

BROOKS MEMORIAL LIBRARY
WATER SYSTEM

Richard H. Wellman
R.D. # 1 - Box # 70
Upper Dummerston Road
Brattleboro, Vermont 05301

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BRATTLEBORO HISTORICAL SOCIETY
P.O. BOX # 801
BRATTLEBORO, VERMONT 05301

Attorney John H. Carnahan, Secretary;
Dear John;

Several years ago there was a meeting at the Wellman home to consolidate information relative to the early Aqueduct Associations, and the subsequent Brattleboro Water Works Company.

The late Justin Holden, and his son Orman, were able to contribute many, little known, facts that complemented the information that Richard M. Mitchell and I had acquired from old ledgers and account books, as well as the early Brattleboro History books.

One desire of this group was that Brattleboro could own and preserve the last remaining "Water House", as a community artifact/ a monument - representing - (the way it used to be done).

Because the ownership of this property is not clear, Mr. Orman Holden thought the best avenue of approach would be to secure title by condemnation. An action that, to the best of my knowledge, was never taken.

The inclosed drawing is rather complementary since the roof has deteriorated, the inside has been vandalized, and the doorway has been sealed up. With no action - time itself, will destroy this last aqueduct artifact!

This could very well be a project for the Brattleboro Historical Society, that every member, and every Brattleboro citizen, could actually see, and appreciate.

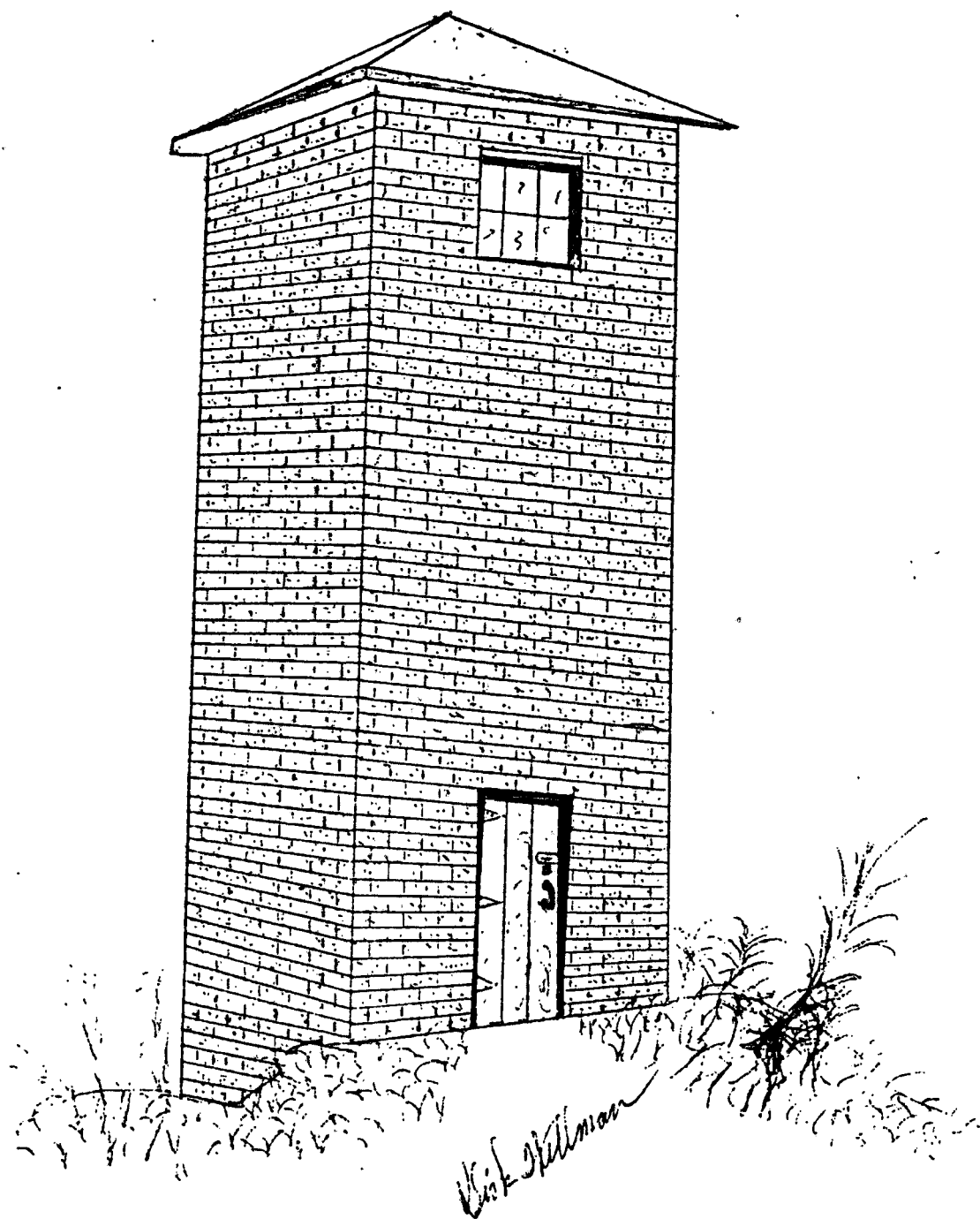
Inclosed please find a copy of - THE EARLY AQUEDUCT SYSTEMS AND THE SUBSEQUENT BRATTLEBORO WATER DEPARTMENT.

Sincerely yours,

Richard H. Wellman

Copy For Brattleboro P.H.O.T.O.S.
RHW.

BRATTLEBORO'S LAST REMAINING "WATER HOUSE"



THE EARLY AQUEDUCT SYSTEMS

AND THE SUBSEQUENT BRATTLEBORO WATER DEPARTMENT

Compiled by Richard H. Wellman - Also known as "THE FRIENDLY PLUMBER".

Information credited to:

Mr. Justin Holden - Deceased Superintendent Brattleboro Public Works.
Mr. Orman Holden - Former Superintendent Brattleboro Public Works.
The original account books of some of the Brattleboro Aqueduct Systems presented to (BRATTLEBORO P.H.O.T.O.S.) by Mr. Edward Richards and by Mr. Orman Holden.

In the very beginning people were willing to travel a distance to obtain their water, and carry it home, however, they soon tired of this task, and desired the 'sweet nectar of life' to flow gently into their homes.

Since Brattleboro is a town of terraces, with all the surrounding hills higher than the village, the aqueduct system, using gravity as a force, was a natural system.

The very first houses in the town of Brattleboro had their own private water supply which was either a spring, that produced a continuous stream by gravity, or a dug well. The wells were stoned up on the sides and either covered with a large flat stone, or a roof type of structure protected the water.

These early wells employed a simple rope and bucket, which could be dropped and pulled up, to secure the precious liquid. Later the sweep (a lever type device for raising or lowering a bucket) was used, and still later the picturesque hand cranked windlass, which wound a rope around a horizontal drum, became common-place. Then finally came the heyday of the hand operated copper lift pump. Children of this era knew well the meaning of the phrase - "Go fetch a pail of water!".

There are still a few old wood pipe logs, copper water pumps, stone and copper cisterns, pinched off lead pipes, stone pipes, slate well covers, and one brick water house still in our town. These artifacts remain - as a monument to the water systems of yester-year.

The early wood pipes were bored out of logs, they were tapered on one end, and chamfered on the other, so that they would fit together. Sometimes a metal band was placed on the outer log to keep it from splitting. If the log was connected to a pump - it was called a 'pump log', and if it was connected to other logs - it was called a 'pipe log'. There were also pipes made out of soapstone, which is quite soft, and can be bored. The soapstone pipes were chamfered out on both ends, and joined with either a lead or a wood nipple. Then finally came the availability of lead pipe, some was manufactured right here in our town. The well known Jacob Estey manufactured lead pipes and pumps, long before he produced the famous Estey Organ.

We can not say for sure which came first - the water supply or the house, however, we do know that water was then, and still is of paramount concern in locating a home.

As the town grew, there was an acute need for more water. The Annals of Brattleboro state that "In 1826, John Holbrook, Asa Green, and Francis Goodhue formed THE WESTERN AQUEDUCT ASSOCIATION, which brought to High Street, the first water supply." The first springs for this association were just south of Western Avenue, where I-91 now crosses the Avenue, there was approximately a mile of wood pipe logs which supplied a divider located on the north side of High Street, just west of Oak Street. This divider was similar to a large pan with one hundred and eighty lead pipes attached to the sidewall of the pan; housed in a building referred to as the (Water House). Each pipe represented one share, and sold for eight dollars. In some instances a shareholder might own several shares so that several small pipes were connected to a larger pipe, which supplied that shareholders property; also later there were fractional shares, so that one small pipe was divided.

As expenses accrued there were meetings of the shareholders, and each share was assessed it's proportional share of the expense. The Western Aqueduct Association was a very well organized and maintained water company, which supplied most of the streets north of Elliot and west of Linden.

The wood pipe logs lasted nearly a century, and were replaced with cast iron pipes, also the water house was changed from High Street to Oak Street, (inside Mr. Henry Brown's garage), where the Winston Prouty center is now.

Following this fore-runner there were several aqueduct associations serving different locations in Brattleboro as follows:

The Brattleboro Aqueduct Company - with fourteen springs on the west side of Orchard Street, and north of Timber Lane, which supplied a brick 'Water House' and divider on the south side of Western Avenue near Union Hill supplying that portion of town.

The Fred Brown divider on Bullock Street received it's water from the Henry Brown divider at 2 Oak Street, which was the Western Aqueduct water divided for Bullock Street.

The Centerville Aqueduct Association with springs on the east side of Orchard Street supplied a small wood 'Water House' on the north side of Western Avenue near Brattle Street, this water served the Centerville area.

The Chestnut Street Aqueduct Association with springs on the Austine School property had it's divider and brick 'Water House' on the north side of Chestnut Street, opposite from Vine Street, which supplied the Chestnut Street area and part of Estey Street. Incidentally, this brick water house still stands reminiscent of what used to be, a monument to good workmanship. This aqueduct association was also known as - Mechanics Aqueduct Company, and referred to as (MAC).

There were also springs on the Austine School property which supplied houses on Maple Street and the Brattleboro Memorial Hospital.

The Elliot Street Aqueduct Association with springs on Spring Street, near the intersection with School Street, with its divider located in the barn of the old Revere House, on the south side of Elliot Street near Main Street. This source accounts for the name, - Spring Street, And in 1844 supplied pure, Wholesome water for the famous Wesselhoeft Water Cure. Doctor Robert Wesselhoeft practiced hydrotherapy, on Elliot Street, where the present Central Fire Station is located. There were large bathing tanks - twenty five feet long by forty five feet wide, and four feet deep; for patients to plunge into, after first having had a sweat bath.

The Guilford Street Aqueduct Association, with springs on the hill, west of where Memorial Park is now. There may not have been a divider on this system, since there were only five houses on this association.

The Prospect Hill Aqueduct Association, with its source on the hill west of the First National Shopping Center, and its divider was in a building on Central Street near, what was known for years, as - Wright's Grocery Store, supplying the Prospect Hill Area.

The Northern Aqueduct Association, with its source about 100 yards downstream from the dam of the Asylum Pond, and north-west of the Brattleboro Ski Jump. This system had its divider in a brick (Water House) located between Linden Street, Putney Road, and the Common, supplying that area, of our town.

The Southern Aqueduct Association, supplied South Main Street, Clark Street, Canal Street, and Reed Street. This source and divider location, at this time, are unknown; however, the source may have been on the hill near Governor Fuller's Estate - (Now Eden Park Nursing Home).

The Hines Aqueduct Association, with springs on Hines Hill, later known as Chestnut Hill, was unfinished by Isaac Hines, and was sold to George Crowell in 1882. This Aqueduct Association was the very beginning of what is today The Brattleboro Water Department. Initially, this system supplied houses in Forest Square - (Cedar, Spruce, and Myrtle Streets) however, when the Chestnut Hill reservoir was placed in operation, in 1884, the system was expanded to include the large area east of Spruce Street, north of Elliot Street, and south of Bradley Avenue. Included in this expansion were Brattleboro's first fire hydrants on Main Street. This water system was often called (The Crowell Water Works), and came to be known as The Brattleboro Water Works Company, with Mr. George E. Crowell, owner and his son Christie, as manager. A new supply line from springs in the area where the Country Kitchen Restaurant is now, in West Brattleboro, was connected with the Chestnut Hill reservoir. By 1890 The Crowell Water Works had expanded southward to Pine Street, and Esteyville area, and westward through West Brattleboro.

Brattleboros' thirst was not satisfied even with the new supply line added to the Chestnut Hill reservoir, so Mr. Crowell developed a steam pumping station on the West River Road, near where I-91 now crosses the West River. This steam pumping station pumped the West River water up into the Chestnut Hill reservoir, and it became operational in August of 1893.

As the years passed, The Brattleboro Water Works Company gradually supplied more and more houses, and the many Aqueduct Associations provided fewer. About the turn of the century, Mr. Crowell, desiring to improve the quality and the quantity of the water, started to search for a plentiful source of pure wholesome water; that would flow by gravity into the arteries of his water system. The Pleasant Valley reservoir, with flowage rights from Sunset Lake, and Stickney Brook was the result of that endeavor.

In 1905 construction of a sixteen inch transmission Main from Pleasant Valley to the Creamery Bridge was started, and in the same year the Town of Brattleboro considered purchasing the Water Works Company for 275 thousand dollars. The voters rejected the proposal, so the system remained a private company.

The town again considered purchasing the system , in 1909, when the purchase price was lowered to 260 thousand dollars, however, once again the voters declined the offer.

Then in 1925, when the purchase price had inflated, to a whopping 525 thousand dollars, because of the additions at Pleasant Valley, the Town voted to purchase. The system had grown to include about 22½ miles of pipes and 116 fire hydrants.

In keeping with the times, and to meet the increasing water demands, the dam at Pleasant Valley Reservoir was raised ten feet, in 1954, which increased the storage capacity to 140 million gallons, and a second sixteen inch transmission Main from Pleasant Valley, to the middle of town was constructed.

After several years in a row, considered to be the driest on record in this area, a new pumping station was erected in 1965, This new pumping station, on the Retreat Meadows, is not very far from where Mr. Crowell had his steam pumping station, half a century before.

This new pumping station pumped water from three gravel packed wells, and was first used during the exceedingly dry summer of 1970.

Much to the dismay of all Brattleboro the water from the pumping station contained small quantities of the minerals manganese, and iron, which when exposed to the air, as it is when drawn for use, caused the water to be discolored and would actually stain clothes in the laundry. Therefore the new pumping station was used only in an emergency.

The ever increasing demand for more water, in the 1970's called for some conservation measures. The large quantity users, and the multifamily houses had been metered for some time, then in 1977, Mr. and Mrs. homeowner became introduced to a water meter. This action did curtail lawn watering and did encourage fixture repair that wasted the valuable liquid.

The Well Water Treatment Plant was completed in 1979, and produced a supplemental source of pumped, chlorinated, and filtered water; that cost, the user, much more than if the water came from Pleasant Valley.

The Brattleboro Water Department owns most of the land around both Sunset Lake and Pleasant Valley Reservoir, that is in the watershed, and controls the water rights on the rest of that land.

During certain weather conditions, technically called "thermal inversions", the water in the reservoir is said to (turn over), which causes high turbidity for short periods of time, until this roily, muddy condition can settle.

There are three chemicals used to treat the Pleasant Valley water: copper sulfate, chlorine, and polyphosphate, however, there is no physical treatment to the water before it enters the distribution system. A proposed filtration plant, that had a 4.7 million dollar price tag, in February of 1985, was over-whelmingly defeated.

The average daily use of water, by about 24 hundred customers of The Brattleboro Water Department is over 2 million gallons a day.

The pipe system has grown to about 50 miles of pipes, which supplies in addition to the regular customers: 236 public fire hydrants, as well as several sprinkler systems, and private hydrants.

Water is the most important necessity of life, and oh, my friends how we wish that we could still boast, as Doctor Wesselhoeft once did, when he wrote: - "I selected Brattleboro, as the site of my hydrotherapeutics because of the climate, and because the water here is the purest of several hundred springs that I have tested from Virginia to the White Mountains."