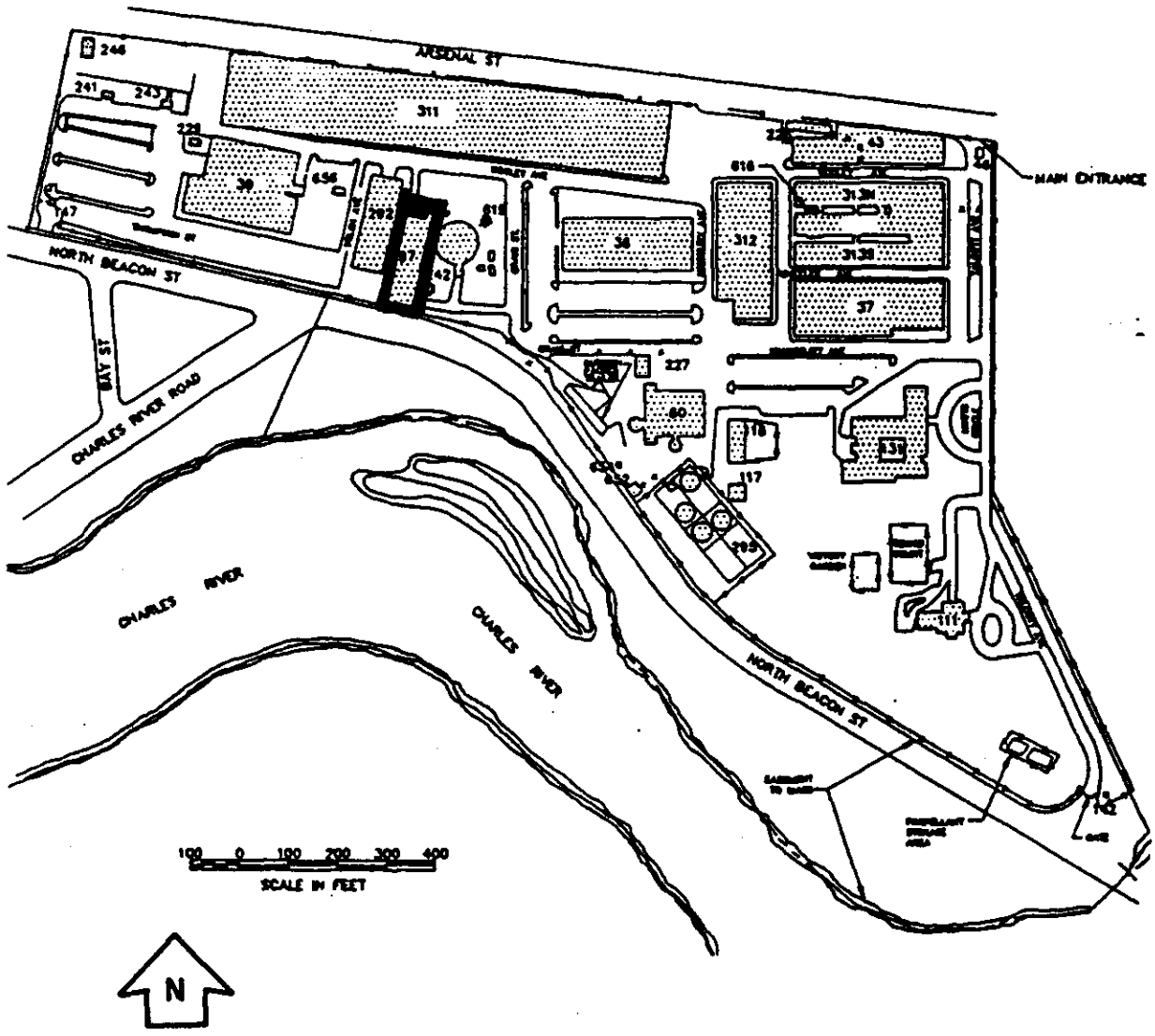
E.G. & G. Idaho, Inc. USATHAMA (U.S. Army Toxic and Hazardous Materials Agency) Preliminary Assessment/Site Inspection for the Army Materials Technology Laboratory. Ideho Feils, Ideho: Idaho Nationel Engineering Laboretory, Merch 1988.

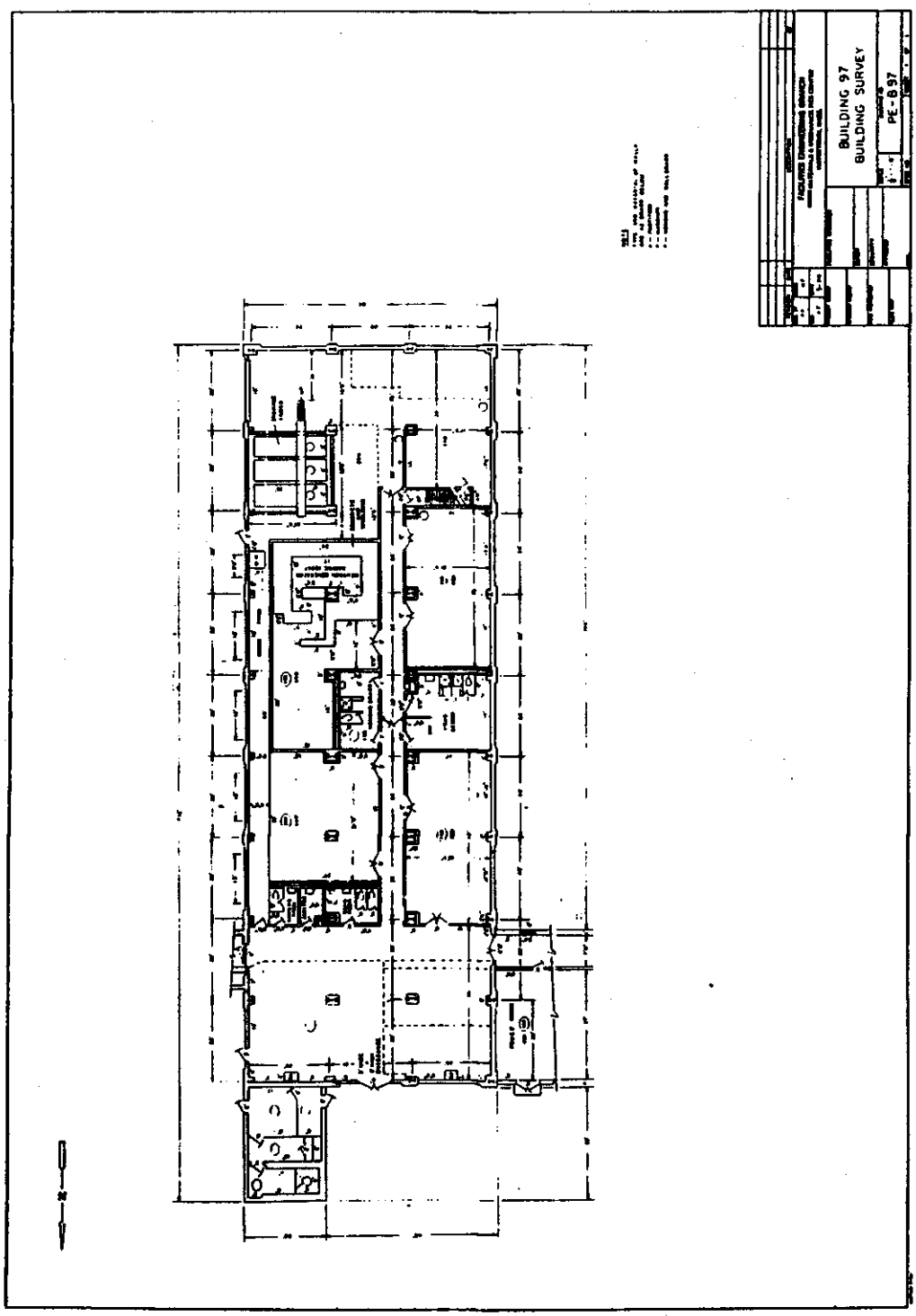
For further sources, consult Burns end Bahr, 1982, previouely submitted to the Library of Congress es HABS/HAER documentetion for Wetertown Areenal, HAER No. MA-20.

LOCATION MAP WITHIN WATERTOWN ARSENAL



Source: E. G. & G., USATHAMA report, 1988.

1984 AMMRC BUILDING SURVEY FLOOR PLAN



Source: Engineering Division, AMTL, Watertown, 1984.

Historic Photograph, October 4, 1944. View of north (front) and east elevations, looking southwest. U.S. Army Photograph: Corps of Engineers, New England Division. File No. 61. (Copy located at U.S. Army Corps of Engineers, New England Division, Waltham, Massachusetts).