

BRAINTREE ELECTRIC LIGHT DEPARTMENT

Pre-Development Feasibility Study



APRIL 2014

Submitted to:

TOWN OF BRAINTREE

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Below: The Braintree Electric Light Department, view looking north (1941). Source: "*Images of America - Braintree*", John A. Dennehy, 2010.



PURPOSE OF THIS REPORT

The Braintree Electric Light Department (BELD) Pre-Development Feasibility Study follows a community engagement initiative that was conducted in 2010 by volunteers from the Community Design Resource Center-Boston (CDRC). This initiative identified community priorities as they related to the potential redevelopment of the former Braintree Electric Light Department (BELD) property located at 44 Allen Street in Braintree, MA.

A number of conceptual alternatives for the site's rehabilitation were proposed in terms of use, design, and site organization. Community priorities that emerged from the engagement led to a preferred plan that showcased the beauty of the river, established a cohesive place, utilized the existing buildings, and established a quiet, beautiful setting for the town. Once the community visioning process was completed, the 1.6 acre site was transferred from BELD, the municipal utility company that generated electricity on the site from approximately 1892 through the early 1970's, to the Town of Braintree.

A community-wide public meeting was held in September 2013 at Braintree City Hall for the purpose of presenting this Pre-development Feasibility Study by the consultant team, led by Gamble Associates and CityVisions Associates.



Above: Power was generated at the Braintree Electric Light Department from 1892 until 1992. The large building in the middle of the photo with the smokestacks is the Boiler Room which was demolished in the 1990s. (Image courtesy of John R. Sullivan).

This Pre-development Feasibility Study builds on the initial community engagement initiative from 2010. The team identified barriers to redevelopment as it relates to the physical, environmental, structural, and economic conditions of the site. Information in this report is intended to aid the development community in understanding the existing conditions reuse or new development on the property.

The Town of Braintree and the surrounding area has seen much progress in redevelopment since 2010. The rezoning of a portion of Braintree-Weymouth Landing (adopted January 2011) across the river is already spurring new infill and transit-oriented development. The purpose of the zoning was *"to establish a specific zoning district for the unique needs of small mixed use commercial area that spans two municipalities"*. Even though private investment will contribute

most significantly to the physical character of the Landing, the rezoning has signaled to the development community that these municipalities are willing to entice development through regulation and public investments. The recently completed \$2.4 million pedestrian improvements funded through a Public Works and Economic Development (PWED) grant at the Landing are already attracting new businesses, residents, and tourists to the area.

Braintree was awarded a 2012 National Park Service grant to advance planning for the Monatikquot Riverwalk – a continuous river trail that connects area assets to the downtown core. The 34 letters of support written on behalf of the grant demonstrate the level of community enthusiasm for development on the waterfront. With enhanced transit connections to Boston via the commuter rail station at Weymouth Landing, the entire district is becoming increasingly attractive for redevelopment. The rehabilitation of the site at 44 Allen Street will further these initiatives and mark a significant milestone by transforming a former industrial site that has been fallow for nearly a generation.

Time previously spent cultivating community input and seeking consensus about ideas for the former BELD property has been invaluable for arriving at a viable redevelopment plan. In this respect, the three reuse scenarios identified in the CDRC report were important to begin the conversation. At the same time, these concepts that concentrated on Arts and Culture, a Conference/Wellness Center and an Active Adult Community were conceptual in nature. Through this effort, the land use program and site plans have been tested for market feasibility. This study focuses on a development plan that is chiefly residential in use with some commercial spaces. It also identifies existing opportunities and barriers that remain in order to transform the vacant, former industrial property into a vibrant and economically-sustainable community asset for generations to come.

The current and timely priority for the Town of Braintree and overarching purpose of this Pre-Development Study is to identify and amplify the site's intrinsic assets with appropriate consideration for the conservation, preservation, and physical appeal of the site. The Town of Braintree has expressed that this plan - and the principles that created it - serve as a blueprint for the site's redevelopment.

*THE REHABILITATION OF 44 ALLEN STREET
WILL MARK A SIGNIFICANT MILESTONE BY
TRANSFORMING AN UNDERUTILIZED FORMER
INDUSTRIAL SITE INTO A RIVERFRONT GATEWAY.*

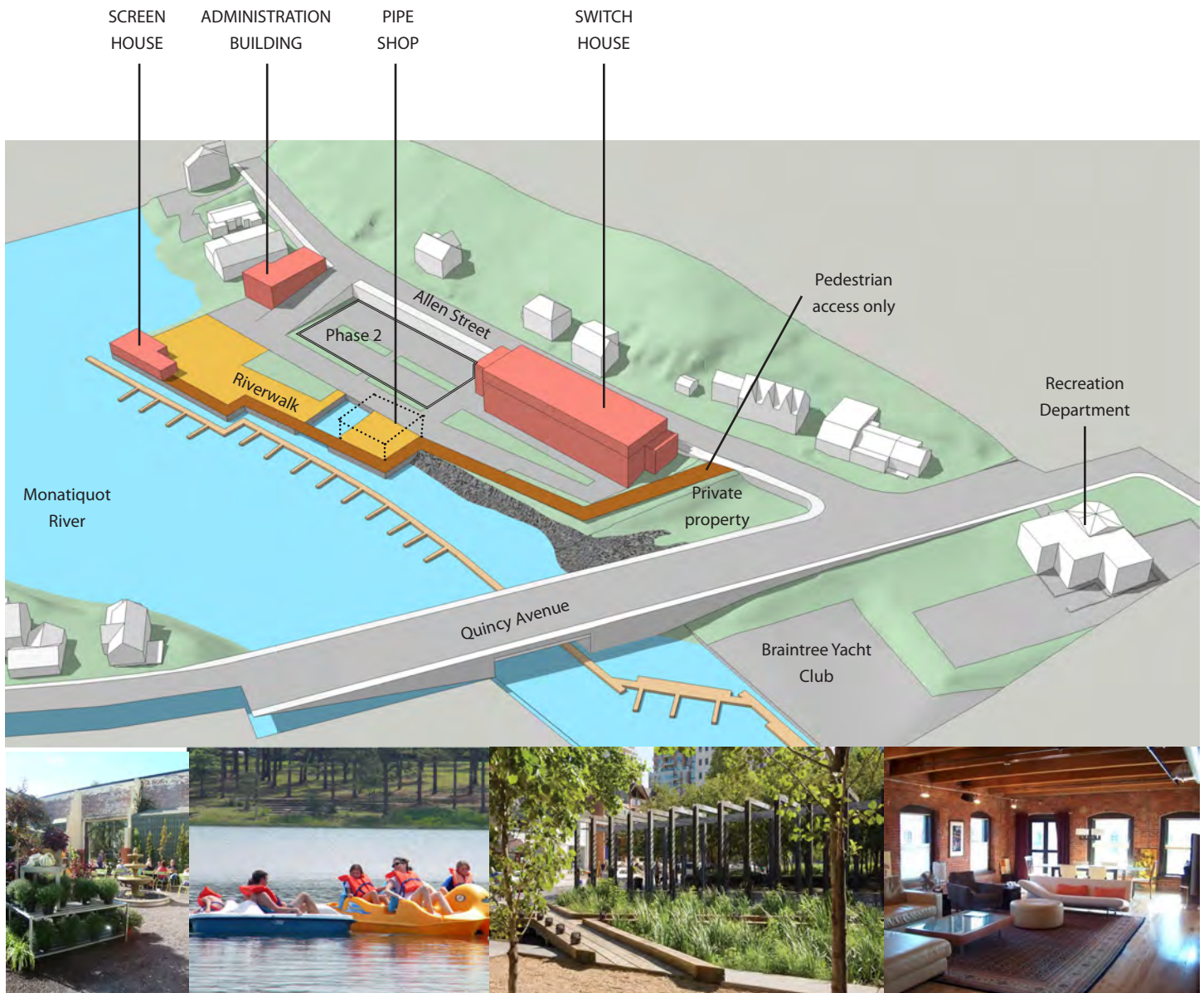


Top: Existing images of the Monaquot River and the Screen House (left), the former Administration Building (center), and the Switch House (right). Above: Lower level of the Switch House.

MASTER PLAN

The Master Plan proposes reusing the existing buildings as a mixed-use project. The first phase of development includes converting the Switch House - the largest building on the site - into 8 – 11 units of housing. Covered parking for the units is accommodated below the building. An extension of the Monatiquot Riverwalk links the Allen Street site to an emerging trail network and creates public access to the river. Pending market demand and the identification of appropriate tenants, two of the three remaining buildings (Screen House and Administration Building) are envisioned for small-scale commercial uses. The renovated buildings could contain uses such as a café, boat rental, and/or other maritime-related programs. The Pipe Shop has been identified for demolition as it lies along the Riverwalk.

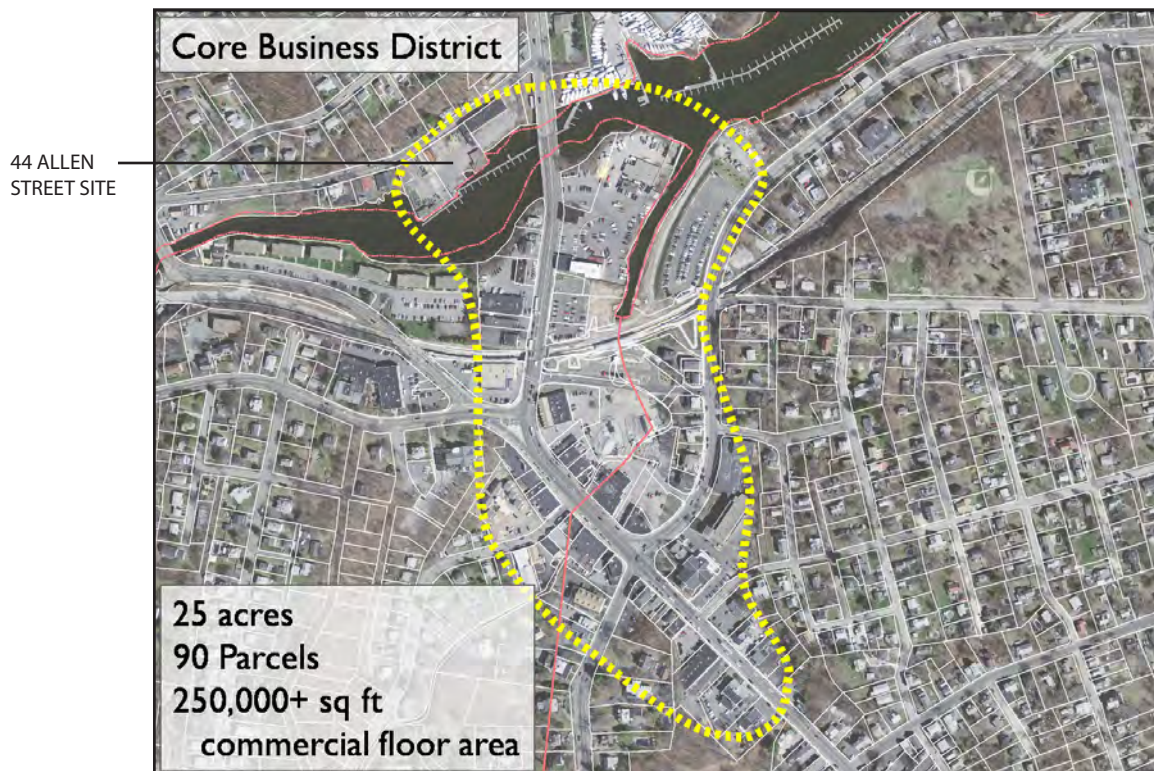
A potential second phase of new construction adjacent to the Switch House is imagined along Allen Street. This development is also envisioned as a residential project with covered parking. When designed in a manner that activates the street and retains views to the water, the combined two phases of development would result in 30-35 units of housing with small-scale commercial uses in the rehabilitated buildings along the new Riverwalk. These uses are consistent with larger planning objectives for the area. Emphasizing a mix of “*primarily residential development and open space*” for selected waterfront properties was highlighted in the Metropolitan Area Planning Council’s (MAPC) Planning Report (2009).



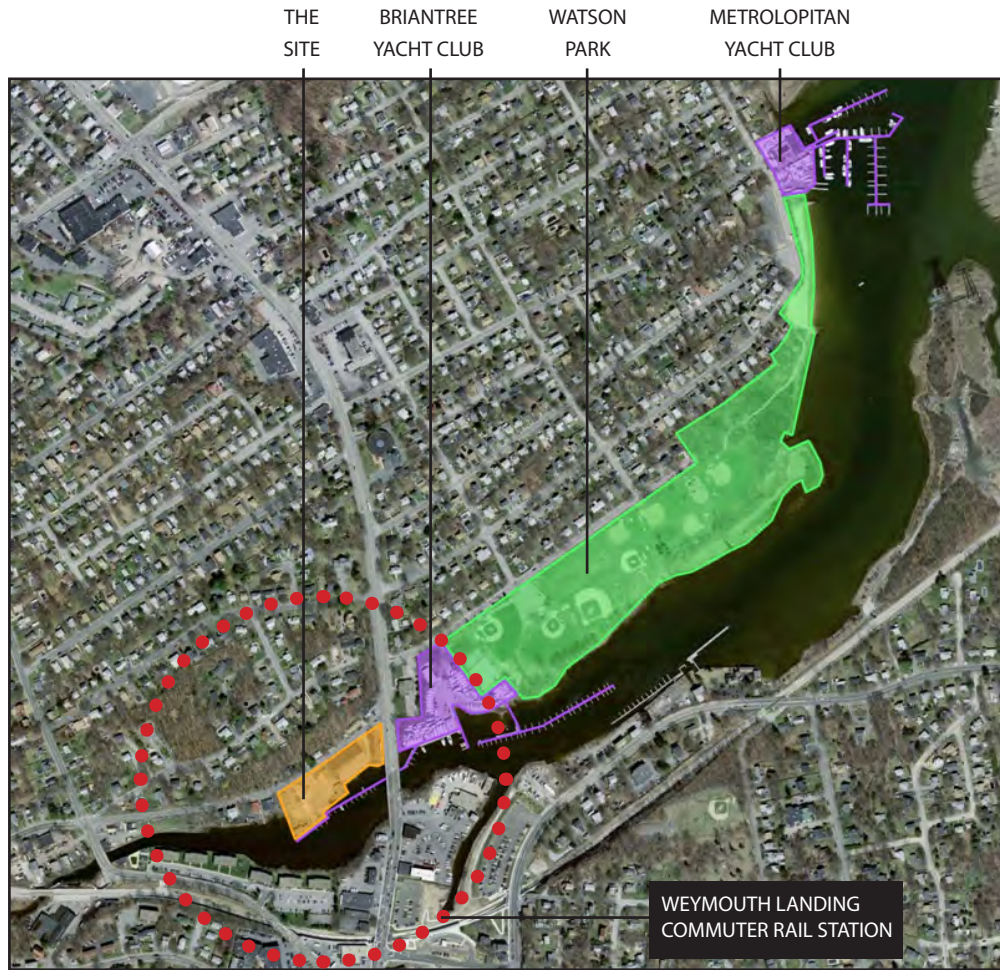
Above: The Master Plan envisions a residential component to the site's rehabilitation, along with a mix of small scale commercial space. The Monatiquot Riverwalk links Allen Street to the western portion of the site.

THE MASTER PLAN ENVISIONS A MIX OF RESIDENTIAL USES COMBINED WITH SMALL SCALE COMMERCIAL SPACES WHICH HELP TO ACTIVATE THE RIVERWALK.

The Allen Street site possesses many encouraging physical characteristics that make it an ideal candidate for an environmentally-progressive development. The benefits of southern exposure, the opportunity to reuse existing buildings, and capitalizing on nearby public transportation are all vital ingredients in low-impact design. The rehabilitation of the property has the potential to be a model for future growth in Braintree and the South Shore and an achievable example of riverfront redevelopment on post-industrial sites. There are also opportunities to harness the site's inherent energies such as solar and geothermal, which would make redevelopment of the property a fitting tribute to the legacy of BELD.



Above: Reinvestment is taking place around Weymouth Landing's Core Business District with rezoning efforts and infrastructure improvements. (Image courtesy of Metropolitan Area Planning Council).



Above: The site is a short 5 minute walk to Weymouth Landing and the commuter rail station.

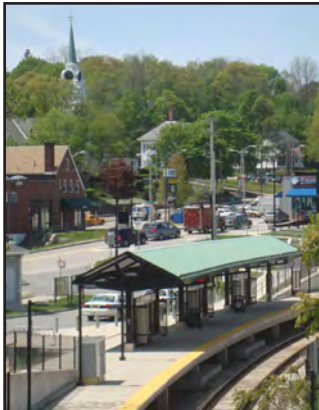
SITE DESCRIPTION

The site is currently owned by the Town of Braintree. The property is 1.6 acres and is roughly rectangular in shape. Historically used for industrial purposes, the property has been vacant for over 15 years when BELD's power generation operations were shifted to the Potter Station facility a few miles away. There are four existing buildings on the property. The largest structure on the site, the Boiler Plant, was demolished in the mid 1990's, and traces of its foundation are still evident. There is a 15-foot sewer easement located in the middle of the site

that runs parallel to the street just south of the Switch House. There is a 12-13 foot grade change from north to south.

The parcel fronts Allen Street to the north; a vacant, privately-owned parcel without structures to the east; the Monatiquot River to the south; and the Starling Furniture Company to the west. Opposite to the site on Allen Street are a small number of homes located on steep terrain. The river frontage to the south contains non-permanent floating marina slips maintained under agreement between the Town of Braintree and the Braintree Yacht Club, which is located on the other side of Quincy Avenue.

Watson Park is a large public park operated by the Town of Braintree. Facilities include baseball/softball fields, tennis and basketball courts, a playground, and



Above: The reintroduction of commuter rail on the Greenbush Line along the South Shore has made locations like Weymouth Landing an attractive environment for development.

walking trails. A splash-pad was constructed in the summer of 2013, and initial work began on the Riverwalk at this time. The offices for the town's Recreation Department are located across the street from the former BELD site at the intersection of Gordon Road and Quincy Avenue. The Braintree Yacht Club, adjacent to Watson Park and the Recreation Department Offices, has a public boat launch in addition to the aforementioned boat slips.

The East Braintree/Weymouth Landing MBTA station on the Greenbush Commuter Line is a short five minute walk from the site. Initiated in 2007, the line provides weekday commuter service to Boston's South Station. There is currently no weekend service. The commuter train trip to and from South Station typically takes less than 25 minutes.

Representatives from the neighborhood have been active participants in the planning process. The East Braintree Civic Association is a respected community organization and helped to shape the principles for redevelopment of the site.

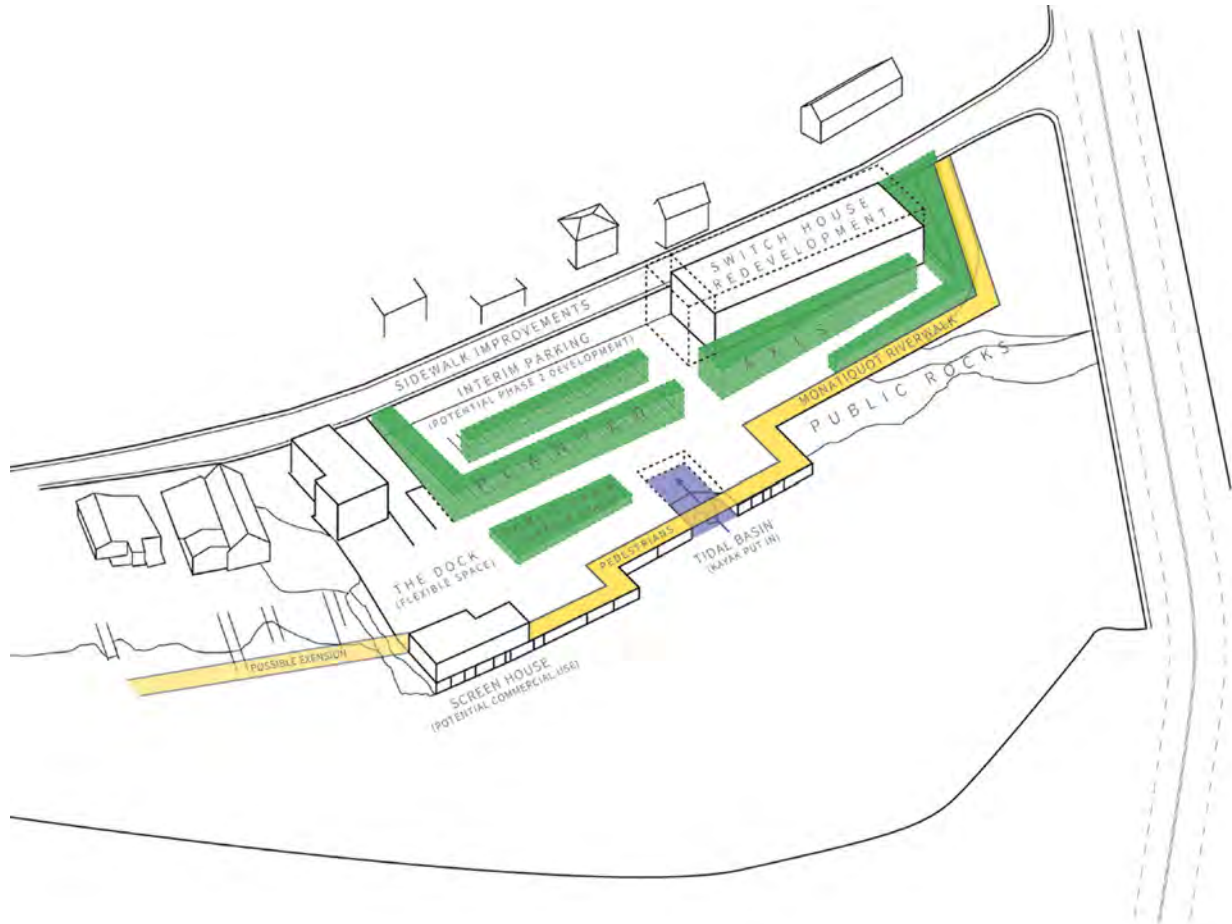
The guiding principles are:

1. Showcase the River
2. Provide a riverwalk connection with public access and parking
3. Create a quiet, peaceful, and beautiful setting
4. Utilize salvageable existing buildings (when possible)
5. Calm surrounding traffic
6. Maintain views for Allen Street neighbors
7. Be an asset for the community.



Above: The former BELD site is approximately 1.6 acres. The facility has been vacant since the mid-1990s.

SITE AND LANDSCAPE DESIGN



In pursuing spatial ideas about the landscape, maintaining flexibility should be a top priority. Development should seek to strike a balance between inviting people of all ages, interests, and physical mobility in order to enjoy passive recreation, while at the same time, respecting that this open space also will likely serve as a front yard to a specific group of residents. It will be important to make the open space read as part of the river edge and not purely identifiable as part of the private realm of the former BELD buildings.

Programming of the open space needs to be carefully considered and should also strike a balance of allowing possibilities for spontaneous gatherings or activities

and strive for organizational clarity. Commitment to any specialized court (such as bocce, basketball, or other) that needs a specific surface, size, and shape in order to be successful must be carefully considered. Watson Park fills many active recreational needs. Hardscape materials such as paving, fencing, and furnishings as well as the planting materials should enhance and not detract from the naturalistic river corridor. Materials of the landscape should be reflective of the industrial and maritime legacy of the site.

While most people would like to have unrestricted access to the riverfront, those who will live in the buildings directly adjacent to the river will likely be less receptive to the use of the property as a major public space or “destination”. Private redevelopment or reuse of the Allen Street buildings will need to analyze potential adverse impacts associated with being so close to the public character of the Monatiquot Riverwalk.

A variety of landscape treatments are recommended that could create a clear separation between public and private space. These interventions include:

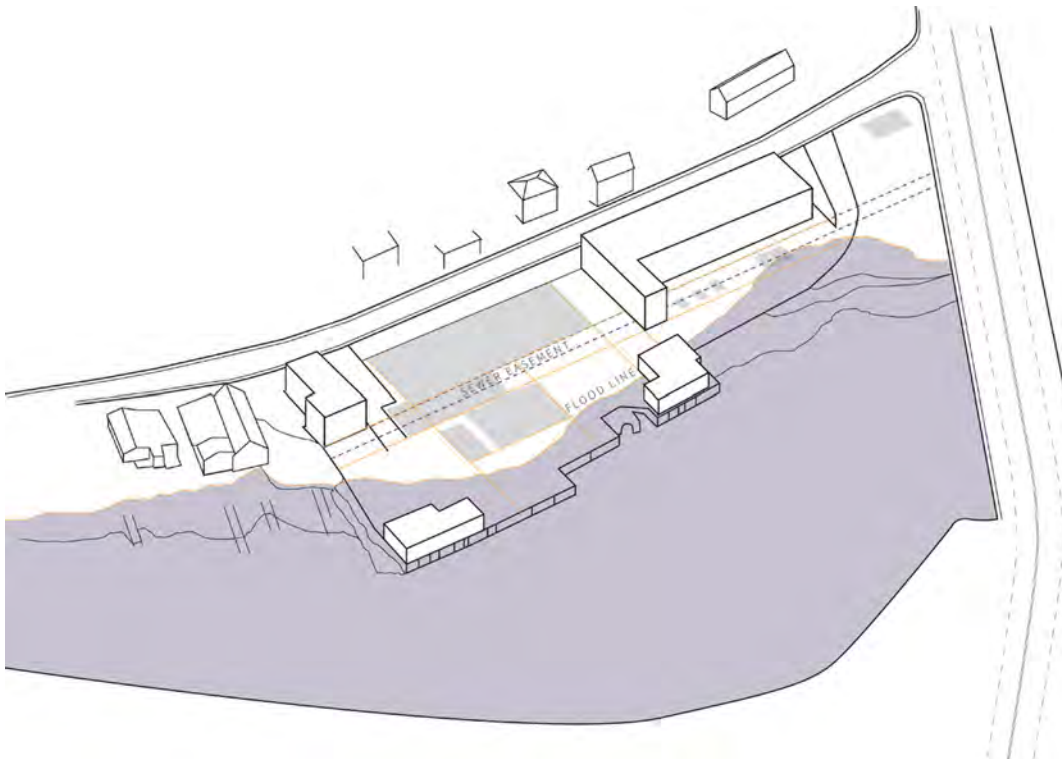
1. A heavily planted zone in the form of natural grasses south of the Switch House. The landscaped buffer will allow for a separation in surface material between the south side of the building and the Riverwalk. The access drive into the parking below the Switch House creates an additional layer of separation.
2. A lightweight trellis border between the landscape strip and the residential units can offer some additional visual privacy while not diminishing water views.
3. A public rocks area on the southeast corner of the site will provide opportunities to view the river while addressing the ebbs and flows of the tide.
4. A kayak dock can be inserted into the site that provides some direct access to the Monatiquot River. The put-in does not require a large area and could be located in the approximate center of the property in the location of the gap in the stone bulkhead. A launching point for non-motorized water craft will help to activate the water and build on the recreational opportunities of the Riverwalk.

*A VARIETY OF LANDSCAPE TREATMENTS ARE
RECOMMENDED TO CREATE A CLEAR SEPARATION
BETWEEN PUBLIC AND PRIVATE SPACE.*

5. A modest-sized open lawn area could accommodate a temporary stage and allow people to bring their own lawn chairs to hear or watch performances. This zone would be less formal and more flexible than an amphitheater approach, which requires a good deal of space and remains underutilized for much of the time. The modest-sized lawn would provide a picnic area with a canopy of shade.

6. While parking for the Switch House can be accommodated under the building, additional surface parking will be needed on the property. The surface parking area need not be entirely asphalt. Parking swales could be inserted to address areas of runoff and increase the amount of permeability.

Vehicular access to the property should be limited to the west side of the site. The existing ramp that is closest to the Quincy Avenue bridge appears to be unnecessary for the site's future density. Utilization of the western access drive—adjacent to the Administration Building—is farther away from the Quincy

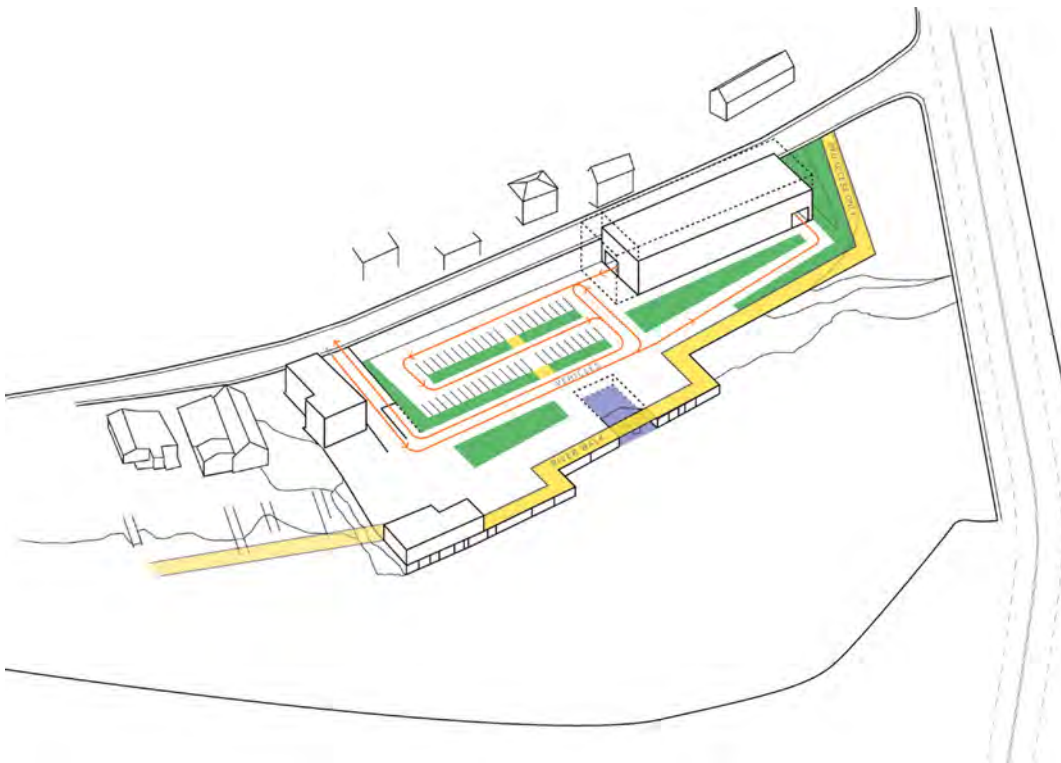


Above: A sewer easement and the flood plain impact where future redevelopment can occur on the property.

Avenue intersection and is in a better location to access the property by car. East Braintree residents have voiced concerns about the traffic congestion at the intersection of Allen Street and Quincy Avenue. Removing one of the two drives into the site will engender a more pedestrian environment for the property as a whole.

Assuming a chiefly residential use, parking for the Switch House can be accommodated in the lower floor of the building and accessed from the south side. The drive to the lower floor of the building, more or less, parallels the existing east-west sewer easement and leads to a large existing garage door on the southeast corner of the building. The large footprint of the former Boiler House (now demolished) works well for interim surface parking.

Refer to Klopfer Martin's "Three Possible Futures for BELD: Landscape Perspective" for an analysis of the open space configuration based on the 2010 CDRC Report.



Above: Parking for the Switch House is below the building with cars entering the site from the west.

BUILDING USES

The SWITCH HOUSE is a two-story brick building built in 1948. The building was used for switch gear and vehicle maintenance on the lower (river) level and offices on the upper (street) level. The high floor to floor ceilings - in addition to its authentic character as a former industrial building - suggests that the approximately 13,500sf Switch House is ideally suited for rehabilitation as opposed to demolition. The structure is in "*relatively good and sound condition, and conditionally acceptable for reuse subject to detailed and comprehensive structural investigations*" (AECOM 2011).

The market assessment confirms initial observations regarding potential new uses for the building. There appears to be a considerable market demand for apartments or possibly condominiums, many that do not have the package of amenities that are offered on this site. A modest number of units could be located in the Switch House, which could occur in a first phase. Based on the location and configuration of the units, the target market is specific to households that are most likely to live in multi-family housing and may include both renters and home-owners.

The recovery of the condo market in the last few years has led to increased sales of units in Braintree. The growing residential market offers few waterfront projects in close proximity to the commuter rail station, and no recent residential developments have the unique character of the Switch House. The decision

Below: The Switch House is approximately 13,500sf total on two levels.



*INCORPORATING A LARGE COMMERCIAL USE
ON THE SITE WOULD CREATE AN INFLUX OF
TRAFFIC AND WAS SEEN AS A NEGATIVE BY EAST
BRAINTREE RESIDENTS.*

to provide units in the Switch House as condominium versus rental warrants additional study. Refer to the Appendix for the full ConsultEcon market report.

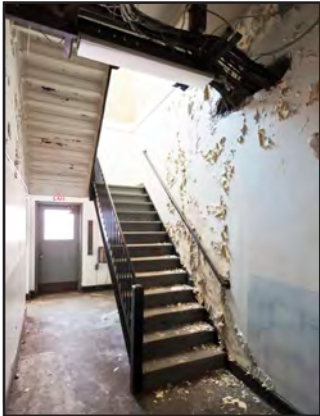
The attributes that make the site attractive for residential uses include:

- Short walk to MBTA commuter rail station
- Short walk to Weymouth Landing commercial center
- Adjacent to river
- Access to Monatikquot Riverwalk
- Access to Watson Park
- Availability of indoor, secure parking
- Mix of good public transportation access to Boston and to I-95,
Route 128 and Route 3
- Potential for interesting urban loft style units
- Quiet location

While some commercial activity in the building is conceivable, the concentration of retail activity is thought to be best located across the river in Weymouth Landing. Recent infrastructure investments (e.g., new lighting, sidewalks, and street tree planting) has made the Landing a more desirable destination. With the exception of the building at the corner of Allen and Quincy Avenue, there is little retail activity on Allen Street; it is mainly a residential road. Incorporating a large commercial use on the site would create an influx of traffic, which was seen as a negative by East Braintree residents.

The proposed scenarios for the reuse of the Switch House as a residential development include renovating the majority of the building as is and/or adding a one-story roof addition. In light of the grade change on the site, it is possible to include parking for the units below the building. If a rooftop addition were added, both the unit count and size of each unit would increase.

The viability of rental units versus condominiums is dependent on a variety of factors including price points, absorption rates, market dynamics, and the use of Federal and State tax credit programs (primarily Rehabilitation Tax Credits and/or New Market Tax Credits). Projects such as the BELD property are often redeveloped utilizing these tax credit programs and other financing mechanisms. Such programs are designed to ease the burden imposed on a project's economics by the costs of rehabilitation and the need for new mechanical and structural systems, as well as the added costs of historic rehabilitation requirements. Use of tax credit programs require that the property remain as rental income for a minimum of five years; for-sale developments are thus not eligible.



Above: Reuse of the Switch House may need to rely on Rehabilitation Tax Credits or New Market Tax Credits to make the project economically-viable for a developer.

However, alterations to the property that do not meet the historic rehabilitation standards – such as an added floor – can be done much more easily if tax credits are not utilized as part of the financing program. For a rather small redevelopment project such as BELD, these differences in financing options, construction costs, and market demand will need to be assessed and integrated into the most effective development structure. However, the market assessment suggests that a number of different options are viable.

Conventional financing will also be required for a portion of the project, and the ability to demonstrate strong market interest and/or pre-sales will be an important determinant of the attractiveness of such financing, as will the terms of the partnership with the Town as the property owner.

In addition to market and financing implications in determining the final residential reuse program, concerns were expressed by abutting property owners that an addition to the building would block views to the river. There was strong resistance to adding anything more than a single story.

Based on all of the above factors, several options have been under consideration for the Switch House. These options include:

OPTION 1: Renovate existing building

8 units @ 700-900sf / unit

Retain the existing structure, reinforce the existing roof, and reconfigure the interior space. This option involves the greatest risk since the condition and capacity of the roof structure has not yet been fully determined. The lower level would have approximately 2,200sf of additional space and enclosed parking.

OPTION 2: Remove and Replace Existing Roof Framing

8 units @ 700-900sf / unit

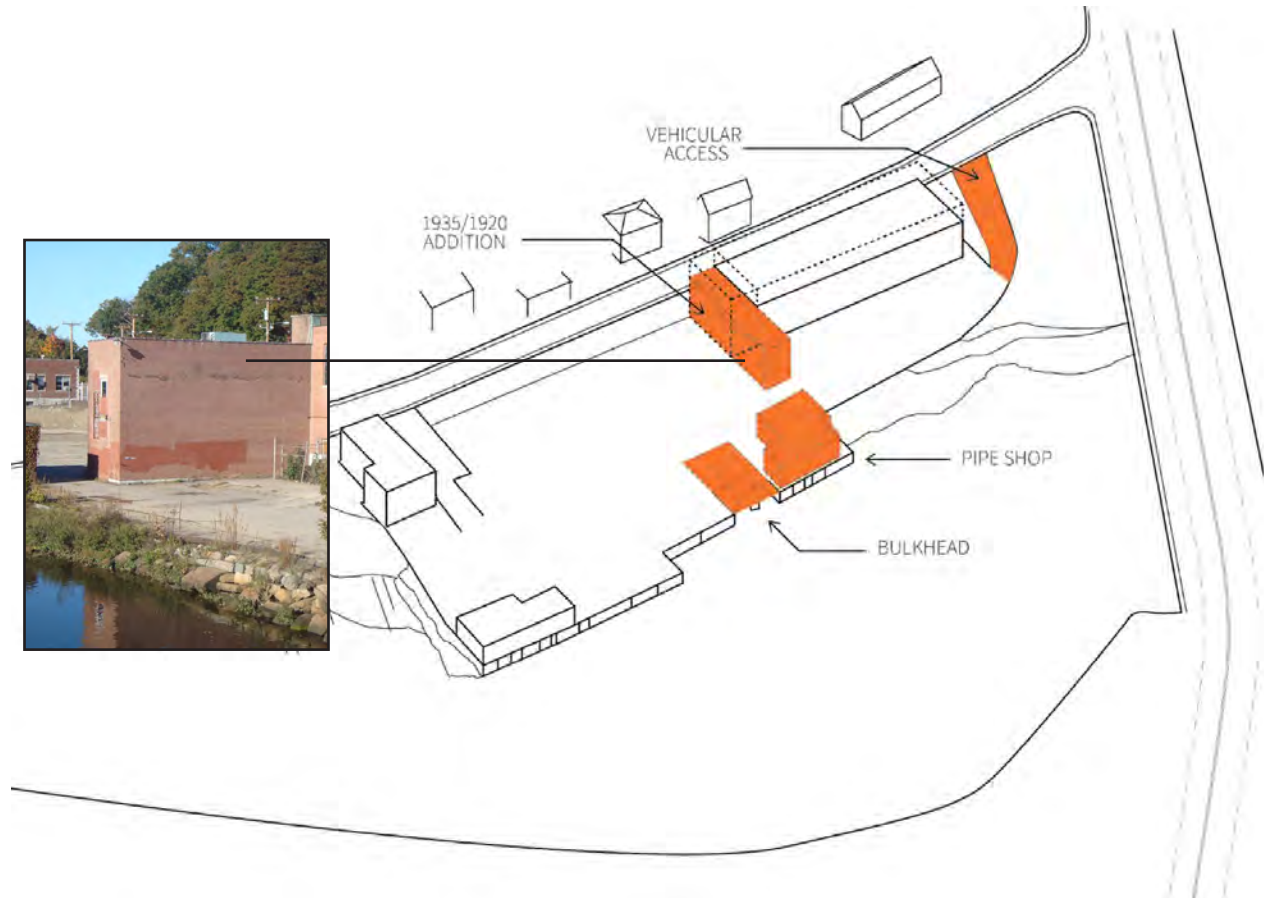
Reconfigure the interior space and add balconies and a green roof. Since all of the framing for the roof would be new, this would reduce the amount of uncertainty due to unforeseen conditions. The lower level would have approximately 2,200sf of additional space and enclosed parking.

OPTION 3: Add one-story addition

+/- 12 units @ 1,100-1,400sf / unit

This option adds a third story to the existing structure. Under this scenario, the existing truss joists at the roof would be removed completely and new framing would be provided. The existing columns that terminate at upper floor level would be extended to the new roof and support both the third floor and roof framing. Balconies and a green or accessible green roof are possible under this alternative. Adding an additional floor to the building is expected to require upgrades to the building for lateral stability.

The proposed reuse plan for the Switch House assumes the demolition of only the western-most portion of the structure. This wing was identified as structurally unsound (AECOM, 2011). The area where the former Boiler House was located (just west of the Switch House) consists of concrete slabs on grade, traces of the foundation walls, and gravel. This expansive area has been identified for surface parking in Phase 1 and the site of future development in a potential Phase 2.



Above: A small portion of the Switch House has been identified for demolition, as well as the Pipe Shop.

While the full demolition of the Switch House and other buildings on the site would broaden the possibilities for new development or open space, the community consensus strongly favored honoring the industrial legacy of the site. Building reuse would also demonstrate Braintree's resourcefulness within the development community and the community at large. There are few remaining vestiges of Braintree's maritime or industrial past; therefore, a careful and purposeful rehabilitation of the existing buildings are a meaningful and sustainable alternative to new construction.

***THE COMMUNITY CONSENSUS STRONGLY
FAVORED HONORING THE INDUSTRIAL LEGACY
OF THE SITE.***

ADMINISTRATION
BUILDING



SCREEN
HOUSE



PIPE
SHOP



The ADMINISTRATION BUILDING is a two-story, 4,000sf structure. The early-twentieth century, neo-classical building formerly housed administrative offices for BELD. A lower level garage/maintenance area was utilized mainly for storage of cable-type materials. An in-depth structural analysis has not been conducted on this building. The Allen Street elevation and other exterior walls appear to be in generally good condition. The scale of the building and its relationship to both the street and the river suggest that the building would be well-suited for a small commercial use. The shell of the building would also work well as an entry foyer into a Phase 2 development.

Of the four existing buildings on the site, the SCREEN HOUSE is closest to the river, extending out over it. The building was used to screen water discharged from the Boiler Plant. The poor condition of the building makes it less likely for



Above: The Screen House, located on the southwest portion of the site, has a cantilevered concrete walkway that extends out over the Monatiquot River.

reuse. There is interior and exterior damage caused by water filtration. In addition, the building sits within the flood plain, and its alignment rests along the trajectory of the proposed Monatiquot Riverwalk. Nevertheless, the views from the building are remarkable, and possibilities should be pursued that preserve the shell of the building and that incorporate amenity spaces to activate the Riverwalk.

The PIPE SHOP is directly south of the Switch House. The building was used for the storage of cable pipe and reels and for a worker break room. The building was constructed in two phases. Of all the buildings on the site, the Pipe Shop has suffered the most physical deterioration. The structure also lies within the flood plain and the path of the proposed Riverwalk. Similar to the Screen House, reuse opportunities could be sought that activate the open space. However, if the building were demolished, pedestrian and vehicular circulation through the site would be improved. The proposed Master Plan illustrates this small building being demolished.

ENVIRONMENTAL ASSESSMENT

As part of the Pre-Development work, Weston&Sampson performed a Phase 1 Environmental Site Assessment of the property to evaluate the environmental conditions. The major findings of the Phase 1 ESA are as follows:

- Historically, BELD utilized numerous above ground tanks (ASTs) and underground storage tanks (USTs) at the site.
- The site is listed as a release site with the Massachusetts Department of Environmental Protection (DEP) relative to a release of gasoline from an historic UST. Remedial actions were performed to remove the impacted soil and a groundwater and closure report was submitted to the DEP.
- A previous environmental assessment was performed in 1997 by Earth Tech to assess potential impacts from historic USTs and transformers. The investigation did not assess the area of a former 500-gallon gasoline UST with no closure documentation. In addition, the assessment identified fill material that was not fully characterized.
- Braintree Fire Department records include a 1992 UST removal permit and tank receipt for an additional 2,000-gallon #2 fuel oil UST at the site. Additional information regarding the closure of this UST was not identified.
- Historic atlas maps dated 1948 and 1969 depict a fuel oil storage tank south of the former Boiler House. Additional information regarding this tank was not identified and this area was not assessed by Earth Tech.

- During the 2013 site visit, approximately 100 cubic yards of sand and 60 cubic yards of loam were stock-piled on the site. Information regarding the source of this stockpiled material was not initially identified, although it was later determined that this soil was a product of the infrastructure work which was being done across the river at Weymouth Landing.

A Hazard Materials Assessment was also conducted to identify hazardous materials which may be encountered during future building and/or demolition activities. The assessment included an Asbestos Containing Material (ACM) Survey, a Lead Based Paint (LBP) Survey, a Polychlorinated Biphenyl (PCB) Materials Survey and a Regulated Materials Survey.



Above: A Phase I Environmental Site Assessment has been completed on the property. A Phase II ESA is recommended prior to any redevelopment.

With regard to the SWITCH HOUSE, asbestos was identified in the floor tiles, mastic, pipe fitting insulation, window caulking, window glazing, pipe insulation, panel divider, and exterior window and door caulking. Pipe gaskets and water proofing foundation mastic were not accessible and were not sampled but are assumed to contain asbestos. Lead was positively identified in painted surfaces at varying degrees of lead content. An assessment was not conducted of the other three buildings.

At the time of inspection, in general, painted surfaces were observed to be in defective condition (i.e. flaking, peeling and/or delaminating). Analysis identified low levels of PCB's in three window glazing samples. Finally, a visual inspection for evidence of regulated building materials was conducted and an inventory of any remaining chemicals in the buildings was performed. Refer to the Environmental Assessment Report and the Hazardous Materials Survey in the Appendix for a full environmental analysis (Weston&Sampson, 2013).

The Phase 1 ESA identified the following potential recognized environmental conditions (RECs) associated with the site:

- A former 500-gallon gasoline UST without closure documentation that has not been assessed.
- A former 2,000-gallon fuel oil UST that was removed in 1992 with no additional closure documentation.
- A former fuel oil tank depicted south of the Boiler House on historic atlas maps which has not been assessed.
- Subsurface fill material at the site that has not been fully characterized.

A Phase II Environmental Site Assessment is recommended to assess these potential RECs.

*A PHASE II ENVIRONMENTAL SITE ASSESSMENT
IS RECOMMENDED TO ASSESS POTENTIAL
RECOGNIZED ENVIRONMENTAL CONDITIONS.*

OTHER SITE RELATED ISSUES

1. STRUCTURAL INTEGRITY

The two-story SWITCH HOUSE is a steel frame structure built into a significant slope. The existing foundations consist of a large retaining wall along the high side of the site and interior footings on rock and caissons. The lower level structure is a slab on grade. At the upper level, steel framing supports a 6" structural slab. The roof structure consists of long span truss joists identified as "Bethlehem Long Span". Exterior walls are brick and masonry and some interior walls at the lower level are CMU. It is assumed that the masonry provides lateral stability to the building. The AECOM report concluded that the existing structure was generally sound and suitable for redevelopment with the possible exception of the roof. Due to limited access, the roof structure has not been evaluated.

2. FLOOD PLAIN

Current mapping indicates that the use of the Switch House as envisioned would not be impacted by the flood plain elevations. While the Administration Building is not within the flood plain, both the Screen House and Pipe Shop are. New uses proposed for these buildings should anticipate the likelihood of water penetration due to sea level rise and climate change. The landscape plan needs to establish a buffer zone with the lower level of the building in order to establish a layer of privacy and help to demarcate vehicular access.

3. COMBINED SEWER OVERFLOW and PORTABLE PUMP

There is a portable pump located in a manhole just south of the Administration Building. The town physically activates the pump in times of heavy rain to alleviate sewer backups. Direct discharge into the river is permitted by the reviewing environmental agency. The pump is located here because the site was vacant and was out of the way of residents and businesses. The pump can be fairly easily relocated to a different manhole and will need to be moved prior to any site redevelopment.

There is also a physical overflow pipe that would need to be plugged to fully resolve this situation. A minor evaluation of the sewers on site should be performed including a television inspection and manhole inspection. An inverted siphon on the site could be reconfigured to flow by gravity if the boat access for the Braintree Yacht Club were reconfigured. A hydraulic analysis of up and downstream sewers is needed to confirm that this is possible and to size/design the new pipe.

4. SEWER MAIN

The Site is bisected by a 30" diameter sewer main trunk running parallel with Allen Street connecting out to Quincy Avenue. There is a 15-foot setback centered on the line. The physical condition of this sewer line needs to be determined.

5. ZONING

The purpose of the Braintree-Weymouth Landing District rezoning was to *"establish reasonable standards that permit and control mixed residential, commercial, governmental, institutional and office uses within the district"*. At the time of the Weymouth Landing rezoning, MAPC did not recommend rezoning the BELD Allen Street parcel in order to allow that public engagement effort to run its course. Considerations should now be given to expand the rezoning to include the Monatiquot Subdistrict and the former BELD site.



Above: Boats from the Braintree Yacht Club to the south of the site are accessed via a floating walkway.

6. YACHT CLUB BOAT SLIPS

The Braintree Yacht Club has the rights to place their boat slips in front of the Allen Street site. Access to the boat slips is under the Quincy Avenue bridge via a floating walkway, which connects to the Yacht Club. The Town has granted this access to the club for many years. The rights to continue this relationship will be up for renewal in 2015 and should be discussed prior to the site's redevelopment.

CONCLUSION

More than 100 years ago, the property at 44 Allen Street became a symbol of Braintree's forward-thinking and resourcefulness as a community. In the late 1800's, recognizing that electricity was instrumental to future growth and development, the town constructed the Braintree Electric Light Department along Allen Street. BELD was one of the first public power plants in the United States. Shortly thereafter, the utility began expanding its impact beyond street lighting to include electricity to local homes and businesses. As a result of this investment, commercial activity flourished.



Above: Thomas A. Watson was the founder of the Braintree Electric Light Department and also started the Fore River Engine Co. adjacent to the Quincy Avenue bridge. (Image: Google).

Today, the demands of power generation continues to grow even as the hazards of production are becoming more understood. Improvements in building technology along with responsible building practices make it possible now to create or rebuild structures which are entirely self-sufficient.

At the beginning of the 21st century, more than a century after its inception, the town once again has the opportunity to reinvent 44 Allen Street with the kind of innovative development that would be a fitting tribute to the progressive thinking that Braintree exhibited when constructing BELD as a utility company at the end of the 19th century.

