

Townsend Water Tower
Lattomus Avenue
Townsend
New Castle County
Delaware

HAER No. DE-24

HAER
DEL
2-TOWSE,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Mid-Atlantic Regional Office
National Park Service
U.S. Department of the Interior
Philadelphia, Pennsylvania 19106

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HISTORIC AMERICAN ENGINEERING RECORD

Townsend Water Tower

HAER No. DE-24

Location: Lattomus Avenue, City of Townsend, New Castle County, Delaware

UTM: Zone 18, E 440410 N 4360455

Quad: Middletown, Delaware

Date of Construction: 1929

Builder: George & Lynch Company

Present Owner: City of Townsend

Present Use: Vacant

Significance: The water tower and associated building constitute a contributing structure and building of the Townsend National Register Historic District.

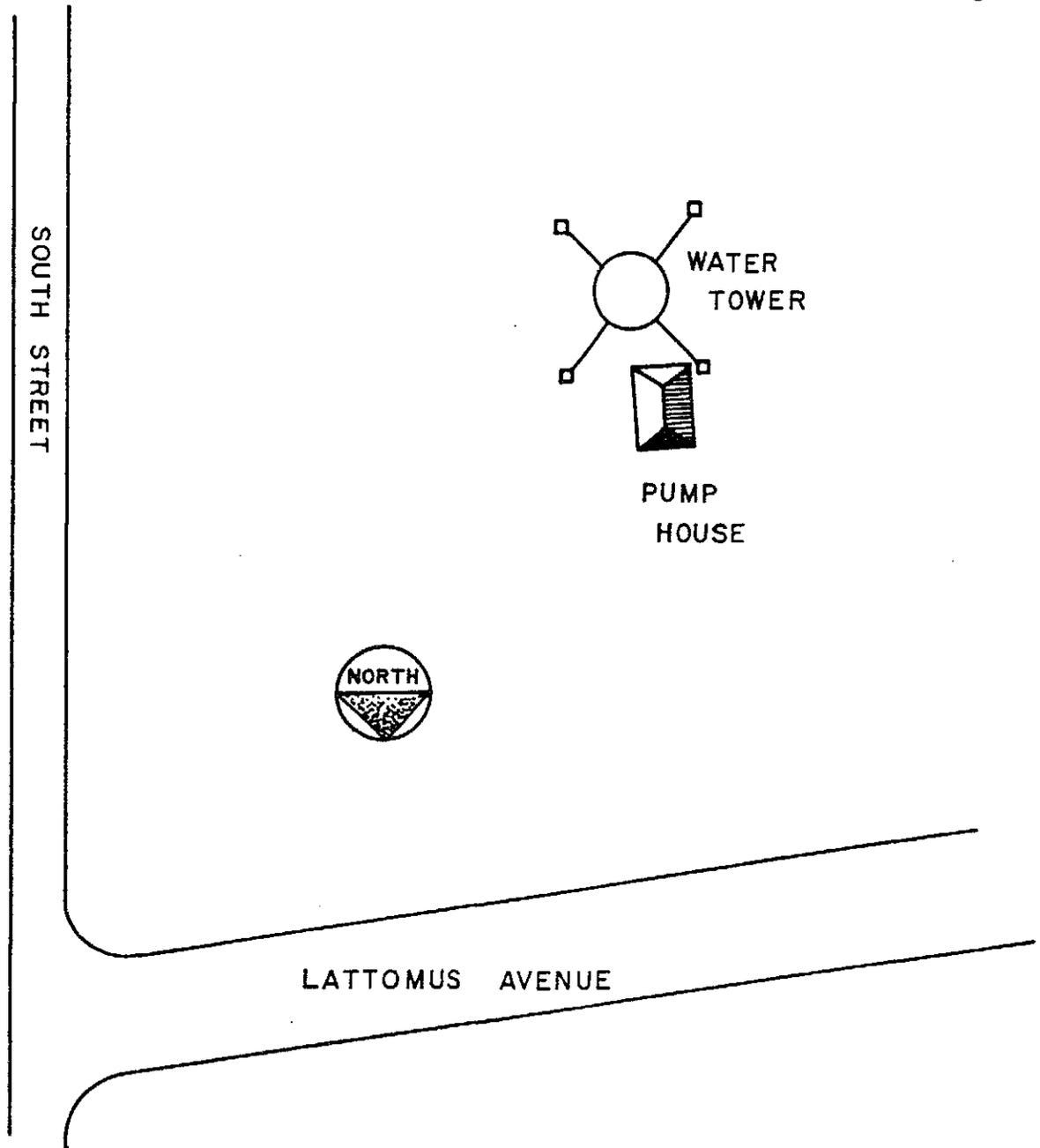
PART I. HISTORY OF THE TOWNSEND WATER TOWER

The Townsend Water Tower and associated pumping station were erected in 1929 by the George & Lynch company to meet the water storage and delivery requirements of the town of Townsend, New Castle, Delaware. The water tower, designed for water collection and distribution, is part of the Townsend utility infrastructure. The Townsend Water Tower design is of a type commonly associated with the early twentieth century installation of municipal water delivery systems throughout the eastern United States. The tower design is based on the concept of gravity-generated pressure and a distribution system reflecting the ratio between tower height and the horizontal perimeter of the water system. The size of the tank is determined by the amount of water that must be deliverable during periods of peak demand and emergency situations. The internal works of water towers of the type to which the Townsend Water Tower belongs employ a float in the tank as a simple regulation device. When the water level in the tank falls below a fixed point, the float triggers a pump engine in an adjacent pumping station. The pump (which is electric in the instance of the Townsend Water Tower) refills the tower tank from an underground water source through a vertical inflow pipe extending upwards from a point directly beneath the elevated tank. When the tank has been refilled to capacity, the float switches off the pump. A vertical outflow pipe is situated adjacent to the inflow pipe and feeds into the water system that branches out from the tower and delivers water to households, hydrants, and other locations throughout the utility's service range. The lantern, a plate-covered opening in the uppermost part of the tank, allows the proper amount of air to enter or exit the water tank in order to facilitate the gravity-forced distribution system.

PART II. DESCRIPTION OF THE TOWNSEND WATER TOWER

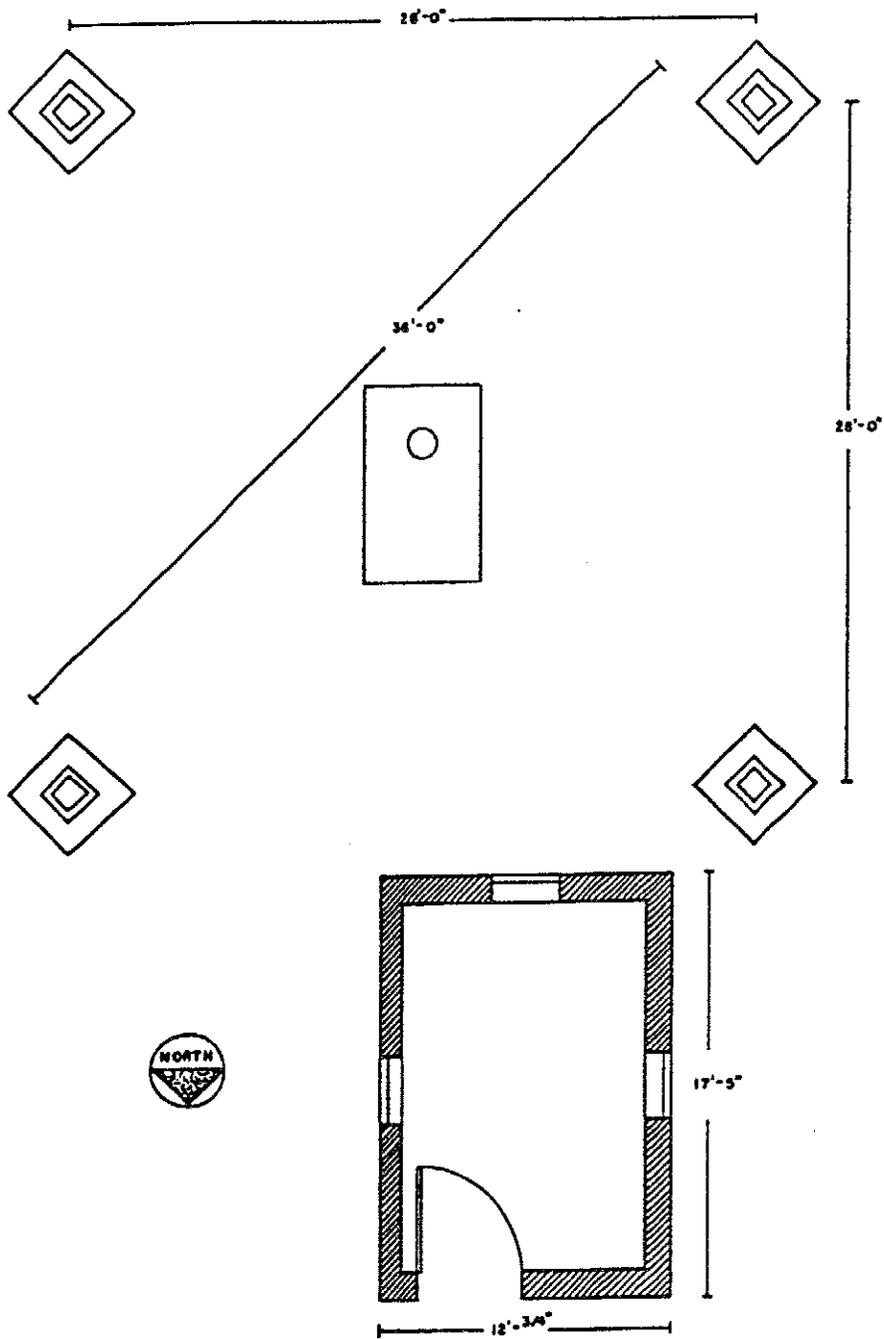
The Townsend Water Tower consists of a round bottom, cylindrical, conical roof tank constructed of riveted sheet metal. Four diagonally-set struts or legs support the tank. Each strut is fashioned with two pieces of channel iron, reinforced with zig-zag braces. Each of the struts is footed on a square chamfered concrete pad, measuring 3'5". The pads rest 23' apart from one another in straight lines from their inside edges; the outer pad edges measure 28' apart. Diagonal lines running northwest from pad face to pad face, and southeast from pad face to pad face each measure 36'. At the intersection of the diagonal lines rests a modern insulated aluminum cylindrical shaft containing inflow and outflow pipes that connect a below-grade well with the water tank above. The tank struts are further stiffened through the use of bar iron "X" tension braces that can be adjusted by screw-threaded turnbuckles in each chord. The tension braces are set diagonally in each of the four faces of the tower. The Townsend Water Tower is strengthened further through the use of flanged horizontal braces that visually separate the tower into three "stories," not including the tank itself. An access ladder to the tank is located on the northeast strut. The ladder, composed of welded steel rungs, joins an iron-railed catwalk running the circumference of the water tank at a point approximately one-quarter of its height from the tank base.

Associated with the tower is a mid-twentieth, one-story, brick Colonial Revival pump house. The seven-course common bond walls, measuring 17' 5" on the north-south facade and 12' 3/4" on the east-west facade, are distinguished only by the use of stretcher flat arches over the door and windows, plain milled-board fascia, and a diagonally battened door. The pumping mechanisms within the structure are modern replacements for the original fixtures. The hipped roof is covered with composition shingles and terra cotta ridge tiles. The structure represents a typical construction type for its era and use.



SITE PLAN

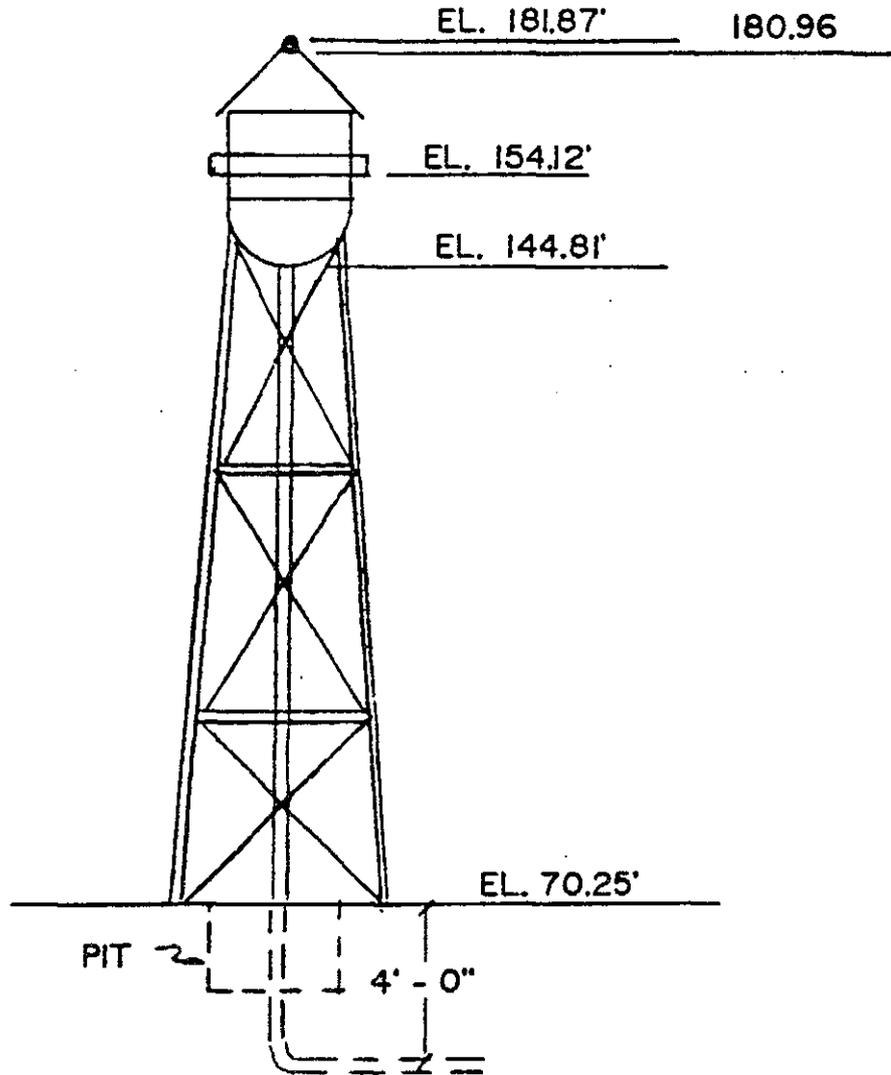
TOWNSEND WATER TOWER
TOWNSEND, DELAWARE



PLAN

TOWNSEND WATER TOWER
TOWNSEND, DELAWARE





EXISTING TANK
NOT TO SCALE