2271
DEC 05 1989

MDC - TRA. MASS.

FORM A - AREA

MASSACHUSETTS HISTORICAL COMMISSION
80 BOYLSTON STREET, BOSTON, MA 02116

Area Letter	Form numbers in this Area
E	13-2, 13-3, 13-4, 13-5, 13-6, 13-7, 13-8, 13-9, 13-10, 13-11

Town Brighton (Boston), Newton

Name of Area (if any)

Chestnut Hill Reservoir H.D.

Present Use back-up water distribution system

General Date or Period 1868-1900

period of significance 1868-1926

General Condition good

Acreage approximately 95 acres

Recorded by Jane Carolen

Organization Louis Berger & Associates

Date February 1984; revised 1989

Photos (3"x3" or 3"x5" black & white) Indicate on back of each photo street addresses for buildings shown. Staple to left side of form.

Sketch Map. Draw a general map of the area indicating properties within it. Number each property for which individual inventory forms have been completed. Label streets including route numbers, if any. Indicate north. (Attach a separate sheet if space here is not sufficient).

UTM REFERENCE
A)19/322290/4688320
B)19/322500/4689080
C)19/322240/4688600
D)19/321800/4689830

USGS QUADRANGLE Newton, Ma.

SCALE 1:25,000

NATIONAL REGISTER CRITERIA STATEMENT (if applicable)

The Chestnut Hill Reservoir Historic District is one of the most important resources included in this nomination, both for its historical associations and the quality of its architecture. The Chestnut Hill facility was built during the first phase in the evolution of metropolitan Boston's water system (1825-70). It was the first major improvement to the system after completion of the Cochituate Aqueduct (Area A) in 1848, and served as the major distribution source for the system for over a century from the mid-ninteenth to the mid-twentieth century.. The district is significant because it represents water supply and distribution technology of the last half of the 19th century, because of the outstanding architectural qualities of its varied architect designed buildings, and because of its central role in development of the metropolitan Boston water supply system. The district possesses integrity of location, design setting, materials, workmanship and association; it meets criteria A and C of the NRHP.

ARCHITECTURAL SIGNIFICANCE Describe important architectural features and evaluate in terms of other areas within the community.

The Chestnut Hill Reservoir complex is located in Brighton, a heavily developed residential neighborhood. One structure, the Sudbury Terminal Chamber (E13-5), is located in Newton. Opposite the reservoir is the campus of Boston College. The reservoir provides a park-like open area for the surrounding community.

The Chestnut Hill Reservoir Area presents a remarkable collection of municipal water related architecture from 1868 to 1900 representing a number of different architectural styles, types of structures, and representative buildings of almost all the 19th century agencies involved in water power. The complex covers approximately 135 acres and consists of the reservoir basin (E13-9) and driveway, three gatehouses (E13-2; E13-7; E13-8) on the reservoir bank, a connection chamber (E13-6), the Sudbury Terminal Chamber (E13-5) and two pumping stations, one for low service (E13-3) and the other for high service (E13-4). Additional structures a garage (E13-11), and a non-contributing pipeyard with four storage sheds (E13-10).

The complex was designed in a number of different architectural styles, i.e. Richardsonian Romanesque, Beaux Arts and Classical Revival, by different architects, i.e. Arthur Vinal (contir

HISTORICAL SIGNIFICANCE Explain historical importance of area and how the area relates to the development of other areas of the community.

Chestnut Hill Reservoir was constructed in 1865 to 1870 as a supplemental distribution reservoi to the Cochituate Aqueduct's (A1-4) Brookline Reservoir (A2-4) and served as the major distribution for the metropolitan water system into the mid-twentieth century. Chestnut Hill Reserboir was constructed by the City of Boston's Water Board and was the first major improveme to the sytem after completion of the Cohcituate Aqueduct (A1-4) in 1848. In 1878 completion of the Sudbury Aqueduct (B5-1) brought an additional supply of water to the reservoir through the Sudbury Terminal Chamber (E13-5). By 1884 Henry Wightman, Water Board engineer, urged the boarc to seriously consider the pressing need for extension of the high service distribution system because of the increased number of towns in the system and therefore increased population. Finally a pumping station at Chestnut Hill (E13-4) was built in addition to the smaller, but higher (in comparison to Chestnut Hill Reservoir) Fisher Hill Reservoir (16-10). The high service pumping station, designed by Arthur Vinal, Boston City Architect from 1884 to 1888, was completed in 1887 and included three steam engines including a triple expansion Leavitt engine (now a National Historic Mechanical Engineering Landmark). A fourth engine, which necessitated an addition to the structure was added in 1898. This additional engine, was the result of the takeover, by the Metropolitan Water Board, of the City of Boston's water facilities. In 1898 the Board began a much needed expansion plan throughout the city which at Chestnut Hill, resulted in the construction of expanded high service facilities; construction of a three engine low service station (E13-3); and the necessary gatehouses needed to provide water from reservoir to pumping stations. By the 1950s upon completion of the city tunnel, Chestnut Hill and its pumping stations began to be phased out and the Lawrence Basin was filled in and sold to Boston College. Today the entire complex is out of service but kept in the ready with modern pumping engines for emergencies.

BIBLIOGRAPHY and/or REFERENCES

Manual of American Waterworks, 1890.
Metropolitan Water Board Annual Reports, 1896-1901
Metropolitan Water and Sewerage Annual Reports, 1902-1904

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, Boston

Community: Brighton (Boston), Newton	Form No: Area Form D
Property Name: Chestnut Hill Reservoir	

Indicate each item on inventory form which is being continued below.

ARCHITECTURAL SIGNIFICANCE:
Wheelwright and Haven, and Shepley, Rutan and Coolidge yet is visually cohesive as well as appealing.
The reservoir (B13-9), thevisual focal point of the complex, was constructed from 1865 to 1870 to supplement the Cochituate Aqueduct's (A1-4) water supply which was drawn from the Brookline Reservoir (A2-4). Using a naturally occurring basin, the reservoir was constructed in two parts, separated by a dam. The western basin, named the Lawrence Basin after the owner of the land, Amos A. Lawrence was filled in the 1950s and the dam demolished but the reservoir still contains the walkway and drive around it and the Intermediate Gatehouse (B18-8) built from 1868 to 1870. A granite, rectangular structure with a gable roof, arched openings and a bracketed cornice, the gatehouse originally connected the two basins of the reservoir and the Cochituate Aqueduct (A1-4) which runs beneath the reservoir.
The Effluent Gatehouse #1 (B 13-7) and #2 (B13-2) are on the banks of the reservoir. Gatehouse #1, near the Cleveland Circle end of the reservoir, completed from 1869 to 1870, dates from the original construction of the reservoir, as does the Intermediate Gatehouse and is also rectangular, of granite construction with a gable roof and arched openings. This two level structure is an elegant classical building. On the street side of the building can be seen its substantial foundation and two flights of granite steps which lead to the actual gatehouse. This gatehouse contained the main control gates for the reservoir and a gate for the Sudbury Terminal Chamber (B13-5).
Effluent Gatehouse #2, on the Beacon Street side of the reservoir, was completed in 1900 to 1901 and designed by Wheelwright and Haven, then Boston City architect. It was constructed of granite in a classical revival style. The small rectangular building has symmetrically arranged arched windows and doors, a fanlight, and a hipped roof with bronze cheneau. The structure was built to supply water to the low and high service pumping stations directly across Beacon Street.
A small, square connection chamber (B13-6) was completed in 1901, on Beacon Street adjacent to the High Service Pumping Station (B13-4). It is constructed of granite with brownstone trim with a hipped, slate roof with a wooden bracketed cornice and was built by the Norcross Brothers of Boston. The structure was constructed to hold a gate chamber used to take water from the Cochituate Aqueduct (A1-4) to the Chestnut Hill High Service Pumping Station (B13-4).
The Sudbury Aqueduct Terminal Chamber (B13-5), located on Beacon Street on the west side of the reservoir is actually in Newton. Completed in 1878, it was the terminus of the Sudbury Aqueduct which was used to supply the water for the Chestnut Hill Reservoir. Although constructed of gray granite like the gatehouses this building was a departure from those restrained classical revival buildings in its geometric massing of main block and wings and multiple hipped roofs and its definitive Frank Furness influence.
As part of an expansion plan for water service the High Service Pumping Station (#13-4) was completed in 1888. Located on Beacon Street on the southern side of the reservoir, this exuberant structure was designed by Arthur Vinal, Boston City architect, in a carefully scaled and detailed Richardsonian Romanesque style and constructed of sand colored granite with brown standstone trim. The building, constructed to house three large steam engines, is 2½ stories, with gabled roofs, a gabled projecting entrance pavilion and a hipped roof tower. In 1897 an addition was added to the west end of the building to accommodate a fourth steam engine. The addition, designed to look virtually the same as the original structure, was designed by Wheelwright and Haven, Boston City architect, after Arthur Vinal's tenure.

(continued)

INVENTORY FORM CONTINUATION SHEET p.2 of 2

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, Boston

Community: Brighton (Boston), Newton	Form No: Area Form B
Property Name: Chestnut Hill Reservoi	

Indicate each item on inventory form which is being continued below.

ARCHITECTURAL SIGNIFICANCE:

The Low Service Pumping Station (B13-3) is located on Beacon Street on the south side of the reservoir adjacent to the High Service Pumping Station (B13-4). It was built in 1889-1901 and designed by Shepley, Rutan and Coolidge in the Beaux Arts style. The building is a restrained white limestone structure, equal in scale to the Victorian High Service Station but providing a justaposition of style and material between the two structures that balances and complements the monumentality of both.

Additional structures in the complex, include a non-contributing pipe yard (B13-10) north of the low service building which contains four wood framed stucco structures arranged to form a courtyard facing west which is blacktopped for parking. Located between low service and high service is a garage (B13-11) built of Roxbury puddingstone dating from ca. 1866. It is a one-story building, three bays wide, with brick segmental arches over all openings.

As Chestnut Hill Reservoir was the focal point for nineteenth and twentieth century water distribution for the metropolitan Boston area, so is the reservoir and its surrounding buildings a focal point for the architecture of water technology. Chestnut Hill is an excellent, intact example of water related municipal structures in a wide range of styles that work well together architecturally as well as technologically.

BIBLIOGRAPHY AND/OR REFERENCES:

The Leavitt Pumping Engine, American Society of Mechanical Engineers, 1973
Original drawings of Low Service Pumping Station, 1898; Gates at Chestnut Hill, 1898 and addition to High Service Pumping Station, 1898, all in Case 19, MDC offices, Somerset St.

VERBAL BOUNDARY DESCRIPTION AND JUSTIFICATION

The boundary is shown in red on the attached two maps: Chestnut Hill Reservoir and Grounds, General Plan, Metropolitan Water Works, Februray, 1905; rev. 1944, 1946 (changes since that time are noted). Scale: 1" = 100'

The boundaries have been drawn to include only the reservoir, embankment and associated buildings. For the most part, the boundaries remain well within the confines of the surrounding streets. The exceptions occur at the southeastern edge where the boundary crosses Beacon Street to include buildings #13-3, 4, 6, 10, 11 which back up to the tracks of the MBTA. The other instance occurs at the southwestern edge of the district where the boundary again crosses Beacon Street to include the Sudbury Aqueduct Terminal Chamber (13-5). This last building is functionally associated with both the Sudbury Aqueduct (Area B) and Chestnut HIll. It has been included with Chestnut Hill because of its strong visual connections.

Please refer to Overview, Section 7: Reservoirs; and Section 8, pp. 4-5 and 7-9 for additional information.

Staple to Inventory form at bottom

NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ **Page** _____

Water Supply System of Metropolitan Boston MPS
Middlesex, Norfolk, Suffolk and Worcester Counties, MASSACHUSETTS

		DATE LISTED
	COVER Substantive Review	Beth L. Savage 01-18-90
1.	Ashland Dam and Spillway	Delores Byrd 1-18-90
2.	Framingham Reservoir No. 3 Dam and Gatehouse Substantive Review	Beth L. Savage 01-18-90
3.	Framingham Reservoir No. 2 Dam and Gatehouse	Delores Byrd 1-18-90
4.	Framingham Reservoir No. 1 Dam and Gatehouse	Delores Byrd 1-18-90
5.	Hopkinton Dam and Spillway	Delores Byrd 1-18-90
6.	Lake Cochituate Dam	Delores Byrd 1-18-90
7.	Medford Pipe Bridge	Delores Byrd 1-18-90
8.	Middlesex Fells Reservoirs Historic District Substantive Review	Beth L. Savage 01-18-90
9.	Mystic Dam	Delores Byrd 1-18-90
10.	Mystic Gatehouse Substantive Review	Beth L. Savage 01-18-90
11.	Mystic Pumping Station	Delores Byrd 1-18-90
12.	Sudbury Aqueduct Linear District	Delores Byrd 1-18-90
13.	Sudbury Dam Historic District	Delores Byrd 1-18-90
14.	Weston Aqueduct Linear District	Delores Byrd 1-18-90
15.	Fisher Hill Reservoir and Gatehouse	Delores Byrd 1-18-90
16.	Forbes Hill Standpipe	Delores Byrd 1-18-90
17.	Bellevue Standpipe	Delores Byrd 1-18-90
18.	Chestnut Hill Reservoir Historic District	Delores Byrd 1-18-90
19.	Marlborough Brook Filter Beds Substantive Review	Beth L. Savage 01-18-90

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Chestnut Hill Reservoir Historic District

MULTIPLE NAME: Water Supply System of Metropolitan Boston MPS

STATE & COUNTY: MASSACHUSETTS, Suffolk

DATE RECEIVED: 12/05/89 DATE OF PENDING LIST: 12/19/89
DATE OF 16TH DAY: 1/04/90 DATE OF 45TH DAY: 1/19/90
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 89002271

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___ RETURN ___ REJECT 1/18/90 DATE

Entered in the National Register

ABSTRACT/SUMMARY COMMENTS:

RECOM./CRITERIA_____
REVIEWER_____
DISCIPLINE_____
DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

___count ___resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

___historic ___current

DESCRIPTION

___architectural classification
___materials
___descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

___summary paragraph
___completeness
___clarity
___applicable criteria
___justification of areas checked
___relating significance to the resource
___context
___relationship of integrity to significance
___justification of exception
___other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

___acreage ___verbal boundary description
___UTMs ___boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

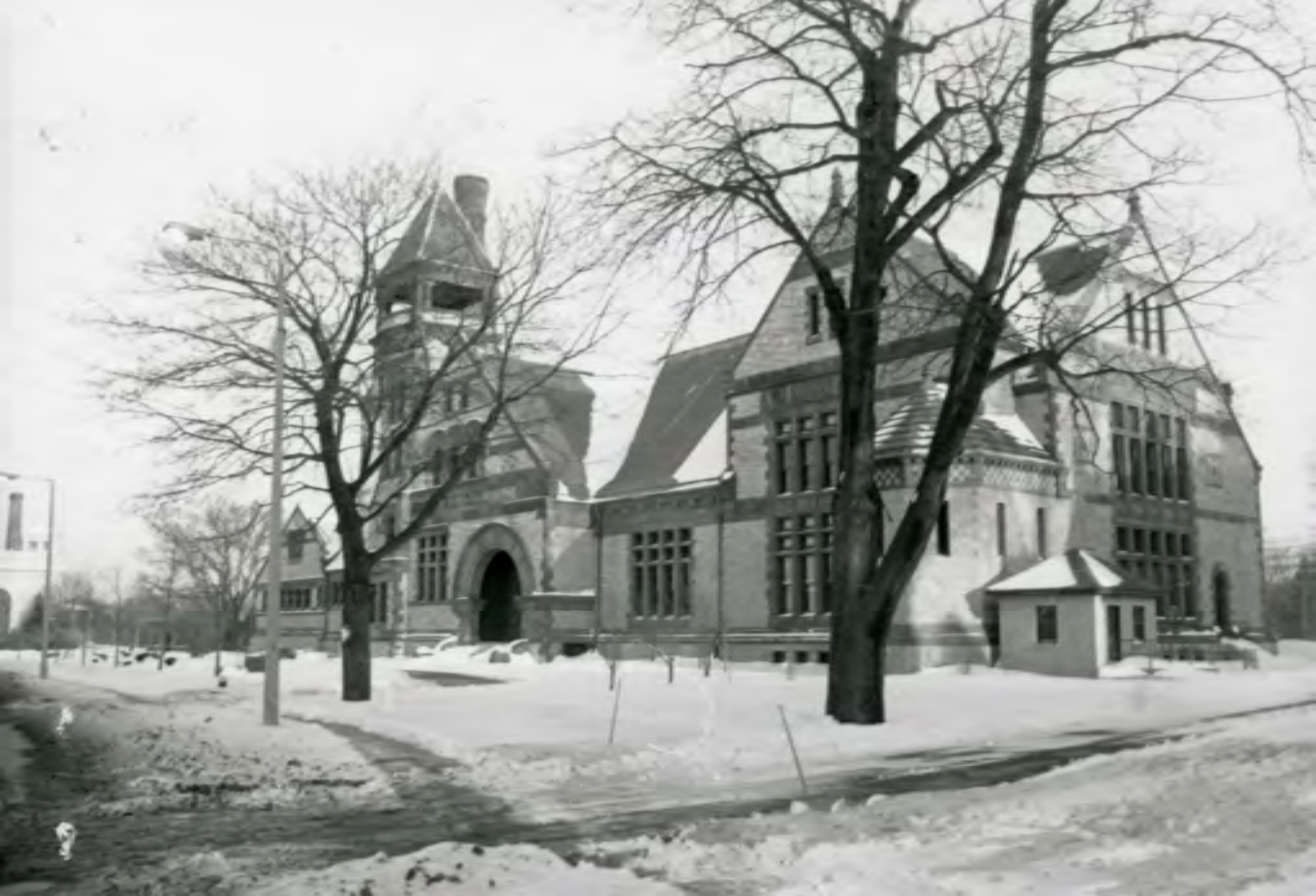
___sketch maps ___USGS maps ___photographs ___presentation

OTHER COMMENTS

Questions concerning this nomination may be directed to

_____ Phone _____

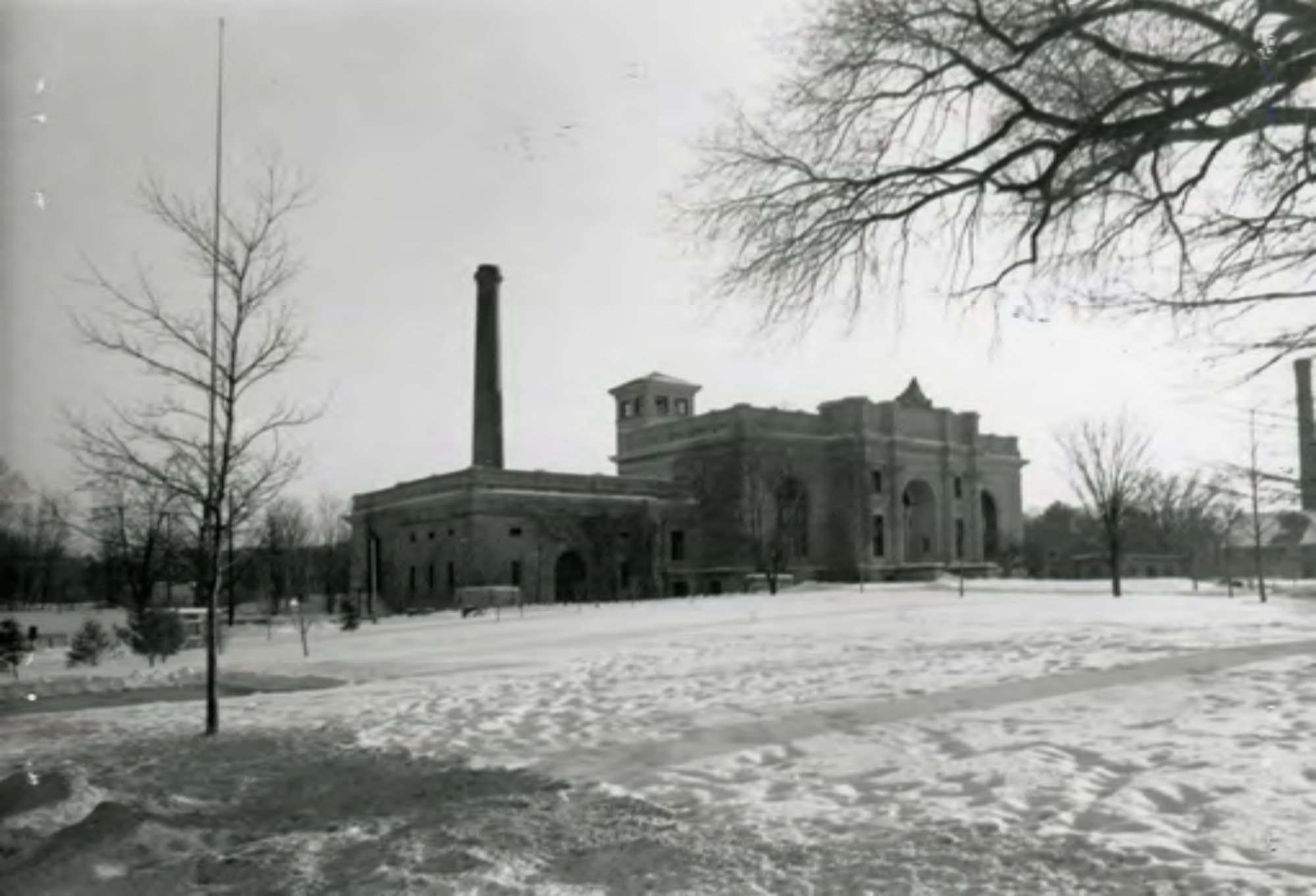
Signed _____ Date _____



Hist. Service Pumping Station, Boston (Brighton) MA
Jane Carolan / Martha Bowers 1984 #13-4
Louis Berger & Ass.

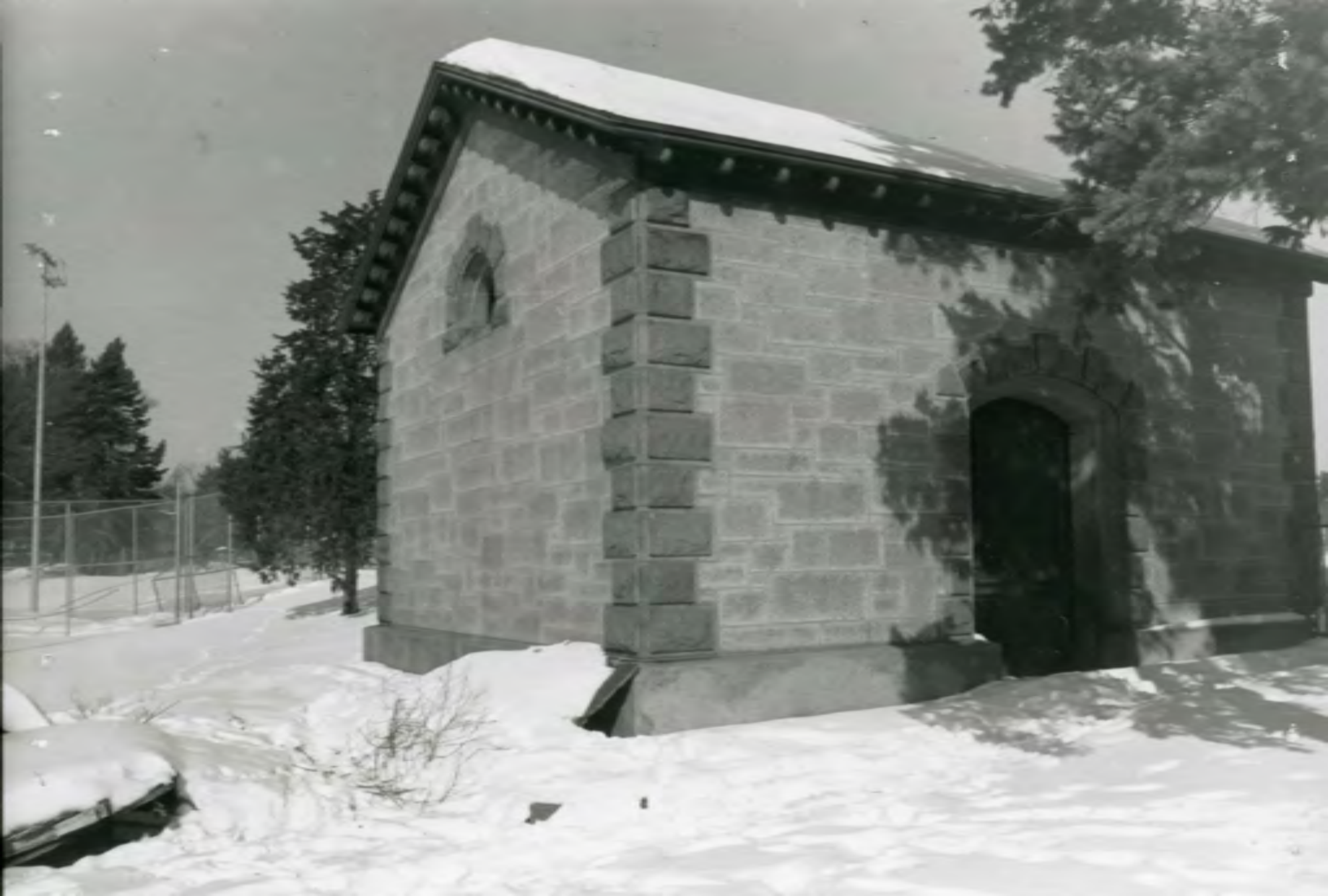
Area E: Chestnut Hill Reservoir U.S.

water Supply System of Metropolitan Boston MA



Low Service Pumping Station, Boston (Brighton), Mo.
Jane Carolan / Martha Bowers 1984 #13-3
Louis Berger & Ass.

Ann E. Chestnut Hill Reservoirs H.D.
Water Supply System of Metropolitan Boston Parks



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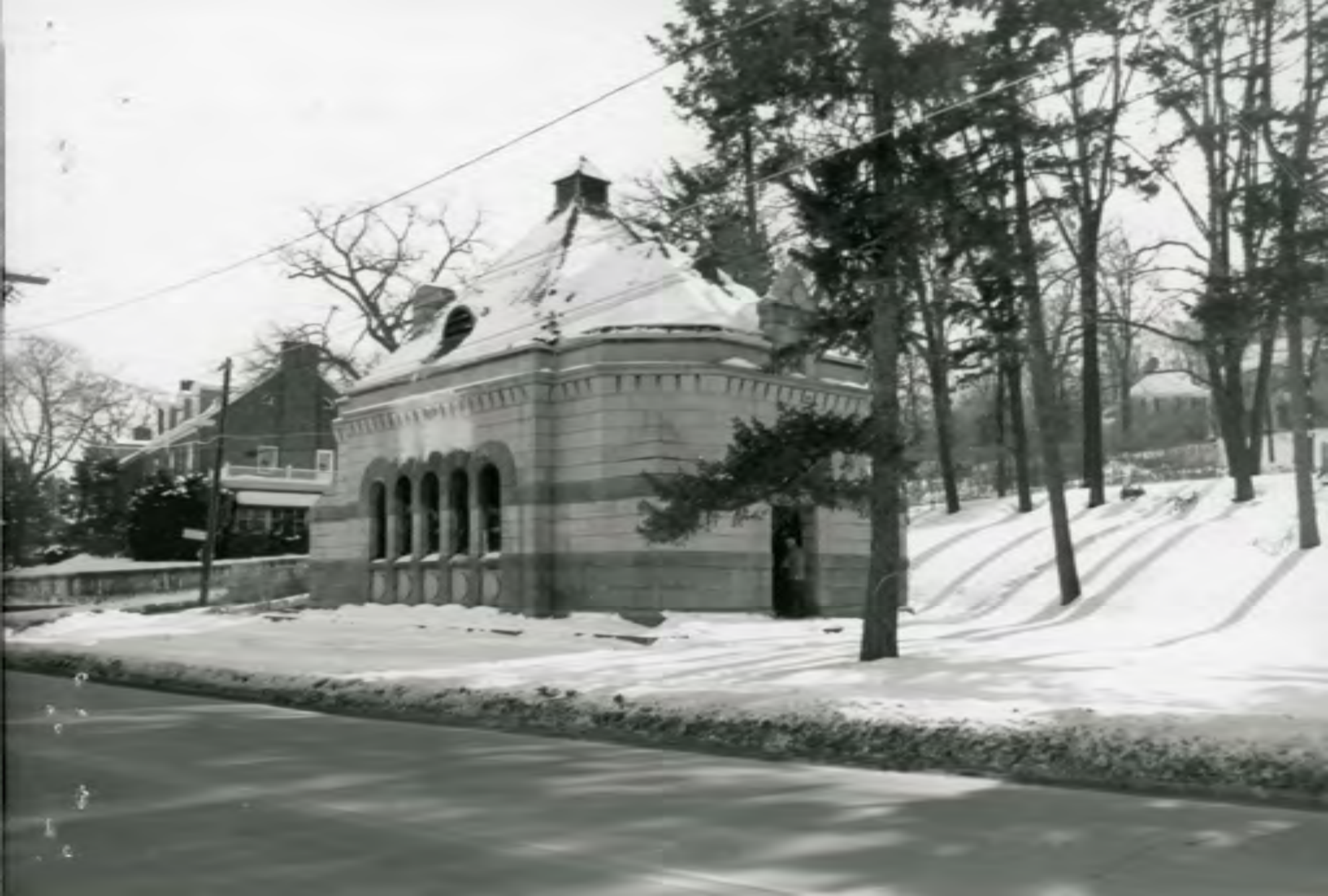
Intermediate Gatehouse, Boston (Brighton), MA.
Jane Carolan / Martha Bowers 1984 #13-8
Louis Berger & Ass.

Area E: Chestnut Hill Reservoir

Water Supply System of Metropolitan Boston MPS



MDC - TRA, MASS.

#13-5

Sudbury Terminal Chorale, Newton, MA.
Jane Carolan/Martha Bowers 1984
Louis Berger & Ass.

Chestnut Hill Reservoir H.D. Area E
Water Supply System of Metropolitan Boston MPS


NEWTON
BRIGHTON
COMMONWEALTH AVE.
BEACON ST.
SUDBURY AQUEDUCT
RESERVOIR AVE.
LAWRENCE BASIN
Filled in 1950's land sold to Boston College
INFLUENT GATE HOUSE
INTERSECTION CHAMBER
COCHITUATE AQUEDUCT
GAGING M.H.
#13-5
Sudbury TERMINAL CHAMBER
INTERMEDIATE GATE HOUSE
#13-8
CHESTNUT HILL AV
Area E
CHESTNUT HILL RESERVOIR H.D.
SHEET 2 of 2
MDC - TRA, MASS.
ACCESSION NO 3944

Chestnut Hill

AREA E

CHESTNUT HILL RESERVOIR H.D. SHEET 1 OF 2

COMMONWEALTH OF MASSACHVSETTS

METROPOLITAN WATER WORKS

CHESTNVT HILL RESERVOIR AND GROVNDS

GENERAL PLAN

SCALE, 100 FT. TO AN IN.

FEBRUARY 1905.
Revised May 26, 1942
Apr. 18, 1946

MDC - TRA, MASS.

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19-123

19-123

ACCESSION No. B 3943

Chestnut Hill

Please refer to the map in the Multiple Property Cover Sheet for this property

Multiple Property Cover Sheet Reference Number: 64500254