

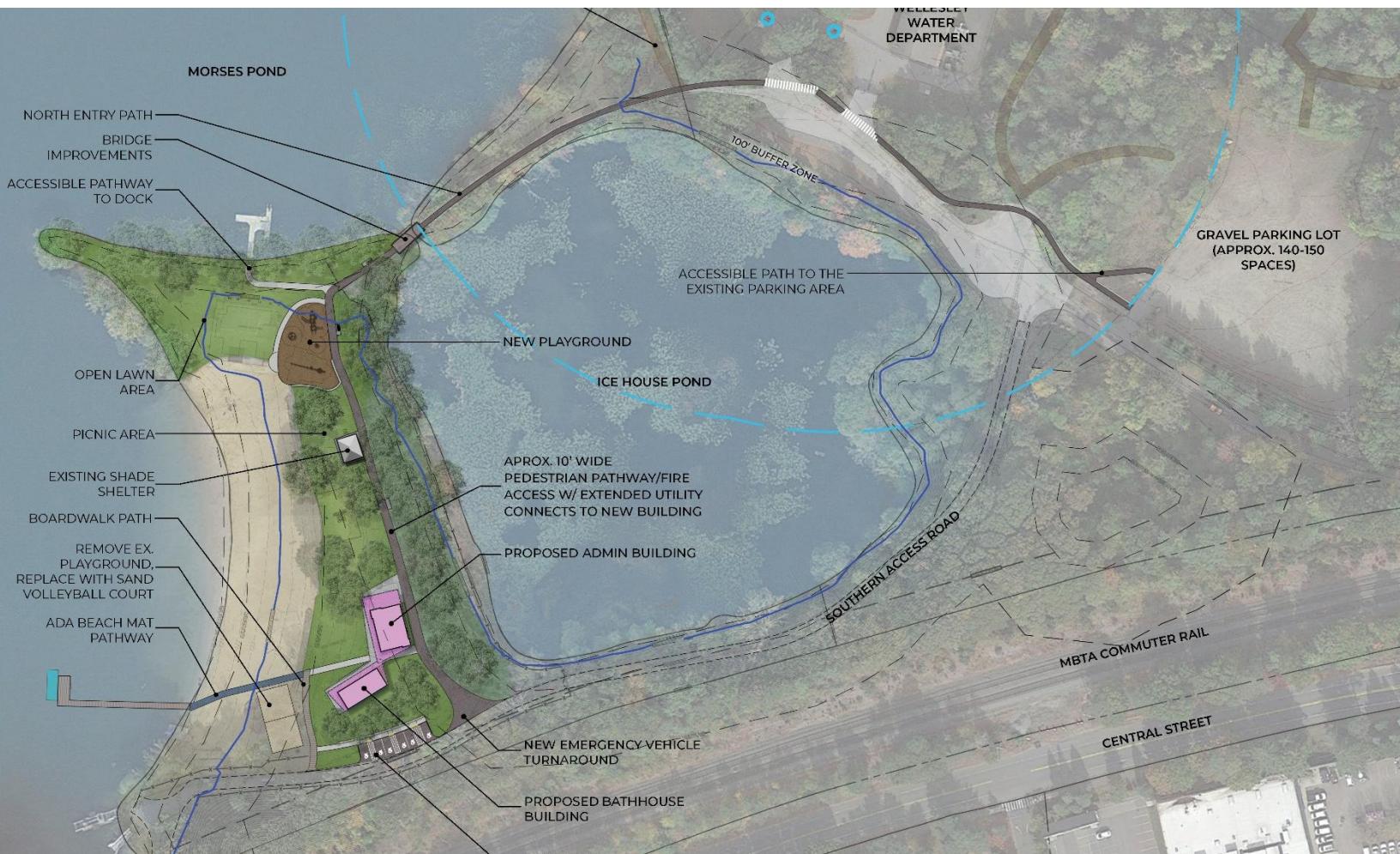


# MORSES POND BEACH & BATHHOUSE SUPPLEMENTAL FEASIBILITY STUDY

95% Draft - January 23, 2026

MARYANN THOMPSON ARCHITECTS  
www.maryannthompson.com

Weston & Sampson<sup>SM</sup>  
design studio



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# ACKNOWLEDGMENTS

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The development of this Supplemental Feasibility Study was truly a collaborative endeavor. Its recommendations are grounded in a robust and inclusive public process shaped by engaged stakeholder groups, Town departments, and public officials. Their insight, time, and commitment were essential in ensuring the study reflects both community priorities and environmental protection.

Across meetings and discussion, a shared vision consistently emerged: to identify thoughtful, achievable ways to make meaningful improvements to one of Wellesley's most cherished and iconic public open space resources. That collective sense of purpose was instrumental in guiding the study forward. Sincere thanks are extended to the many individuals who contributed their expertise and perspective through this process, including:

## **Natural Resources Commission (NRC)**

Jay McHale, Chair  
Steve Park, Vice Chair  
Bea Bezmalinovic  
Michael D'Ortenzio  
Tom Hammond

## **Morses Pond Beach Advisory Committee (MoPoBAC)**

Jay McHale, Chair  
Tripp Sheehan, Vice Chair  
Tom Ulfelder, Select Board  
Stephen Murphy, Community Preservation Committee  
Mark Wolfson, Recreation Commission  
Michelle Jacobs, Precinct B  
Maura Renzella, Youth Commission and Precinct B

## **Town Representatives**

Brandon Schmitt, Director, Natural Resources Commission  
Glenn Remick, Project Manager, Facilities Management Department  
Matt Chin, Director, Recreation  
Jennifer Lawlor, Associate Director, Recreation

## **Weston & Sampson**

Brandon Kunkel, RLA, Discipline Leader, Design  
Cassie Bethoney, RLA, Practice Leader, Landscape Architecture

Amanda Gaal, RLA, Project Manager  
Kyle Alfred, Landscape Designer

**Maryann Thompson Architects**

Zac Cardwell, Senior Associate

**PM&C**

Travis Kalberer  
Colin Dutton

# 1. EXECUTIVE SUMMARY

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The goal of this supplemental feasibility study was to address all issues raised following the acceptance of the previous 2024 Morses Pond Beach & Bathhouse Feasibility Study, hereinafter referred to as “Master Plan Study”, and to ensure the proposed improvements can achieve ADA/MAAB, code, and permitting compliance, are properly budgeted, and meet the programmatic and operational needs of the Recreation Department, NRC and community as a whole. Refer to Appendix B for the full 2024 study which provides details on previous study efforts, existing conditions, the existing bathhouse, and current building code review. This Supplemental Feasibility Study focused on enhancing and protecting the overall natural and aesthetic quality of Morses Pond and sought alternative options in efforts to minimize impacts to the existing environment. This study aims to provide an overall site design that is contextually and inherently grounded to Morses Pond’s history, habitat, Town’s culture, and social character.

To accomplish this, the following project goals from the prior Master Plan Study were reviewed and updated:

-  The site is very much loved as it is, so a master plan tenet should include preserving and enhancing all that is great.
-  The bathhouse has outlived its practical and functional life and given the extent of repairs and upgrades required in order to bring the building into full code compliance and functionality, it is more cost effective and practical to demolish the existing building and create a new building.
-  The design shall improve universal access for site amenities, walkways and paths.
-  Designs should be simple and sustainable, and in keeping with the inherent historical, environmental, cultural, and social site character.
-  Through the establishment of meadows and native landscape plantings, wildlife habitat can be improved.
-  New building enhancements should be attractive, low-intensity, and supportive of neighborhood and town-wide use during the summer swimming season.
-  Improvements to Morses Pond Beach will be designed in a cost-effective and sustainable manner.

Through a collaborative and iterative process involving Recreation, NRC, the Morses Pond Beach Advisory Committee (MoPoBAC), and Town staff, the Supplemental Feasibility Study evaluated site constraints, circulation and operations, building siting, environmental impacts, regulatory requirements, and project costs. The findings confirm that the proposed improvements can meet ADA and MAAB requirements, comply with applicable building and permitting regulations, and support the operational needs of the Recreation Department, while minimizing impacts to sensitive natural resources and preserving the character of Morses Pond.

Key findings of the study include confirmation that the revised project scope is feasible and that a reduced-scale, single-story bathhouse and administration building can be sited on the south side of the site while avoiding new disturbance within regulated buffer zones; and that site circulation can be simplified by relying on existing paths and controlled access points, eliminating the need for new pedestrian paths within No Disturbance Zones.

Environmental investigations completed as part of the Supplemental Feasibility Study, including a tree inventory and health assessment, wildlife habitat evaluation, supplemental geotechnical

explorations, stormwater test pits, and a Phase I Environmental Site Assessment, confirmed that the preferred concept minimizes impacts to sensitive site resources while remaining feasible to construct. Specific to each focused study:

- The **tree assessment** informed building siting and circulation refinements that reduce tree removal and avoid impacts to higher-quality specimens.
- The **wildlife habitat evaluation** identified no rare or endangered species within the project area and confirmed that proposed improvements, combined with native plantings and meadow restoration, will not adversely affect existing habitat. It also identified what types of invasive species are currently on site and where they are located as a first step to invasive vegetation management recommendations.
- **Geotechnical borings** verified that subsurface conditions can support shallow foundations for the proposed buildings, with groundwater conditions understood and manageable, reducing construction risk.
- **Stormwater test pit results** demonstrated favorable soil conditions for infiltration and confirmed that the revised design can be implemented without increasing impervious cover or triggering a stormwater management report.
- The **Phase I Environmental Site Assessment** identified no recognized environmental conditions that would preclude construction.

Collectively, these findings confirm that the revised project scope significantly reduces environmental disturbance while providing a clear and predictable path forward for permitting and construction.

The preferred concept resulting from this study reflects a reduction in building square footage, impervious surfacing, earthwork, soil removal, and overall site disturbance compared to earlier concepts, while increasing dedicated lawn space and improving site accessibility. Independent cost estimating confirms that the revised scope is properly budgeted and provides a clear and defensible basis for future capital planning. Code and life-safety reviews confirm that the proposed seasonal buildings can be designed to comply with all applicable requirements.

In October 2025, the NRC approved the revised south-side building concept, reflecting the priorities established through this study. This approval confirms that the outstanding feasibility issues identified in 2024 have been addressed and that the project aligns with the Town's environmental stewardship goals, operational needs, and community expectations.

This report represents the culmination of the supplemental feasibility study process and establishes a clear and achievable path forward for the Morses Pond Beach and Bathhouse Project. The preferred concept documented herein is intended to serve as the basis of design for a future construction buildout, anticipated to occur between January 2028 and January 2029. If the project advances, construction would require closure of Morses Pond Beach for the 2028 summer season, with the facility reopening for the 2029 beach season. With a defined scope, documented

environmental and technical findings, and confirmed regulatory alignment, the project is now positioned to advance into design with confidence that it can be permitted, funded, and constructed in a manner consistent with the values of the Wellesley community.

## 2. HOW DID THE SUPPLEMENTAL FEASIBILITY STUDY COME TO BE?

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At the direction of Annual Town Meeting 2024, the NRC created the MoPoBAC to address both the concerns raised by the NRC in January 2024 regarding the prior Master Plan Study, and to review the overall project for potential issues prior to the Design Phase. The Committee held site visits and conducted 6 meetings over the Summer of 2024. In August 2024, the MoPoBAC produced a Recommendations Report, which was then accepted by the NRC, finalized in October of 2024, and documented in the memorandum entitled 'Morses Pond Beach Advisory Committee Recommendations and Considerations', included as Appendix C to this report for reference.

The following outlines the recommendations that became the basis for this Supplementary Feasibility Study and how they were addressed,

### **Summary of Recommendations and Outcomes**

#### Recommendation # 1 - Remove Ice House Pond footpaths.

Description: Reevaluate and potentially eliminate proposed new pathways within the 25-foot No Disturbance Zone to reduce environmental impacts and streamline circulation. This includes the walkway along the southern access road to the south of Ice House Pond and the north/south pathway along the west side of the pond.

Outcome: The north–south path along the west side of Ice House Pond and the sidewalk along the southern access drive have been removed from the design. Widening the southern access road is not feasible, as it lies within the MBTA Zone of Influence (ZOI), which imposes strict limitations on modifications in this area.

Pedestrian access to the beach will be provided from the north path, with ADA vehicular access (only) from the southern drive.

These adjustments reduce project scope, cost, and environmental impacts within the 25-foot No Disturb Zone, while ensuring all improvements remain outside the MBTA ZOI limits

#### Recommendation #2 – Reduce impervious surface footprint of the buildings.

Description: Reduce the overall footprint of the bathhouse and administration buildings while still meeting operational and code requirements, to minimize stormwater impacts and preserve natural open space.

Outcome: Reduced size of the buildings by reducing the number of toilets and changing areas, consolidating the storage area, and eliminating the concession area (vending remains). The reduced footprint will have less impact on stormwater and will preserve more natural space.

### **Recommendation #3 – Reduce impervious surface footprint of uncovered patio area.**

Description: Scale back uncovered patio and hardscape areas adjacent to the buildings to limit impervious surfaces, reduce maintenance demands, and improve visibility and circulation for beach operations.

Outcome: Building patio area was reduced by 1,610 sf (39% reduction from 2024 master plan).

### **Recommendation #4 – Minimize site grading requirements.**

Description: Evaluate building siting, accessible routes, and circulation strategies to minimize grading and site disturbance while maintaining ADA-compliant access throughout the beach and bathhouse area.

Outcome: Grading studies were performed to minimize grading and site disturbance as much as possible. The design intent is to keep as close to existing grades as possible, balancing the placement of new improvements with existing site features to remain while ensuring ADA accessibility is maintained throughout. The preferred concept resulted in approximately 70% less site disturbance than the previous master plan.

### **Recommendation #5 – Confirm items identified by NRC**

Description: Address the 5 considerations identified in the NRC memo, dated 1/31/2024

- **Recommendation #5.1 – Wetland considerations and mitigation.**

Description: Identify and address all wetland-related impacts, including floodplain fill, tree removal, and habitat disturbance, and define required mitigation measures such as compensatory storage, wildlife habitat evaluation, and native tree replacement.

Outcome: Although great consideration has been taken to minimize site disturbance and remove or reduce work being done within the environmentally sensitive areas abutting the ponds, some compensatory storage will be required due to fill occurring below elevation 124.2 (FEMA Floodplain). A Wildlife Habitat Evaluation, which was completed as part of this Supplemental Feasibility Study, is required as part of the local Notice of Intent application because more than 5,000 square feet of land in Bordering Land Subject to Flooding (BLSF) will be affected. See Appendix K, *Wildlife Habitat Assessment, September 2025*. Additionally, any tree removals, 5 inches in Diameter at Breast Height (DBH) or larger occurring within the 100-foot wetland buffer shall be replaced with a native tree species, at least 1.5 inches DBH. The approved concept anticipates a total of 6 tree removals and replacements within the 100-foot buffer.

- **Recommendation #5.2 – Low-impact sustainable design.**

Description: Incorporate low-impact and sustainable design principles across buildings, landscape, pathways, and construction practices to protect sensitive ecosystems and support long-term environmental stewardship.

Outcome: This is the design intent and will be addressed as part of the design phase work.

- **Recommendation #5.3 – Impact of the potential increase beyond current seasonal use.**

Description: Evaluate whether the proposed design would result in increased frequency, duration, or seasonal use of the site and assess any associated environmental or neighborhood impacts requiring regulatory review.

Outcome: Prior to the commencement of the supplemental study, both recreation and NRC concluded that the project would not be for a change-in-use and be designed for seasonal use only. Because of this, no special permitting or additional studies were required for extended hours or seasons as part of this study.

- **Recommendation #5.4 – Ownership, maintenance, and budgeting.**

Description: Clarify long-term ownership, maintenance responsibilities, and budgeting assumptions for the bathhouse and beach facilities to ensure operational feasibility and interdepartmental alignment.

Outcome: The NRC currently owns the Morses Pond Beach and Bathhouse. Assuming ownership remains under the NRC, the NRC proposed to lease the facility to Recreation who will assume the responsibility for permitting, budgeting, and maintenance. The decision is not part of this Study and will be based on discussions between NRC/Department of Public Works (DPW) and Recreation/FMD.

- **Recommendation #5.5 – NRC engagement with Recreation.**

Description: Ensure continued coordination and shared decision-making between the Natural Resources Commission and Recreation Department throughout feasibility, design, and permitting to align environmental and operational priorities.

Outcome: To ensure coordination amongst all departments, members of both the NRC and Recreation were part of the MoPoBAC, along with representatives from the Select Board, CPC, Town representatives, and citizens.

## **Recommendation #6 – Determine whether any ‘Change in Use’ is planned.**

Description: Confirm whether the proposed improvements constitute a change in use under NRC policy and, if applicable, identify any additional approvals or public processes required.

Outcomes: Prior to the commencement of the supplemental study, both recreation and NRC concluded that there will be no change in use as the site currently operates as a beach and will continue to in the future.

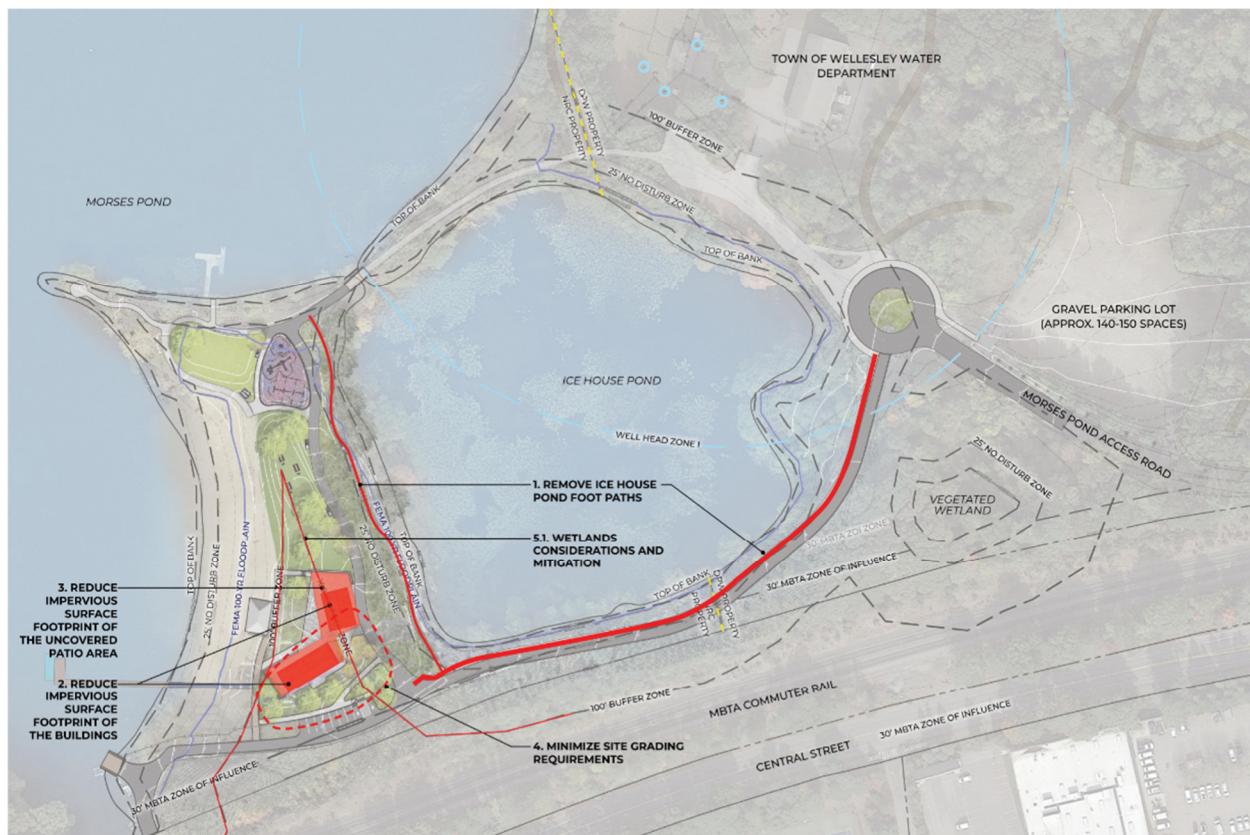
### Recommendation #7 – Evaluate accommodations for food trucks.

Description: Assess whether food trucks are desired as part of beach operations and, if so, determine appropriate locations, circulation, and utility provisions to support them without increasing site impacts.

Outcome: Lockable power hook ups will be provided at the exterior of each building, and the vehicle entrance has been designed to accommodate the vehicle turning radius needed for food trucks.

### **Conclusion:**

The recommendations developed by the MoPoBAC and adopted by the NRC formed the foundation for this Supplementary Feasibility Study. Each recommendation was carefully evaluated and integrated into the revised concept to reduce environmental impacts, improve functionality, and align with community priorities. The following sections detail how these recommendations were implemented in the design approach and outline the strategies that will guide the next phase of the project. The plan below marks out those recommendations noted above that could be physically located, as reference.



Graphic depiction of the issues raised with the 2024 Master Plan.

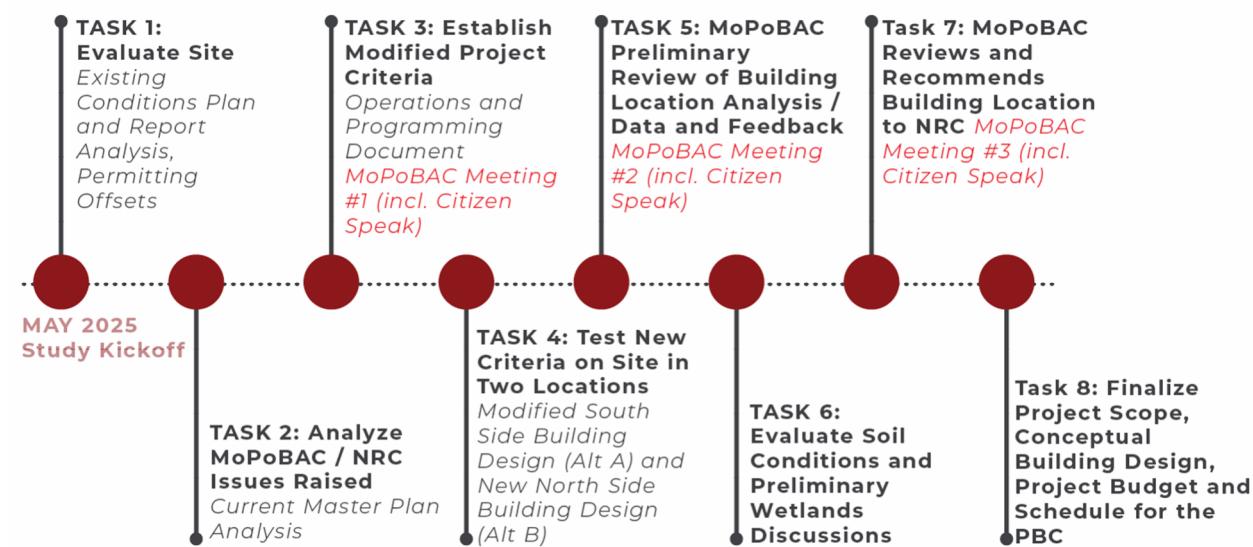
### 3. SUPPLEMENTARY STUDY PROCESS

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#### Project Tasks

In May 2025, The Town of Wellesley engaged Weston & Sampson Engineers as the prime consultant for this supplemental feasibility study, with Maryann Thompson Architects (architecture) and PM&C (cost opinion) included as sub consultants to assist with the study.

The overall supplemental feasibility study effort included eight basic tasks, as noted below:



#### Task 1 - Site Evaluation

As part of this task, the prior Master Plan Study was analyzed, in efforts to confirm previous findings and target where there may be gaps to ensure the master plan adheres to all regulatory authority and the overall community vision.

Upon review, and with the established Town priorities in mind, it was clear that many of the goals set forth by the NRC and MoPoBAC can be achieved through further study and evaluation of the 2024 Master Plan.

#### Inventory and Observation

Under Task 1, Weston & Sampson conducted an on-site meeting to walk the property with Town representatives and discuss existing conditions, project opportunities and constraints. The team also examined the physical condition of the site and performed a site analysis, documenting the passive and active uses, views, solar orientation, and overall layout of the site. Based on site

observations, minor updates from the 2024 plan were noted. All site elements were marked on an existing conditions plan, which was based on the 2021 topographic survey.

### Tree Assessment

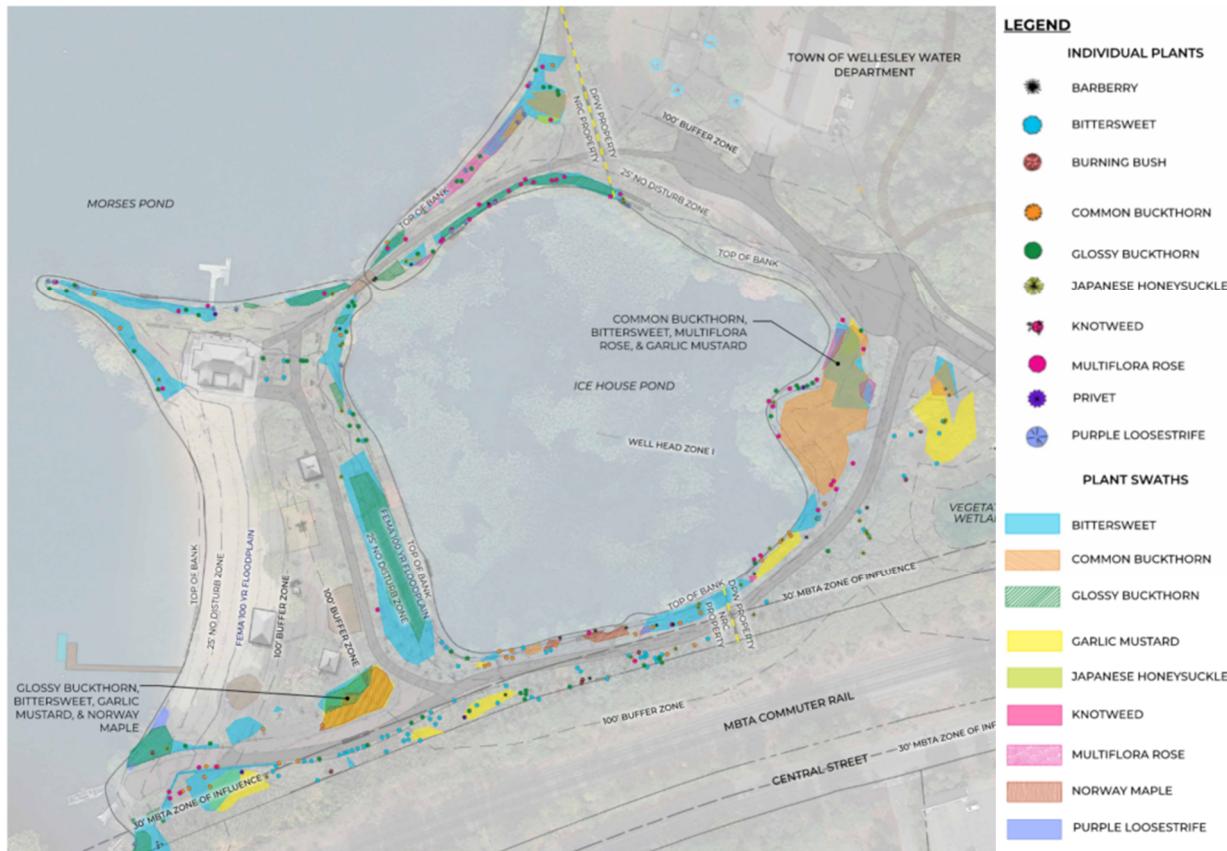
In August 2025, Weston & Sampson enlisted the services of arborists Hartney Greymont for a complete tree inventory within the project limits. All significant trees, with 5" or greater Diameter at Breast Height (DBH) were inventoried, documenting the size, species, and condition. A total of 230 trees were inventoried. The map shown below graphically depicts the locations and conditions of the existing inventoried trees. In total, there are 9 trees in excellent condition, 91 trees in good condition, 105 trees in fair condition, and 25 trees in poor condition.



Refer to Appendix M, *Building Location Analysis* for the enlarged plan.

## Wildlife Habitat Assessment

In August 2025, Weston & Sampson performed a Wildlife Habitat Evaluation. The evaluation assessed important wildlife habitat features, identified potential adverse impacts to important wildlife habitat features that could result from potential future development, and identified invasive species present within the evaluation area. Refer to Appendix K, *Wildlife Habitat Assessment, September 2025*

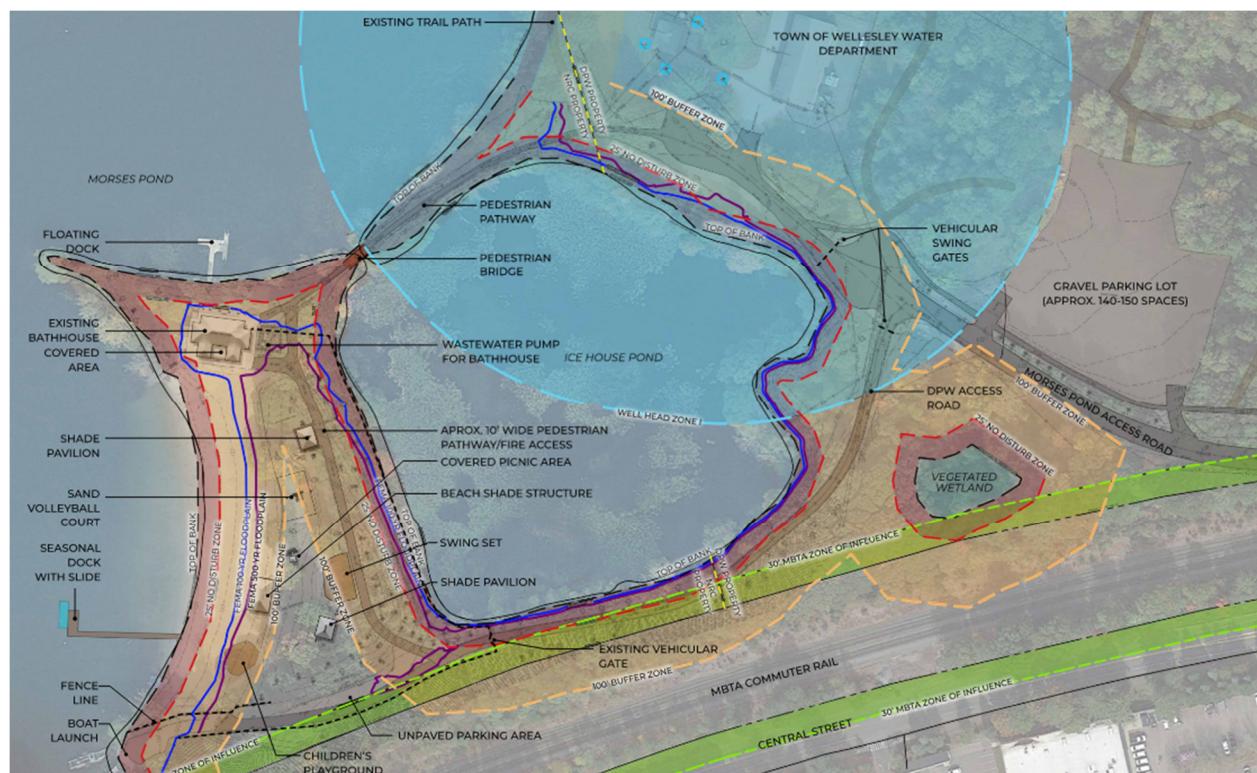


Refer to Appendix M, *Building Location Analysis* for the enlarged plan.

## Permitting Feasibility Study

The Existing Conditions Plan was also updated with a new wetlands delineation performed by a Weston & Sampson Professional Wetland Scientist. This delineation marks the Top of Bank (TOB) line, which is used for local Notice of Intent permitting applications, and would be required for improvements at Morses Pond. Based on this new line, permitting offsets were applied to the Existing Conditions Plan to reflect current and updated environmental and regulatory limitations of the property. These offsets are included in the plan on the following page, as noted in the table. More detailed information on permitting requirements are included in Appendix D, *Permitting Feasibility Assessment, June 2025*.

Permitting Line	Map Dash Color	Key Outcomes
<b>Zone I Wellhead Protection Area</b>	Cyan blue	<b>Avoid Work in Zone.</b> No new land uses are permitted unless they are for water supply or shown to have no significant impact. Occasional parking may be allowable with precautions.
<b>MBTA Zone of Influence</b>	Green	<b>Avoid Work in Zone.</b> Work within 30 feet of the MBTA property requires a license and extensive coordination with the MBTA
<b>Wetlands</b>	Black	<b>Local Notice of Intent (NOI) required for work in Bordering Land Subject to Flooding (BLSF) and buffer zones.</b>
	Blue	<ul style="list-style-type: none"> <li>- Compensatory flood storage is required if fill occurs below <b>100-year FEMA flood elevation</b> (124.2' NAVD88). Must match floodwater displacement volume.</li> </ul>
	Red	<ul style="list-style-type: none"> <li>- <b>25-foot No Disturb Zone</b> must remain intact.</li> </ul>
	Orange	<ul style="list-style-type: none"> <li>- Work in <b>100-foot buffer zone</b> must preserve habitat; tree removal requires native species replacement or mitigation plan.</li> </ul>
<b>Article 97 Land</b>	Property line (solid black)	<b>No Change In Use.</b> Project must maintain recreational use. Continued use as a beach is assumed not to require new Article 97 legislation unless advised otherwise.
<b>500-year FEMA flood elevation</b>	Maroon	<b>Potential Building Construction Consideration.</b> For climate change / resiliency consideration (0.2 chance of flooding annually).



Existing Conditions & Inventory Plan

## Historic Conditions

As part of this study, a Phase 1 Environmental Site Assessment was performed to learn about potential soil contamination that may be present based on historical past use of the property. The results of this study are included under Task 6 later in this section. Historic images pulled for that effort are included in Appendix J, *ASTM Phase I Environmental Site Assessment Report, September 2025*. A few key images included below indicate that the beach originally occupied the northern shoreline until the early to mid-1970s, when it was reoriented toward the western shore. The time-lapse also highlights extensive fill activities over the years, particularly in the southern portion of the current beach area, once predominantly wetlands and open water, creating a direct land connection between Ice House Pond and Morses Pond.



*Historical images of Morses Pond Beach (1938, 1957, 1970, 1978, 2006, and 2023)*

## **Task 2 - Analyze MoPoBAC / NRC Concerns**

Following acceptance of the 2024 Master Plan, the MoPoBAC, in collaboration with the NRC, prepared a Recommendations Report to address concerns raised by the NRC. These recommendations were used as a basis for the supplemental feasibility study scope. Weston & Sampson reviewed the recommendations and responded by fully evaluating site conditions and the master plan, incorporating refinements and design strategies directly related to the identified concerns. The recommendations are listed alongside a brief description and the outcomes in Section 2 of this report.

## **Task 3 - Establish Modified Project Criteria**

The team synthesized recommendations, site observations, investigation findings, and stakeholder input to establish a set of criteria guiding the revised design of the Morses Pond Bathhouse and

associated site improvements. The criteria developed during this phase informed the final conceptual design and are as follows:

### **Patrons**

- Beach Character: Take into account the beach experience from the user's perspective. This includes how one would approach the beach and views of the beach from various locations across the site.
- Shade Trees and Lawn: Shade trees and open lawn spaces provide passive and active recreational opportunities for the users. Ensuring the design is revised to reduce the impacts of these spaces was crucial to maintaining the user's experience.
- Main Public Entry (North) As a result of the permitting restrictions, the option for pedestrians to access the site from the southern access road by way of a sidewalk was no longer a feasible consideration. The main/only pedestrian access will be maintained at the northern end of the site. This informed the design as it relates to the proximity of the new building and the entry point. Deep consideration and analysis went into understanding the users experience as they entered the site, checked in with staff, enjoyed the recreational activities of the facility, and then exited the site.
- ADA / MAAB Access (South): It was important to maintain and formalize an accessible parking area at the end of the access road closer to the beach than the existing parking lot provides.
- Views: The design and building location shall consider the views from the bathhouse deck as well as views from the beach to the buildings and deck area to ensure safety and visibility are maintained across the site.
- Amenities: Strive to maintain, replace, or increase the number of existing amenities including benches, pavilions, play equipment, etc.

### **Staff**

- Programming: Coordinate with the Recreation Department to ensure programming and operational needs are met.
- Gatekeeper: Consider the ticketing and season pass check-in point in relation to the building.
- View from the Building: Ensure the guardroom has full visibility of the beach to maintain public safety
- Potential Food Truck: Consider access for food trucks near the building location

## **Building**

- Flood Zone: The 100-year FEMA floodplain (elevation 124.2) is present on-site. The building location shall consider current and future impacts related to proximity to or within the floodplain.
- Geotechnical Considerations: Understand the impacts of the proposed building location related to the subsurface soil conditions.

## **Environmental Impacts**

- Site Disturbance: Minimize site grading and limit disturbance to the greatest extent possible.
- Wetlands: Minimize disturbance within the wetland buffers
- Stormwater: Ensure stormwater is properly managed on site and plan for future conditions.
- Impervious Surface: Reduce overall impervious surfacing on site in order to better manage stormwater, natural landscapes, and mitigation requirements.
- Mitigation Requirements: Identify required mitigation measures and make every effort to minimize design elements that trigger them.

## **Costs**

- Costs Evaluate the costs associated with the proposed project, considering total impacts to utilities, amenities, site disturbance, mitigation requirements, and geotechnical considerations.

## **Task 4 - Test New Criteria on Site in Two Locations**

Two conceptual plans were developed to test alternative building locations: one featuring a modified south-side building location and another with a north-side location near the existing bathhouse. Both alternatives incorporated MoPoBAC recommendations. The graphic shown on the following page depicts both conceptual plans. Enlarged versions of these plans can be found in Appendix M, *Building Location Analysis*



**ALTERNATIVE A: SOUTH SIDE BUILDING DESIGN**

**ALTERNATIVE B: NORTH SIDE BUILDING DESIGN**

Utilizing the same reduced building footprint, each design was evaluated based on the following criteria:

### Site Circulation



**Alternative A: South Side Building Design**



**Alternative B: North Side Building Design**

Given the significant environmental impacts associated with a pedestrian footpath along the southern access drive, beach access by pedestrians is recommended to the north as it currently operates today. ADA access via a limited number of ADA parking spots are proposed at the southern end of the beach facility along the southern access route.

	Advantages	Disadvantages
Alternative A	Building is located close to the ADA parking and emergency vehicle access. Gatekeeper can be located at the beach entrance within the building	Requires a staff member to monitor the main northern pedestrian access.
Alternative B		Requires monitoring of the southern ADA parking access and is further from the ADA parking.

### Tree Impacts



Alternative A



Alternative B

CONDITION KEY	# OF DECIDUOUS
EXCELLENT	Tree is in excellent condition. May have unique value or be aesthetically desirable.
GOOD	Tree is desirable and in moderately good health.
FAIR	Tree may show some signs of minor health issues
POOR	Tree is unsound, high risk, unhealthy, or undesirable.

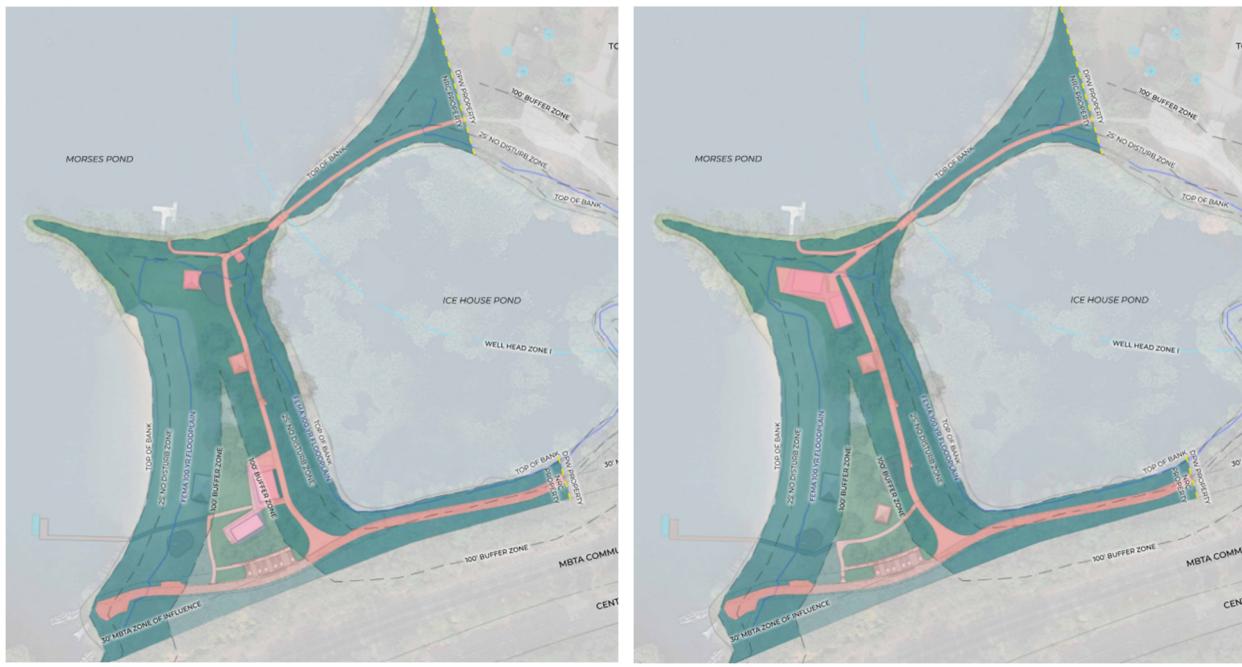
Each alternative was assessed for how many tree removals would be required. Alternative A had a total of 9 tree removals, 6 of which fell within the 100-foot buffer zone and would require 6 native replacements. Out of the 9 trees to be removed, 2 of them are invasive Norway Maples. Alternative B required 3 tree removals, 2 of which fell in the 100-foot buffer and will require native replacements. In conclusion, Alternative B requires less tree removals overall.

## Utility Impacts



Water, sewer, stormwater, electrical, communications, and cable utility connections are required for each alternative, though the extents of each vary. With the building shift to the south in Alternative A, the extension of the water lines, communications, cable, and electrical are required. These would travel under the main upper path to avoid impacting existing trees along the route. Stormwater and sewer are both located at the southern end of the site, resulting in shorter connections. Under Alternative B, utility connections would include servicing the new building with minimal connections needed as it is located in the general area of where the existing building and utilities are today.

## Impervious Cover



Alternative A

Alternative B

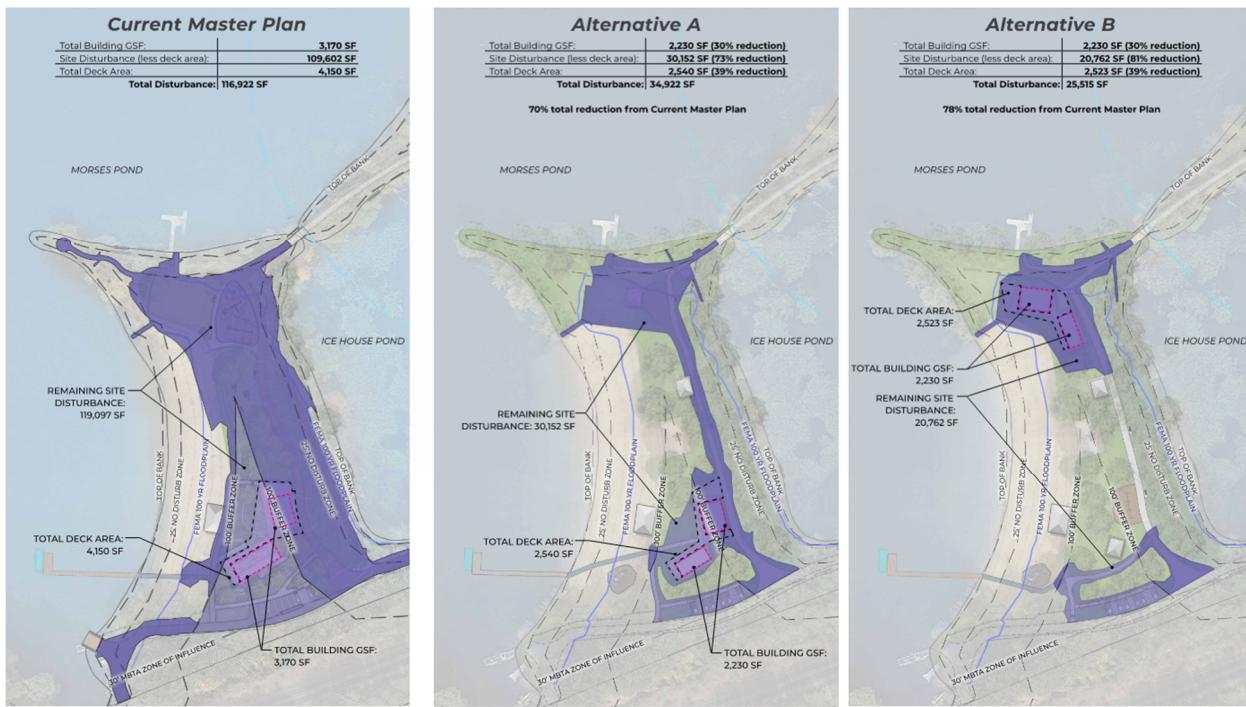
Increasing impervious cover can have a negative effect on stormwater runoff, triggering additional conditions within the permitting process and design to mitigate the additional stormwater flow before reaching the stormwater system and/or back into the pond. Additionally replacing what was a pervious surfacing with impervious paving takes away from the natural landscape and habitat.

Both Alternatives resulted in a net reduction of impervious surfacing within the 100-foot wetland buffer, but only Alternative A achieved a net reduction across the entire site. This was in large part due to the building relocating to an area closer to the accessible entrance, providing the opportunity to reduce and combine the accessible paths with the surrounding building plaza.

		Alternative A	Alternative B
Impervious	Inside 100' buffer:	-4,040	Inside 100' buffer: -1,193
	Outside 100' buffer:	+3,743	Outside 100' buffer: +1,877
Pervious	<b>Total:</b>	<b>-297</b>	<b>+684</b>
	Inside 100' buffer:	+4,040	Inside 100' buffer: +1,193
	Outside 100' buffer:	-3,743	Outside 100' buffer: -1,877
	<b>Total:</b>	<b>+297</b>	<b>-684</b>

Note: Quantities in the table above indicate the increase or decrease from existing

## Site Disturbance



A grading study was performed on each of the alternatives which allowed for a comprehensive understanding of the total site disturbance required for each design. The graphic above depicts the disturbance area both inside and outside the 100-foot wetland buffer, for the current 2024 master plan as well as each of the alternative designs. The dark purple area indicates all disturbed areas within the wetland buffer, while the lighter purple depicts the disturbed areas outside the wetland buffer. The current design is a 70%-78% reduction in total site disturbance, preserving as much of the natural habitat and character as possible. Enlarged versions of the graphics included above can be found in Appendix M, *Building Location Analysis*.

### Alternative Summary Comparison

After these alternatives were completed, the team conducted a comparative analysis to evaluate how each concept aligned with the established criteria. This process objectively highlighted advantages and disadvantages of each location in relation to the community's priorities. The chart below summarizes the findings.

CRITERIA	ALTERNATE A: South Side Building Location	ALTERNATE B: North Side Building Location
Patrons		
Beach Character	Transformational. New beach front area opens up panoramic views/site to the North for patrons.	Existing patron beach experience to remain largely unchanged. Slightly more view to the North past building.
Shade Trees and Lawn	Adds an open lawn area at existing demolished building (beach level). Reduces current tree/shade lawn area at the South.	No significant shade tree and lawn impact for patrons.

Main Public Entry (North)	Building located on opposite side of site from main public entrance (gatekeeper control required at remote entry). Requires patrons to traverse site to purchase passes/rentals and to use bathhouse.	Building with integral gatehouse located at main entry on the North.
ADA/MAAB Access (South)	Building adjacent to accessible entrance/parking. Requires sloped walkways to access elevated building.	Building located on opposite side from accessible entrance/parking. Requires traversing site to access building. Requires separate monitoring of South entrance by staff/guard.
View from Bathhouse Deck	Deck has elevated view of beach and view to the North, with sun at patron's back.	Low (beach elevation) panoramic view from deck located at bend in site.
View from Beach	Parental view to Bathhouse from beach (towards sun). Requires	Parental view to Bathhouse from beach (away from sun).
Amenities	relocating/eliminating/replacing a shade structure and the swing set.	All current amenities can remain.
<b>Staff</b>		
Programming	Meets all program requirements for staff.	Meets all program requirements for staff.
Gatekeeper	Requires remote staffing at North entry.	Requires monitoring of South accessible entry by staff/guards.
View from Building	Building is on South end of beach with full view to the North.	Building is at bend in site, with views in two directions.
Potential Food Trucks	Food trucks can be accommodated near building (or adjacent to accessible parking area).	Food trucks can be accommodated near building.
<b>Building</b>		
Buildings (Quantity)	Requires separate minimal gatehouse structure at North entry.	Gatehouse located as part of main Bathhouse.
Flood Zone	Building floor elevations are approximately 7 feet above the 100-year FEMA floodplain. Also above FEMA 500-year floodplain.	Building floor elevations are approximately 12" above the 100-year FEMA floodplain (EL 125.2) and also 9.6" above current floor elevation of the existing building (EL 124.4).
Building Foundations & Soil-Loading / Geotechnical Considerations	Requires deeper excavation of unstable soil on man-made hill for foundations. Dewatering is unlikely. Geotechnically, undocumented fill (1-4 ft deep) and some buried topsoil layers were found in the vicinity.	Requires some excavation and dewatering for foundations at its lower elevation. Geotechnically, low quantities of unsuitable soil were found at foundation depths. Groundwater was found closer to foundation depth.
<b>Environmental Impacts</b>		
Site Disturbance	Excavates South end of site for new parking/building, demolishes building on North side, and trenches utilities between. Total disturbance 34,922 SF	Excavates South end of site for new parking/paths and excavates North side for building (at demolished building site). Total disturbance 25,515 SF

Wetlands	Approximately half the building is located outside the 100-foot wetlands buffer zone.	Entire building located within the 100-foot wetlands buffer zone (current building site)
Stormwater	Soils generally transmit water well (sandy/gravelly with high infiltration). Seasonal high groundwater is of low concern.	Soils generally transmit water well (sandy/gravelly with high infiltration). Seasonal high groundwater appears relatively shallow in some locations (as close as 46–60 in), which will need to be managed in the design.
Impervious	Similar total impervious area proposed for both Alternates. Within Wetlands, there is a net reduction of 4,040 SF of impervious area compared to current existing conditions.	Similar total impervious area proposed for both Alternates. Within Wetlands, there is a net reduction of 1,193 SF of impervious area compared to current existing conditions.
Mitigation	Wildlife assessment and minor compensatory storage required (requires 6 native tree replacements)	Wildlife assessment and minor compensatory storage required (requires 2 native tree replacement)
<b>Cost Deltas*</b>		
Utilities	Utilities need to be extended to South side of site (+\$235,000)	Current utilities exist to building location.
Bathhouse Building	Requires a minimal Gatekeeper structure at North entry (+\$30,000), replace existing building footprint with lawn (+\$75,000)	May require more durable materials and additional design elements because of lower elevation and proximity to water (+\$105,000).
Amenities	Building location requires swing set relocation (+\$50,000), relocating the shade shelter (+\$130,000)	All amenities can remain.
Site Disturbance/Excavation	Less disruption / excavation than Current Master Plan but more than Alternate B (+\$30,000)	Less disruption/excavation than Current Master Plan and Alternate A. Assume some road repair will be needed on the north / south pathway due to construction activities (+15,000)
Tree Mitigation	Replace 6 trees (+\$2,400 per tree = \$14,400)	Replace 2 trees (+\$2,400 per tree = \$4,800)
Soil Loading Capacity / Geotechnical Considerations	Over excavation and lightweight fill would be required for +/- 6 ft depth (+125,000), no dewatering required	Over excavation and lightweight fill of +/- 2 feet may be needed for half of the building footprint (+25,000), dewatering would be needed due to high groundwater (+15,000)

\* Note: Cost deltas included in this chart are high-level order-of-magnitude numbers and are intended to be used for cost comparative purposes only.

## Task 5 - MoPoBAC Preliminary Review of Building Location Analysis / Data Feedback

Weekly working group meetings with representatives from the design team, Recreation, Facilities, and NRC fostered a collaborative process that ensured the study remained aligned with the original goals of the supplemental study. In addition, Weston & Sampson and Maryann Thompson Architects facilitated four MoPoBAC meetings, where key decisions were reviewed, advanced, and finalized as the project progressed. The meetings focused on balancing cost, accessibility, environmental

impacts, operational efficiency, and alignment with prior public engagement. Discussion evolved from identifying site constraints and information gaps to refining comparative metrics that supported a final recommendation.

Key discussion topics included:

- Comparative evaluation of southern and northern building locations, including site functionality, visibility, and supervision.
- ADA accessibility and circulation, including path lengths, grading, and proximity of accessible parking to the building and beach.
- Environmental and permitting constraints, including FEMA floodplains, wetlands buffers, stormwater management, and groundwater considerations.
- Site disturbance and grading impacts, including tree preservation, retaining wall needs, and overall footprint.
- Utility relocation, subsurface conditions, and MBTA coordination, with attention to schedule and cost implications.
- Cost comparisons, including utility trenching, over-excavation, and long-term operational considerations.
- Consistency with prior public process and clarity in presenting alternatives for comparison.

Information requested during this process, which helped lead to the final recommendation, included:

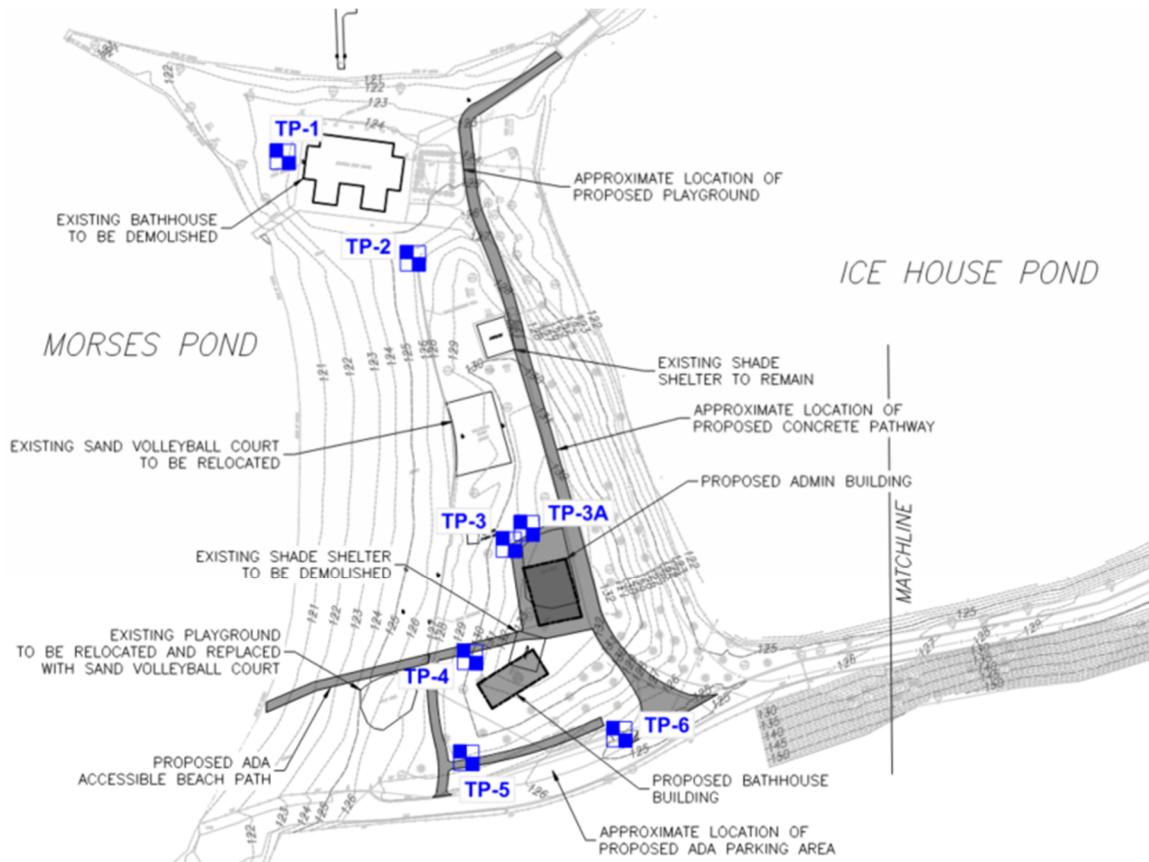
- Diagrams quantifying total grading and site disturbance for each alternative.
- Clarification of floodplain extents, compensatory storage needs, and groundwater impacts.
- Inclusion of permitting requirements and ADA-related impacts within comparison charts.
- Further evaluation of utility relocation costs and subsurface risk drivers.

## **Task 6 - Evaluate Soil Conditions and Preliminary Wetland Discussions**

During and following building location selection by the MoPoBAC, Weston & Sampson performed subsurface investigation and environmental assessments to reduce subsurface unknowns and potential complications that could affect the overall design and construction.

### **Subsurface Investigation**

- Test Pits: With the support of DPW's excavator and operator, Weston & Sampson performed seven (7) test pits on August 21, 2025, to better understand the subsurface soil and drainage conditions present at the pond. Weston & Sampson's soil evaluators and Geotechnical Engineers were on site to record observations including soil types, groundwater, and collected samples.



### Test Pit Plan

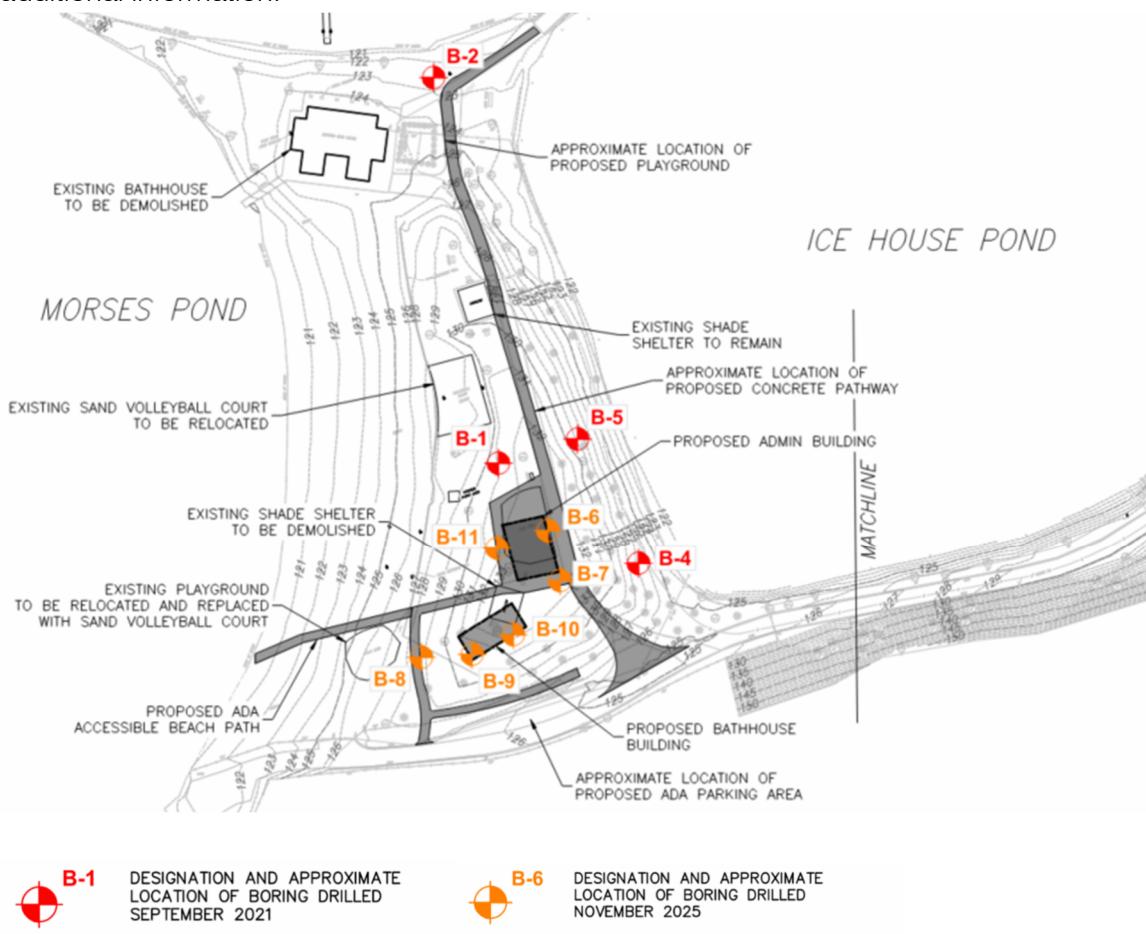
Subsurface conditions were assessed using a limited number of test pits, and variations should be expected across the site. Topsoil (4–10 in.) was found at most locations, except TP-2, which contained about 9 in. of beach sand. Below these layers, undocumented fill was present in most pits to depths of about 4 ft, occasionally containing debris. Buried topsoil was identified in TP-5 and TP-6 beneath the fill. Native sand and gravel were encountered below these layers in all pits, extending to depths of 4–9 ft. Groundwater was observed at depths of 4.9–8.2 ft and is expected to fluctuate seasonally and with pond levels; perched water may occur near the surface during wet periods.

From a geotechnical perspective, based on the test pits performed during August 2025, paired with the information gathered in 2021, of the two proposed building sites, Alternative B (north) is preferred geotechnically due to lower risk of unsuitable fill, while Alternative A (south) may be acceptable but poses greater uncertainty near historic shoreline and B-5.

Refer to Appendix G, *Test Pit Results – Stormwater, August 2025* and Appendix H, *Supplemental Geotechnical Explorations, September 2025* for additional information.

- Geotechnical Borings: Weston & Sampson's Geotechnical Engineers coordinated and observed six (6) additional borings in the proposed building locations with assistance of a

third-party drilling/boring contractor. The additional borings were performed to get a better understanding of the deeper soil conditions that the test pits were not able to provide. The results have allowed for a more accurate estimate of excavation and structural elements needed to support a building at the proposed locations. In general, subsurface conditions near the proposed bathhouse and administration buildings generally consist of surface materials overlying fill and native sand/gravel. Fill was found in 5 of 13 explorations (includes the seven test pits), typically up to 4 ft deep, but as much as 8 ft at B-6. The 2021 geotechnical recommendations remain valid: both buildings can be supported on shallow spread footings after removing fill within the zone of influence beneath foundations. Most fill will likely be removed during footing excavation, though deeper excavation may be needed near B-6. A geotechnical engineer should oversee subgrade preparation, and the project budget should include a contingency for localized excavation and replacement of loose fill near B-6. Refer to Appendix I, *Supplemental Geotechnical Explorations*, November 2025 for additional information.



Boring Plan depicting the locations of the 2021 borings and the 2025 borings

### Environmental Investigation/Assessment

- **Phase I ESA:** In collaboration with the geotechnical investigations, Weston & Sampson's Licensed Site Professionals (LSP) performed a Phase I Environmental Site Assessment

(ESA) in general accordance with the United States Environmental Protection Agency (EPA) All Appropriate Inquiries (AAI) Final Rule and to satisfy the performance standards set forth in ASTM Standard Practice E1527-21. The Phase I ESA identifies Recognized Environmental Conditions (RECs) at the property and evaluates the potential for a release of oil and/or hazardous materials (OHM) to the environment.

Weston & Sampson identified one Historical Recognized Environmental Condition (HREC): the documented presence of metals from a past release (RTN 3-11653), which achieved regulatory closure for unrestricted use. No significant data gaps were found. Additional investigation is not recommended; however, if construction occurs in the southwestern portion of the property where residual impacts remain, soil sampling and analysis should be performed to inform construction costs and management of impacted soil.

Refer to Appendix J - *ASTM Phase I Environmental Site Assessment Report, September 2025* for additional information.

### Task 7 - MoPoBAC Reviews and Recommends Building Location to NRC

On September 29, 2025, the MoPoBAC held its fourth meeting to discuss and vote on the preferred alternate concept. The vote resulted in three votes for Alternate A (Modified South-Side Building Location) and four votes for Alternate B (North-Side Building Location). Following the decision, the design team addressed concerns by offering a north building solution that made minor adjustments to increase open lawn space and enhance views to the north (Alternate AB). At the NRC's October 9 meeting, all three alternates were reviewed.

After further discussion and evaluation, on October 22<sup>nd</sup> the NRC voted to move forward with Alternate A.



Alternative A

Alternative B

Alternate AB

## **Task 8 - Finalize Project Scope, Conceptual Building Design, Project Budget, and Schedule**

With the decision finalized, Weston & Sampson and Maryann Thompson Architects prepared a comprehensive project scope, conceptual building design, cost estimate, and project schedule, detailed in the following sections of this report.

### **Project Milestones**

The following tables outline the key milestones leading up to and during the supplemental feasibility study.

#### Preceding the Study

January 18, 2024	Rec Commission presents feasibility study to NRC
January 31, 2024	NRC responds to feasibility study with concerns to be addressed
February 2, 2024	NRC votes to support request from CPC for design funds, contingent on issues being addressed in Design Phase.
March 2024	Town Meeting approves \$925K CPC appropriation for design
May 9, 2024	NRC appoints Morses Pond Beach Advisory Committee. Site walk and 6 meetings between May and December 2024.
August 2024	MOPO Beach Advisory Committee finalizes recommendations
October 2024	NRC votes to carry capital request as Proponent and appoints FMD to manage a supplemental feasibility study.
December 2024	CPC votes to approve \$168k request to NRC for supplemental study

#### Supplemental Study Begins

January 2025	PBC advises Design phase funds (previously appropriated) not available to address Feasibility phase issues.
March 2025	Advisory Committee votes 12-0 in support of supplemental study
April 1, 2025	Annual Town Meeting
May 21, 2025	Kick- Off Meeting & Site Walk
June 6, 2025	MoPo Beach Advisory Committee Meeting #1
July 29, 2025	MoPo Beach Advisory Committee Meeting #2
August 5, 2025	Invasive species and wildlife assessment performed by W&S
August 6, 2025	Tree inventory performed by Hartney Greymont
August 21, 2025	Phase 1 Environmental Site Assessment field observation
August 21, 2025	Test pits performed by the Town and observed by W&S for stormwater, environmental, and geotechnical analysis
September 3, 2025	Walden Pond Site Visit
September 15, 2025	MoPo Beach Advisory Committee Meeting #3
September 29, 2025	MoPo Beach Advisory Committee Meeting #4
October 9, 2025	NRC reviews recommendations from MoPoBAC
October 22, 2025	NRC votes on MoPoBAC recommendations
January 23, 2026	95% Draft Supplemental Feasibility Report submitted to NRC and made available to other committees and the public on their website
January 28, 2026	MoPoBAC reviews 95% Draft Supplemental Feasibility Study Report.

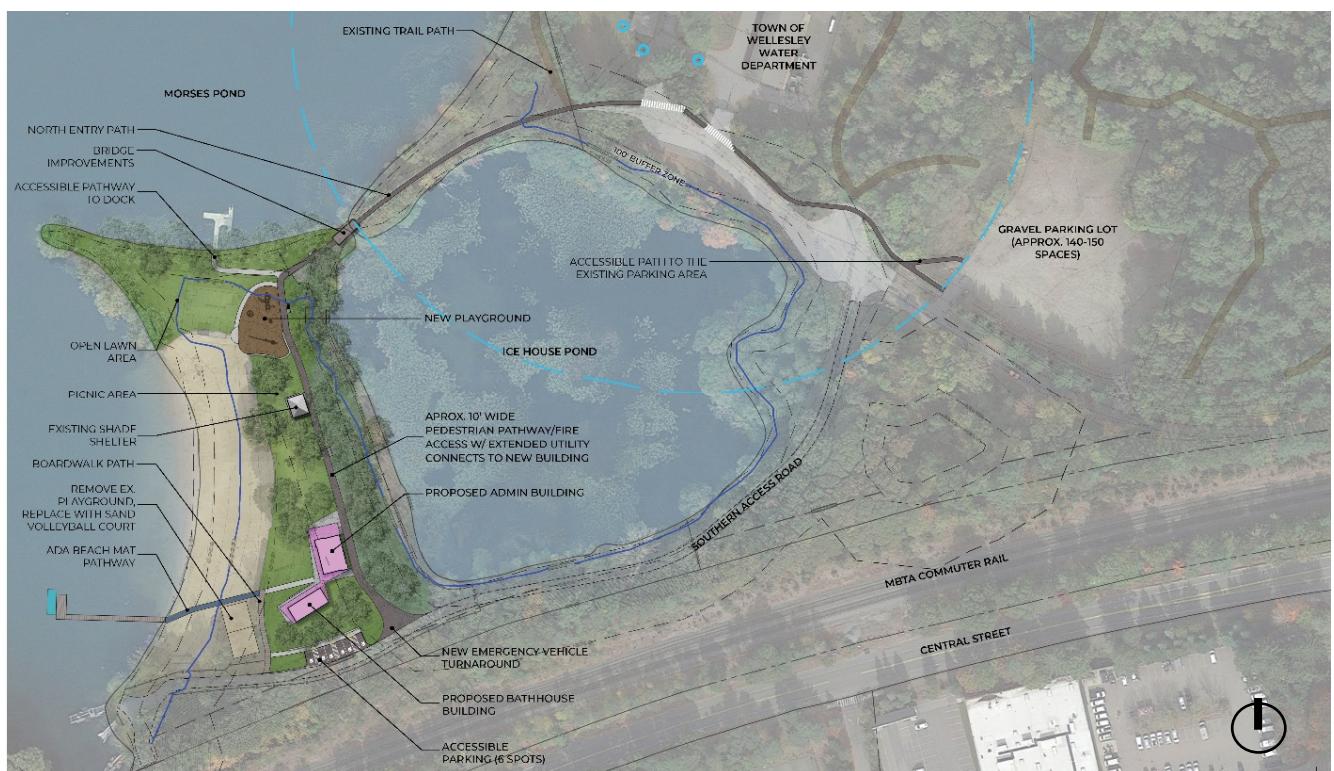
<b>January 29, 2026</b>	Presentation to the NRC. NRC confirms 95% Draft Report is ready to be shared with the PBC
<b>February 12, 2026</b>	PBC comments on report and reviews Weston & Sampson's contract
<b>February 13, 2026</b>	Deadline for NRC to submit to the design team & FMD any final comments/edits to the report
<b>February 16-20, 2026</b>	Weston & Sampson incorporates any final comments into the report
<b>February 24, 2026</b>	NRC approves the project depicted in the final report to move into design and assigns a project liaison
<b>February 26, 2026</b>	PBC approves Weston & Sampson contract
<b>February 27, 2026</b>	Design Phase begins

## 4. PREFERRED CONCEPTUAL PLAN

### SCOPE OF PHYSICAL IMPROVEMENTS

#### Conceptual Site Design

Representing an advancement from the previous master plan, this current 'preferred' conceptual plan has been refined to include findings from the supplementary study's site investigation, MoPoBAC and other stakeholder input, and community priorities. With a focus on accessibility, reduced site disturbance, reduced environmental impacts, budget, and the overall management of operations and public safety, the following plan was developed.



Approved Conceptual Site Plan

Refer to Appendix O, *Approved Conceptual Site Plan* for the enlarged plan.

Key features of the approved conceptual site plan include the following:

### **New Playground**

The existing playground is split into two areas on site: the play structure located within the southern beach area and the set of swings located along the existing path. In the proposed plan, it will be combined into one play space and relocated to the northern portion of the property. The intent is to replace what exists today with similar, yet updated play options including multiple bays of swings, an age 2 to 12 year old play structure, and additional ground level play, ensuring the new playground includes accessible paths to each element and inclusive play features that support the needs of all.



### **Lawn Areas**

The heart of the beach are the existing lawn areas; beach goers have expressed a desire to maintain and enhance this feature. These spaces offer a cooler, softer alternative to sand, creating a comfortable place to relax and enjoy the beach environment. Although additional maintenance will be essential, including weekly mowing and the implementation of an organic pesticide program, it is outweighed by the added value of having a natural, flexible space for patrons to utilize. Irrigation is not planned for these lawn spaces.



### **Accessible Parking**

A total of six (6) ADA accessible parking spaces are proposed at the southern end of the property, closest to the proposed buildings. These serve to replace the informal pull-off area currently used as closer accessible parking option. A series of accessible paths and an accessible boardwalk lead from the parking area to the buildings, plaza, and main path which leads to the rest of the site.



### **Emergency Vehicular Turnaround**

The existing path entrance has been widened to accommodate the turnaround radius for emergency vehicles as well as food trucks and vendors. This portion of the path is designed for vehicles only and will have designated signage for public safety and awareness.

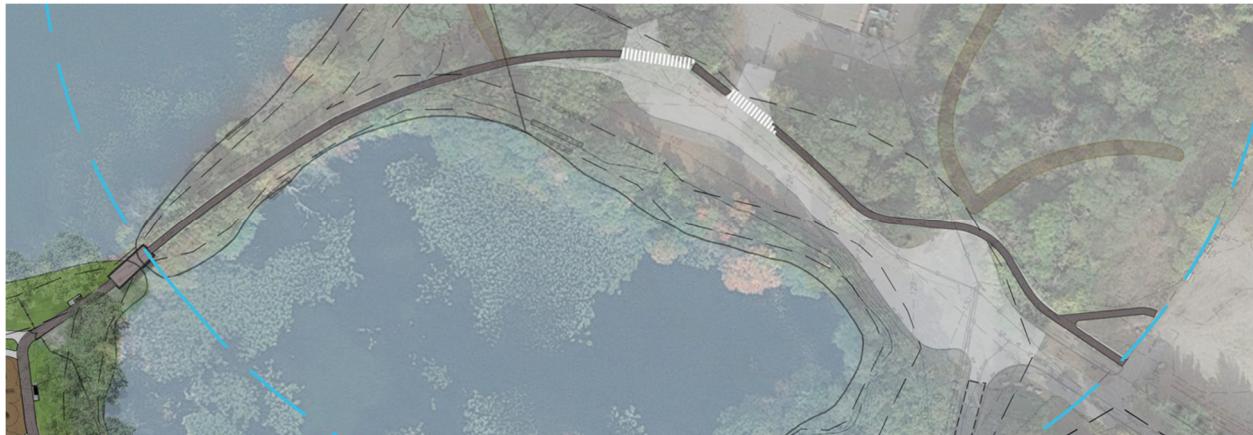


### **Northern Entry Path**

The northern pathway connecting the main entrance to the existing gravel parking lot will be upgraded to meet full ADA accessibility standards. Improvements will include milling and overlaying

the existing path, as well as selective full-depth pavement replacement where the path veers to the side of the existing access road for the Water Department buildings. Relocating the pedestrian path of travel outside the limits of the access road ensures a clear separation between pedestrian and vehicular circulation. The improvements to the northern path from the bridge to the existing parking area fall within the Zone I Wellhead Protection Area and will need to be reviewed and approved by the Massachusetts Department of Environmental Protection.

Additionally, the existing pedestrian bridge will be renovated with enhancements to the wall façade, guardrails, and paved surface.



### Site-Wide Pedestrian Access

Achieving accessible circulation throughout the Morses Pond facility remained a primary design objective, consistent with the goals established in the prior Master Plan. Because this supplemental study emphasized reducing overall site impacts, the design team was tasked with maintaining ADA-compliant pedestrian routes while minimizing grading, earthwork, and disturbance to existing natural features.

The site's existing topography presents several challenges, particularly in areas with steep grade changes. Through iterative grading analysis and careful coordination with proposed building and plaza locations, the design ensures full ADA accessibility across the facility. All pedestrian walkways have been designed with slopes below 5%, meeting accessibility requirements without necessitating extensive regrading.

To achieve this, multiple grading studies were undertaken to balance existing terrain with new construction elements. Retaining walls at the small parking area and strategic reuse of the existing pathway alignment helped establish a building finished floor elevation (FFE) that minimized both cut and fill. This approach significantly reduced impacts to surrounding vegetation and mature trees.

The main building entry plaza has been designed with cross slopes not exceeding 1.5% in any direction, remaining well within ADA guidelines. Additional accessibility improvements include an accessible beach mat system to expand access to the beach and existing boat dock, as well as an accessible route to the floating dock located at the northern edge of the site.

Proposed materials for the site-wide pedestrian network include bituminous concrete, concrete unit pavers, and wood decking. Each of these materials meets ADA requirements for accessible surfaces.



*An accessible beach mat for wheelchair users*

## **Conceptual Building Design**

As described in the prior Master plan, the preferred bathhouse scheme was determined to be a two-building solution. Both structures are proposed to have overhang/canopies to provide both shade from the sun and shelter from passing rain showers.

### **Finish Materials / Design Character**

During the prior Master Plan, a series of images were presented to stakeholders as a way to discuss and select a preferred design character for the buildings. Through this process, a consensus was formed on the design character that the new buildings should exhibit. The Supplemental Feasibility Study intends to retain the previously vetted building design and characteristics. Below is a summary of the characteristics that were requested by both Town residents and Town staff members.

- Simple, modest appearance (not fancy or ornate).
- Natural material palette (i.e., wood) was preferred to man-made materials.
- Durable materials for ease of maintenance and longevity.
- Bathrooms and staff spaces opening toward the beach area.
- Lots of natural light for interior spaces.
- Blending of landscape and building through the use of building siting or layering of architecture and landscape elements.
- Roof with overhangs for covered gathering areas to provide areas of shade.

Maryann Thompson Architects worked with project Mechanical, Electrical, Plumbing and Fire Protection engineers to develop a basis of design for building systems. A brief summary of these systems and the building structural system can be found on the following page.

### **Structural Systems**

Structural foundation systems will include concrete slab on grade foundation system with shallow concrete footings. The wall structure will consist of typical wood framing. The roof structure is proposed to be timber beams supported by steel columns or wood framed bearing walls.

framing. The roof structure is proposed to be timber beams supported by steel columns or wood framed bearing walls.

## HVAC

The primary mechanical system of the proposed facility will be central exhaust fan ducted to all occupiable spaces. This system will be complemented with natural ventilation through louvers and operable windows. For the staff areas an air-source heat pump (VRF) system will be installed to provide heating and cooling.

## Electrical Systems

Electrical systems shall be designed to provide the lowest level of base energy use achievable. Lighting will be provided with all LED fixtures and controlled through daylight and occupancy sensors where practical. Any site lighting that will be provided will comply with dark-sky friendly products to minimize light pollution. A fire alarm system will be provided to meet all current codes and safety standards.

## Plumbing Systems

Plumbing systems will be designed with water conserving fixtures. Electric point of use water heaters will be used over a centralized water heating system to conserve energy.

## Sustainability

As supported by town and stakeholder input, including the Climate Action Committee's Sustainability Guidelines for Municipal Buildings, the study team approached the design of the new bathhouse facility with sustainability as a key consideration. The bathhouse will feature a range of sustainability features and strategies such as:

- Daylighting: Large windows allow interior spaces to be lit during the day by natural sunlight rather than electric light.
- Cross Ventilation: The building will be designed to be cooled down by natural breezes through the use of operable windows. This will reduce the use of AC systems in any conditioned spaces.
- Roof Overhangs: Large overhangs shade the exterior envelope to keep the building cooler in the summer use season.
- Materials: Specify wherever possible the use of locally available and environmentally friendly materials
- LED lighting: All lighting to be highly efficient LED lighting, lowering the energy consumption of the building. All exterior lighting will comply with dark-sky requirements.
- Electric Building Systems: HVAC and hot water systems to be all electric, eliminating the use of fossil fuels.
- Potential Future PV system: a PV system located in the parking area or elsewhere could be installed to offset building energy use at a future time.

## Conceptual Building Images (from prior Master Plan Study)



The images above were produced during the prior Master Plan. The general character and structure are to remain the same, with the following items updated:

- Overall square footage reduced from 3,191 sf to 2,292 sf. This was achieved by reducing the programmatic areas as follows:
  - Women's bathroom: reduced from 6 stalls and 3 changing areas to 3 stalls and 2 changing areas
  - Men's bathroom: reduced from 3 stalls, 3 urinals, and 3 changing areas to 1 stall, 2 urinals, and 2 changing areas
  - Eliminated the concession space; vending options to remain
  - The lifeguard changing areas consolidated into the guard room

The reduction reflects the desire to minimize site impacts while also providing the necessary facilities for functional and safe beach operations.

- The buildings are designed for seasonal use:
  - Mechanical systems provide conditioned spaces for the staff and administration areas (Ticketing, Guard Room, Beach Manager Office and First Aid). Other areas will not be conditioned with the exception of the mechanical space as necessary for the operation of building systems.
  - The super-insulated building envelope was modified by reducing the insulation requirements to an appropriate level for a seasonally operated facility. During the winter, building systems will be shut down or operating in a minimal state to conserve energy in the off-season.
- To reduce the amount of impervious cover on the site from previous study, roof overhangs were reduced.

## Proposed Building Program

The conceptual building design will inherit that of the buildings described and depicted in the previous Master Plan Study but with a reduced footprint that still achieves the spaces and amenities required for operational and recreational programming. The following depicts the reduced overall footprint (from 31,91 sf to 2,292 sf), and square footage (sf) allocated for each space.

<u>Interior Spaces Total:</u>	<u>2,292 sf</u>	<u>Exterior Elements:</u>
<b>Public Uses</b>		
• Women's Bathroom	<b>300 sf</b>	
◦ Separate bathroom / changing areas		
• Men's Bathroom	<b>300 sf</b>	
◦ Separate bathroom / changing areas		
• Accessible / Family Bathrooms	<b>120 sf</b>	
◦ (2) provided		
<b>Staff Uses</b>		
• Gatekeeper office	<b>160 sf</b>	
◦ Visitor walk-up window		
• Guardroom	<b>250 sf</b>	
◦ Room for lockers / cubbies		
◦ Storage for equipment		
• First Aid	<b>130 sf</b>	
◦ Room for first aid bed, supply cabinet and desk		
◦ Contains one hand sink		
• Beach manager's office	<b>80 sf</b>	
◦ For full time staff use when on site		
<b>Storage</b>		
• General storage area	<b>644 sf</b>	
<b>Mechanical / Storage</b>		
• General storage/mechanical areas	<b>100 sf</b>	
<b>Grossing Factor (10%):</b>		
	<b>208 sf</b>	

## **Building Code Review**

The following Building Code review has been taken from the prior Master Plan Study and still applies to the current building design.

### Applicable Codes

The following primary codes are applicable to this project:

- Accessibility - Massachusetts Architectural Access Board, 521-CMR and the Americans with Disabilities Act Guidelines (ADAAG).
- Building - Massachusetts State Building Code (780 CMR) 10th Edition. 780 CMR is an amended version of the 2021 International Building Code.
- Energy - International Energy Conservation Code (IECC) 2021, plus certain amendments in 780 CMR 115-AA
- Electrical - Massachusetts Electrical Code, 527 CMR §12.00. The Massachusetts Electrical Code is an amended version of the 2023 National Electrical Code (NFPA 70).
- Fire Prevention - Massachusetts Fire Prevention Regulations, 527 CMR.
- Mechanical - International Mechanical Code, 2021, as adopted and amended by 780 CMR (IMC).
- Plumbing - Massachusetts Fuel Gas and Plumbing Codes, 248 CMR

### Assumptions

The code review and this report have been prepared based on the following specific assumptions:

1. The building will not be equipped throughout with an automatic sprinkler system. The building will have a fire alarm system.
2. If any hazardous materials are to be located within the buildings now or in the future, the amounts will be limited to the exempt amounts permitted by 780 CMR §307.1.
3. There will be no Hydrogen Cutoff rooms, paint shops or similar incidental uses.

### Use and Occupancy Classification

The following Uses are considered included in the Admin & Safety Building:

1. Restroom Areas, breakroom and first aid room (Utility and Miscellaneous Group U per 780 CMR §312)
2. Office spaces (Business Group B per 780 CMR §304.1)

The following Uses are considered included in the Bathhouse:

1. Restroom Areas (Utility and Miscellaneous Group U per 780 CMR §312)
2. Moderate Hazard Storage (Storage Use S-1 per 780 CMR §311)

## **Mixed Use Approach**

Because two or more occupancies are provided, compliance with Section 508.1 Mixed Use and Occupancy is required.

508.1 Mixed occupancies. Each portion of a building shall be individually classified in accordance with Section 302.1. Where a building contains more than one occupancy group, the portion thereof shall comply with the applicable provisions of Section 508.2, 508.3 or 508.4, or a combination of these sections.

Given the uses present and proposed total sf, a non-separated mixed-use approach is recommended. The building is addressed as a non-separated mixed use with Utility and Miscellaneous Group (U) and Moderate Hazard Storage (S-1) areas present.

## **Construction Classification**

Type V-B construction is proposed wherein the structural elements, exterior wall and interior walls can be of any material allowable by code. Occupancy classification U allows for a maximum one-story building with up to 5,500 sf of area.

## **Means of Egress**

At least one (1) accessible means of egress is provided from an accessible room or space. There are no spaces where more than one (1) means of egress or exit is required. Accessible means of egress must provide a continuous path of travel to a public way (780 CMR §1009.2).

Exits are located such that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed line of travel does not exceed 200-feet (780 CMR §1017.2).

## **Fire Protection Systems**

- Sprinkler Systems - An NFPA 13 compliant sprinkler system is not required (780 CMR §903.2).
- Fire Extinguishers - Portable fire extinguishers are required in accordance with 780 CMR §906 and the 527 CMR. All fire extinguishers to be provided are to be in accordance with NFPA 10, Standard for the Installation of Portable Fire Extinguishers (780 CMR §906.0)
- Fire Alarm System - A fire alarm system is required to be provided per 780 CMR §907.2.

## **Fire Department Access**

527 CMR addresses fire department access requirements and states that the head of the fire department shall require and designate public or private fire lanes as deemed necessary for the efficient and effective use of fire apparatus. The arrangement of fire department access to the project must be reviewed with the Wellesley Fire Department. Preliminary plans were reviewed with the Wellesley Fire Department and were found acceptable. Once the project reaches the Design Development phase an additional review will occur.

## Plumbing Fixtures

Under the plumbing code (248 CMR), plumbing fixtures are required based on use and occupancy. Total fixtures supplied are to comply with Section 10.10 denoting minimum plumbing facilities as required by total occupant load. The minimum fixture count is computed through 10.10 Table 1 in 248 CMR based on a max park occupancy of 1,000 people under the use classification of a Public Beach. With 500 women and 500 men the minimum fixture count is 1 toilet for women, 1 toilet for men and 2 lavatory for each. Fixtures provided in the proposed facility in the following quantities exceed the minimum required to meet facility programmatic requirements:

### Women's Room:

- 3 water closets
- 2 lavatories
- 1 mop sink
- 1 mop sink

### Men's Room:

- 1 water closets
- 2 urinals
- 2 lavatories

Additionally, two family restrooms which include one water closet and one lavatory each are provided. An exterior hi/low water fountain with a water bottle filler, and a rinse station are also provided.

## Accessibility

The entire building must be designed to be accessible to, functional for and safe for use by persons with disabilities in accordance with 521 CMR and the Americans with Disabilities Act (ADA). This includes site access, entrances, bathrooms, and all public spaces within the building.

## **Permitting Requirements**

Based on the current site and building design, we anticipate the following permits and approvals will be required:

- Wetlands Protection ByLaw / Regulations Notice of Intent: Work will occur in the 100-year flood zone and buffer zone
- NPDES Construction General Permit: Disturbance > 1 acre of land
- Town of Wellesley Site Plan Approval (ZBA)
- Town of Wellesley Design Review Board (DRB)

### Permits not needed

- Army Corps of Engineers (ACOE) SVN / PCN: The type and location of work does not fall under ACOE jurisdiction. ACOE permitting falls under either Section 10 or Section 404 requirements. See below for additional discussion.
  - Section 10 is for work in navigable waters; this pond is not considered navigable
  - Section 404 is for discharge of fill below OHWM of waters of the United States (WOTUS). While the invasive species management work will occur within WOTUS, the work does not constitute “discharge” as defined by ACOE.

- MassDEP 401 Water Quality Certificate: Impacts to land under water will be less than 5,000 sf
- MassDEP Chapter 91: Morses Pond is NOT considered a Great Pond (not listed on the Massachusetts Great Pond List)
- MEPA: None of the thresholds are triggers, including disturbance of land > 25 acres, disturbance of >5,000 sf of wetlands, etc.
- MBTA Zone of Influence (ZOI): No work is occurring within the MBTA ZOI (30-foot offset from the property line).

See Appendix D, *Permit Feasibility Assessment, June 2025* for additional details on permit thresholds.

## **ADA/MAAB Accessibility and Grading Impacts**

Providing full ADA-accessibility throughout the Morses Pond facility has been one of the main goals since the first master planning process. The design team performed a grading study and proposed the following improvements to ensure federal ADA/Massachusetts Architectural Access Board (MAAB) accessibility guidelines were met,

- Accessible Routes
  - Continuous, unobstructed paths connecting parking areas, restrooms, concessions, and beach access points.
- Slopes:
  - Walkways:  $\leq 5\%$  (1:20)
  - Cross slopes:  $\leq 2\%$  (1:50)
  - Firm, stable, and slip-resistant surfaces (e.g., concrete, asphalt, compacted stone dust)
- Designated accessible parking spaces with:
  - Proper dimensions (8 ft wide + 5 ft access aisle)
  - Located closest to accessible routes
  - Clear signage and pavement markings
- Beach Access
  - Accessible mats or boardwalks to reach the high tide line
  - Firm and stable surfaces for mobility devices
  - Access to waterfront amenities
- Fully ADA-compliant restrooms and changing areas:
  - Door clearances (32 in minimum)
  - Turning radius (60 in diameter)
  - Grab bars, accessible sinks, and fixtures
  - Family/unisex restrooms recommended
- Amenities
  - Accessible seating and shaded areas
  - Drinking fountains and other features at ADA-compliant heights

- Access routes to play equipment and transfer platforms within the playground
- Signage
  - Clear, high-contrast, tactile signage for all accessible routes and facilities

Although the accessible parking at the existing parking lot meets code requirements for the facility, the six additional proposed ADA spaces along the Southern Access Road provide a closer option to the buildings for those who find the distance of the existing spaces challenging.

With the refined grading, all pedestrian routes maintain ADA-compliance. The one area where the slopes exceed 5% is at the emergency vehicle turnaround area at the southern end of the facility. This area is designed for vehicles only.

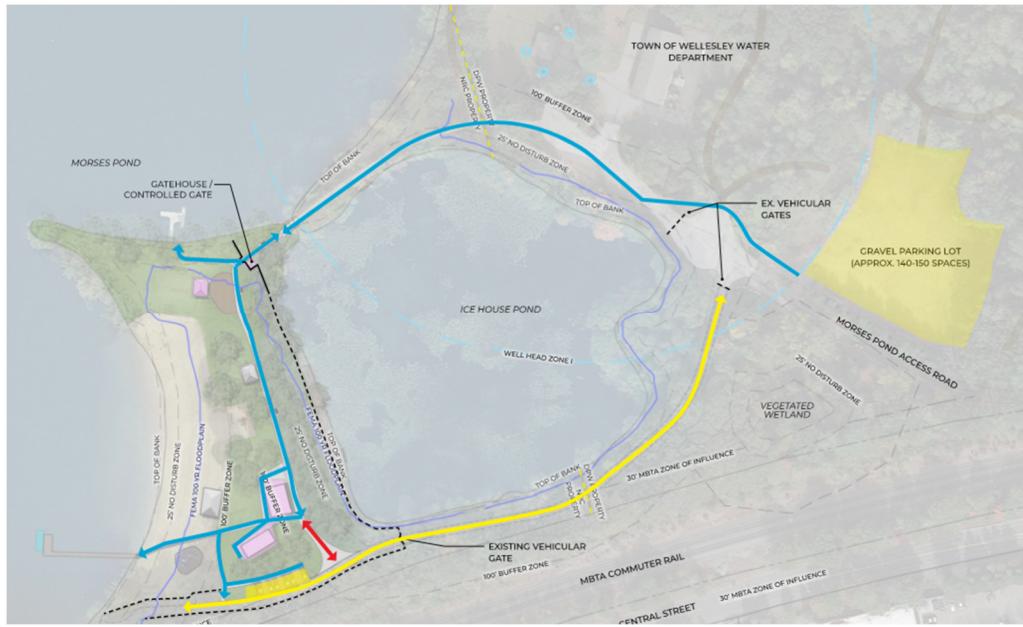
Additionally, an accessible mat system is proposed to allow guests with disabilities to get across the sand to the docks and water. These mats are easy to install and can be removed during the months when the beach area is closed to the public.

### **Pedestrian and Vehicular Circulation Patterns**

The graphic below illustrates the separation of vehicular and pedestrian circulation. All pedestrian access will be directed to the north, consistent with the current beach entry. Visitors will check in with staff at the entrance gate for season or daily passes and exit through the same point.

The Southern Access Road will remain vehicle-only, as the narrow space between Ice House Pond and the steep wooded slope cannot accommodate a pedestrian path without disturbance to the established vegetation and work within the 25-foot No Disturbance Zone along Ice House Pond's shoreline. A combination of existing and new fencing and gates will allow staff to monitor beach access from both ends.

Once inside the beach area, the main, north-south pathway will provide access to the upper amenities including the new play area, existing pavilion to remain, and the Bathhouse building and plaza space. Secondary paths from the main corridor lead to the northern floating dock, the accessible beach mats, and the boardwalk path that connects to the accessible parking area at the south.



## Utility Requirements

Utility connections must be extended south, approximately 300 linear feet to the new building location at the south end of the site. The water line, cable (internet), electrical conduit, and wiring will traverse the site under the proposed north/south pedestrian path, limiting additional disturbance to the adjacent tree line. Sewer connections will be made from the southwest where the existing forced main comes into the site. The graphic plan below conceptually shows the location and type of utility runs anticipated.



## Stormwater Management Strategy

Stormwater will be managed on site to best protect nearby areas from stormwater erosion and sediment displacement. As the design progresses to construction, locations for stormwater retention areas, and green infrastructure will be implemented where appropriate to mitigate and infiltrate the stormwater, ensuring it gets managed and treated before it enters the pond and/or existing stormwater system.

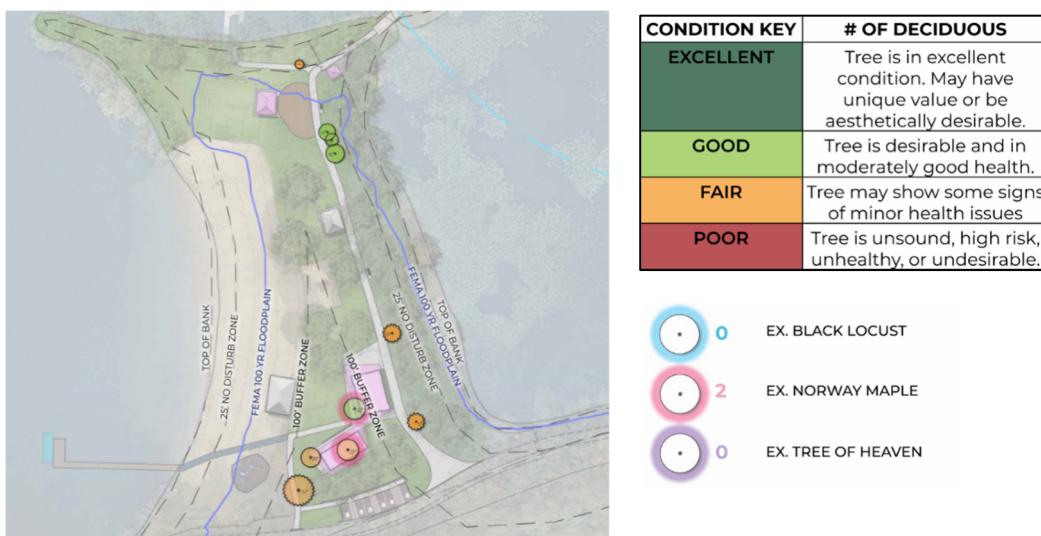
In addition to the management of stormwater on site, approximately 44.1 cubic yards of compensatory storage will be required because of the grading and cut/fill within the 100 Year FEMA floodplain. Compensatory storage is a floodplain management requirement that ensures any flood storage volume lost due to development — such as filling or construction — is replaced with an equivalent volume elsewhere within the floodplain.

## Tree and Vegetation Consideration, Mitigation Requirements

As part of the supplemental feasibility study, an inventory of existing trees and vegetation was conducted to assess their size and health. This informed the grading plan, which aimed to preserve as many trees as possible. Invasive species were also identified through the Wildlife Habitat Evaluation. Using this information, the design and grading were adjusted to minimize tree removal and maintain the natural environment and summer shade.

The graphic below shows trees impacted by the approved conceptual site plan: seven (7) deciduous and three (3) evergreen trees will be removed due to building placement or grading. Of these, four (4) are in good condition and six (6) are in fair condition. Two (2) deciduous trees in the building footprint are invasive Norway maples.

Six (6) of the affected trees are within the 100-foot buffer zone. In compliance with the Wetlands Protection Act and Wellesley Wetlands Bylaw, six (6) new native trees will be planted to replace those required removals.



## **Lighting Requirements**

Lighting is required at the building only for safety. All exterior building lighting shall be dark sky friendly and follow dark sky guidelines. An example is the document “Guidelines for Good Exterior Lighting”, published by Dark Sky Society and found online.

Site lighting is not a requirement and has not been included in the proposed improvements.

## 5. OPINION OF PROBABLE COST FOR CONSTRUCTION

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Once the preferred conceptual plan was approved, Weston & Sampson and the Town worked with PM&C to assemble an opinion of probable cost. The chart below summarizes the building and site costs, and includes percentages to account for contingency, market condition escalation, general conditions and other contractor overhead costs. The total opinion of probable construction cost for this project is projected to be just over \$6 million. Refer to Appendix P, *Opinion of Probable Cost, PM&C* for the full construction cost breakdown.

<b>Contractor Construction Cost</b>	
New Bathhouse/Admin Building*	\$2,556,196
Sitework*	\$1,509,478
<b>Subtotal</b>	<b>\$4,065,674</b>
Design and Costing Contingency (15%)	\$609,851
Escalation/Market conditions to 2028 (9%)	\$365,911
General Conditions, Mobilization, Bonds, Overhead & Profit (24.5%)	\$996,090
<b>Subtotal</b>	<b>\$1,971,852</b>
<b>Total</b>	<b>\$6,037,526</b>

\* Pricing done for 2026 construction costs

The total resulting cost breakdown for the two categories are as follows,

- New Bathhouse/Admin Building: **\$3,795,951**
- Sitework: **\$2,241,575**

Costs were updated and are now based on the additional following site investigations previously not performed:

- In-depth grading study
- Stormwater test pits to understand infiltration and groundwater
- Geotechnical borings to understand loading/capacity of the soil
- Environmental site assessment to evaluate the presence of oil and/or hazardous materials
- Tree inventory and health assessment
- Invasive vegetation inventory and wildlife assessment

## 6. PROJECT BUDGET

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### Design/Bidding Phase Budget

The table below summarizes the reduced cost (\$70,000 savings) for the Design / Bidding Phase as the result of work performed in this Supplemental Feasibility Study.

	Master Plan Study	Supp. Feasibility Study
Architects & Engineers	\$682,900	\$632,900
Testing & Commissioning	\$85,000	\$65,000
General Supplies & Services	\$41,000	\$41,000
Contingencies	\$115,935	\$115,935
<b>Total</b>	<b>\$924,835</b>	<b>\$854,835</b>
<b>Delta</b>		- \$70,000

### Construction/Warranty Phase Budget

The table below summarizes the project costs and fees associated with the Construction/Warranty Phase, including the Contractor's construction costs shown in Section 5 of this report. The total reduced cost from the prior Master Plan Study equates to \$250,864.

	Master Plan Study	Supp. Feasibility Study
Construction	\$6,319,032	\$6,187,526*
Professional Services & Testing	\$287,600	\$268,550
Owner's Clerk & Project Manager	\$313,600	\$270,000
General & Temporary Expenses	\$303,000	\$266,000
Contingencies	\$988,119	\$968,411
<b>Total</b>	<b>\$8,211,351</b>	<b>\$7,960,487</b>
<b>Delta</b>		- \$250,864

\* Includes the Building cost (\$3,795,951) and Site cost (\$2,241,575), plus the cost for site access road repairs (DPW), and existing bathhouse abatement.

A breakdown of items included in the above totals, as well as funding needed for the design phase, are detailed in Appendix Q, *Total Project Budget-Detailed Breakdown*

## 7. DESIGN AND CONSTRUCTION SCHEDULE

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The following schedule outlines the estimated duration needed to take the project from beginning of design to the end of construction. The schedule assumes that the project will not require a debt exclusion.

	DURATION	ANTICIPATED DATES
<b>Landscape Architecture, Architecture and Supportive Engineering, Site / Civil</b>		
Design Contract Signed. Design Phase Begins	-	February 27, 2026
Kick-off	-	March 2, 2026
100% Schematic Design & Opinion of Probable Cost	Assume 16 weeks (4 months)	March 2, 2026-June 19, 2026
100% Design Development & Opinion of Probable Cost	Assume 16 weeks (4 months)	June 22, 2026-October 9, 2026
Town Review Period for 100% Design Development & Opinion of Probable Cost	2 weeks	October 12, 2026-October 23, 2026
60% Construction Documents + Technical Specifications + Opinion of Probable Cost	Assume 12 weeks (3 months)	October 26, 2026-January 15, 2027
Town Review Period for 60% Construction Documents + Technical Specifications + Opinion of Probable Cost	2 weeks	January 18, 2027-January 29, 2027
Preparation of NOI, Stormwater Report, and Wildlife Habitat Assessment Update	Assume 4 weeks (1 month)	June 2026
Local Notice of Intent (NOI) for BLSF	Assume 12 weeks (3 months)	December 21, 2026-March 12, 2027
Town of Wellesley Site Plan Review (ZBA)	Assume 12 weeks (3 months)	December 21, 2026-March 12, 2027
Town of Wellesley Design Review Board	Assume 12 weeks (3 months)	June 22, 2026-September 11, 2026
95% Construction Documents + Technical Specifications	Assume 12 weeks (3 months)	February 1, 2027-April 23, 2027
Town Review Period for 95% Construction Documents + Technical Specifications	2 weeks	April 26, 2027-May 7, 2027
Final Bid Documents and Project Manual	Assume 8 weeks (2 months)	May 10, 2027-July 2, 2027
<b>Bidding &amp; Contract Award</b>		
Bidding Period	Allow 8 weeks	August 2027-September 2027
Special Town Meeting Vote for Construction Funds	-	End of October
Construction Contract Execution	-	November 2027
Contractor's Procurement	Allow 8 weeks (2 months)	December 2027-January 2028

Construction		
NPDES Construction General Permit	2 weeks prior to construction	January 2027
On-Site Construction	12 months (1 year)	February 2028- February 2029
Beach and Beach house Open to the Public		Summer 2029

Based on the anticipated schedule, the beach will be closed from January 2028 through January 2029 and will plan to reopen for Town use for the 2029 beach season. The possibility of keeping the beach partially open during the 2028 beach season by way of construction sequencing will be explored during the Design Phase.

The following page includes a Gantt chart, graphically depicting the dates listed above.

## TARGET DESIGN AND CONSTRUCTION SCHEDULE

