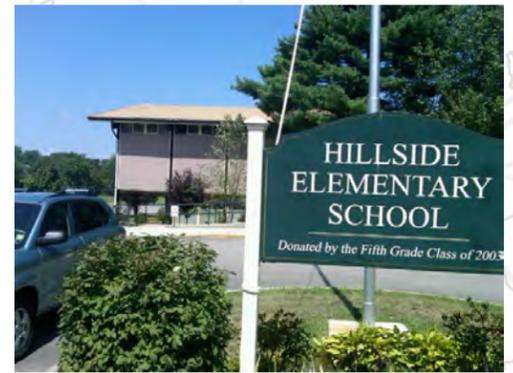


# Volume 1

## Town of Needham, MA 2014 Facilities Master Plan







This Facilities Master Plan report has been prepared under the direction of the Permanent Public Building Committee with the guidance of Town professional staff, facility groups and citizens collectively known as the Facilities Working Group.

The process that began in December of 2013 has been challenging, enlightening and informative for the numerous participants who worked throughout the year. This group of dedicated staff and citizens provided programming information necessary to study options, participated in workshops and in public meeting to consider sites and review conceptual options, and shared their informed opinions and wealth of information, so that the proposed solutions best solved the needs of the Town of Needham. The proposed pathways, timelines and budgets are conceptual and are meant to provide guidance as Town officials and committees consider building projects over the next 10 years.

We acknowledge the participants of this process and in particular George Kent, chair of the Permanent Public Building Committee, Kate Fitzpatrick, Town Manager and the entire Facilities Working Group.

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Dutifully submitted,

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December 2014



Photo 1



Photo 2: High Rock



Photo 3: Town Hall



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## INTRODUCTION

This report has been prepared under the direction of the Permanent Public Building Committee (PPBC) and the Facilities Working Group (FWG). The FWG, consisting of representatives of all major Town boards and committees as well as Town officials and department heads, user groups and citizens, provided guidance, analysis of conclusions and comments throughout the planning effort.

The Facilities Master Planning process, one year in length, began in December of 2013. It has included planning and programming meetings with personnel from departments identified to be included in the Master Plan, workshops with the FWG, and public forums. The public process was made transparent to the citizens of Needham through posting notices for all public meetings, PowerPoint presentations and meeting minutes on the Town Website.

The Facilities Master Planning process focused on identifying the most reasonable approaches for solving the individual building needs of each department and mapping possible expenditure timelines and scenarios for achieving these community goals and objectives. A comprehensive Facilities Master Plan, by its very nature, does not create a single pathway for future projects but rather establishes a framework of possible pathway options for the Town during the next five to ten years. Over time, needs change and develop, some issue may take precedence due to extraordinary circumstances, and future opportunities may present themselves that can affect the course of action in a new way. Thus, the Facilities Master Plan provides a broad framework for these future interconnected capital needs, but requires adjustment after each project is constructed. This flexibility creates a tool that the Town can use for many years.

The study began with a review of the previous Facilities Master Plan that was completed in 2006, in order to understand which of those projects had been realized and under what circumstances. In addition, other recently completed building feasibility studies were made available and are referenced in this report. These include programs and planning options for school projects, school administration, and some recreation projects; each were comprehensive studies completed directly

with the end-users and under the guidance of the PPBC. Visits were made by the design team and key Town employees to pertinent sites and buildings and some facilities were examined in depth. Detailed programming was completed for the Fire and Police Departments, the Department of Public Works and recreation buildings. Conceptual design options were developed to test both program and site at their existing location and at alternative locations when current buildings or sites did not meet programming needs.

## OUTCOME FOR THE MASTER PLAN

Needham has completed the work defined in two master planning cycles and this third effort is an update plan for the next ten years. This Facilities Master Plan builds on the work accomplished during the past years and the planning efforts for new projects already underway. The Visioning Session with the FWG discussed potential issues, concerns and limitations for each of the projects under consideration. Goals that represent community visions and priorities were established to assist Town leaders as they make future decisions.

The specific goals and objectives identified by the PPBC and the FWG during initial planning meetings and the Visioning Session include:

- 1) Identify and address current issues of concern as well as emerging issues that will be important in the future
- 2) Evaluate space needs for:
  - Police and Fire Headquarters and Fire Station #2
  - The Department of Public Works (DPW) and Recycling and Transfer Station (RTS)
  - Memorial Park Building
  - Community Center and Ice Rink
- 3) Review and confirm needs of other departments through the use of other studies already completed:
  - Hillside, Mitchell and Pollard Schools
  - Needham High School
  - School Administration Building
  - Rosemary Pool

- Cricket Field Building
- 4) Determine optimum building and site sizes for all potential projects
  - 5) Evaluate alternative sites for potential new / relocated building uses
  - 6) Estimate probable costs for building and sites
  - 7) Develop a strategy and timeline for all projects
  - 8) Identify possible public / private partnerships
  - 9) Identify jurisdictional constraints

## SPACE NEEDS AND EVALUATION OF CURRENT FACILITIES

The collection of data is required in order to evaluate current conditions and to calculate future needs. An increase in population counts that use Town services, due to housing and business development, affect schools, police, fire, and public works departments and community amenities. In addition, the expectations for services must be taken into account as space needs are developed.

The needs assessment was conducted to determine space requirements for each identified department for at least 20-30 years. The work included the evaluation of existing buildings and their respective sites to identify the physical condition of the structures, code compliance, and suitability for reuse. Operations were reviewed, inventories of equipment were obtained, and detailed programming sessions with end users were held to identify and confirm program elements. In addition, many identified sites for possible relocation or expansion were explored to define their limitations and possibilities including: location, accessibility, site features, environmental impact, site development, availability, and special considerations. These resulting matrices outlined realistic sites for each program, land jurisdictions that might need to change, including conversion of passive recreation sites, how reorganization or relocation of a program could affect neighborhoods, schools or emergency response times, if the operations of a department could be enhanced by relocation to or reuse of existing town property, and how development costs might affect the decision to use a particular property.



Photo 4: Police Entry off of School Street



Photo 5: Hollis Building at Dedham Avenue



Photo 6: Needham High School

### Schools and School Administration

At the time of this report, the Town is planning for the replacement or upgrade of several schools including the Hillside, Mitchell and Pollard Schools, and expansion to Needham High School. Comprehensive site and building assessments have been completed for the elementary and middle schools, sites for temporary or new structures has been explored, and eligibility/feasibility work has been initiated with the Massachusetts School Building Authority (MSBA). The School Committee will work with the MSBA to analyze potential option. Scenarios include phasing plans for modular classrooms at DeFazio Park that could be used by each school during construction, or a new permanent school at this site. These new buildings or renovations, at existing or new sites, will accommodate the needs of the community and will modernize the learning environment. Work at the high school will provide for increased enrollment by providing additional classroom space and an expanded cafeteria.

School Committee objectives to be met in any addition / renovation or rebuild include: the preference for sustaining neighborhood schools, meeting the educational goal for all day kindergarten, minimizing redistricting, and avoiding costly features that are not reimbursable under MSBA guidelines.

The School Administration Central Offices, located at the Emery Grover Building, does not provide for all of the needs of the department, requiring some administrative areas to be located throughout the school system. The outdated existing building lacks accessibility, administrative spaces and meeting rooms are undersized and inefficient, and building systems are in need of replacement. Although the school department currently occupies a centralized location, these administrative offices could be located anywhere in Town as long as the building is easily accessible and parking is adequate.

Public Facilities / Operations, partially located at the Daley Building, is currently configured to respond to the needs of the school department as well as all other public buildings. This building will continue to serve the Town, but will require general maintenance and reorganization on an as needed basis.

### Department of Public Works

The Department of Public Works (DPW) primarily operates out of two sites: 470 Dedham Avenue and the Recycling and Transfer Station (RTS) on Central Avenue. In addition, the DPW also stores significant quantities of vehicles, equipment and cold storage at eleven other sites throughout Town.

The Dedham Avenue site consists of the following: the Hollis Building, which dates from 1960 with an addition in 1965, and has limited second floor use for the storage of Town documents due to air quality and access/code issues; the former Water Pumping Station; cold, caged and bin storage areas; a newly constructed small vehicle storage structure; and the Public Services Administration Building (PSAB). Other Town departments occupy the ground floor of PSAB with DPW administration and engineering personnel occupying the second floor. DPW operations personnel occupy and use the remainder of the site over to the gravel parking area serving DeFazio Park.

The Hollis operations building is undersized for its core purpose: to store and maintain Town vehicles and equipment. Employee facilities are lacking and the building does not meet current Building Code standards. Areas for materials handling and areas for cold storage are insufficient for an operation of this size. The Water Pumping Station, housing one division of the DPW, is not effectively utilized, as old equipment associated with its former use has never been removed. The PSAB is modern, efficient and provides an excellent work environment for the five Town departments co-located there to improve efficiencies between departments, and as a centralized location for visitors.

The Dedham Avenue site, with a high water table, wetlands and a perennial stream/channel, is restrictive and cannot easily be reconstructed to accommodate all of the consolidated needs of the DPW. In addition, plans for a school at this site will compromise and limit traffic circulation patterns, and potentially raise safety concerns as noted on page 33.

The RTS currently houses the community accessed recycling center, a tipping floor used by the Town and outside sources, a materials handling area, and the newly constructed salt/sand shed. Other sites that house significant quantities of vehicle, equipment, and lay down areas for cold storage items include Memorial

Park, the Daley Building, the Ridge Hill garage, Claxton Field building, and the Cricket Field building.

### Police and Fire Department

The Police and Fire Department Headquarters Building, at the intersection of Chestnut and School Streets, was originally built in 1930 with additions in 1989 to accommodate expanded operations for both departments. This very restricted site was significantly improved in 2014 following acquisition of contiguous property to accommodate parking for department owned and personnel vehicles. The building organization does not reflect current police and fire operational needs, and is undersized for vehicles, equipment, personnel and vital records storage. Prisoner processing, which lacks a sallyport, holding area and adequate evidence storage areas, is too small and poorly configured to provide appropriate separation between staff and detainees. Furthermore, the fire apparatus bays are undersized for modern vehicles and equipment. Shared resources are not well located and the building lacks accessibility to both the upper and basement levels of the facility.

Fire Station #2, on the corner of Highland Avenue and Webster Street, requires general upgrades to the building envelope and building systems, is not accessible, and lacks the ability to store additional equipment that may be needed in the future.

### Recreation Resources and Programs

Recreation programs are usually closely associated with a playing field, park, or one of the schools in Town. Existing parks and school grounds are heavily programmed and used by citizens seven days a week. Additional recreation programs are accommodated at Rosemary Pool, DeFazio Park, Claxton Field, Memorial Park, Cricket Field, Avery Field, Dwight Field, Green's Field, Mills Field, Perry Park, Ridge Hill, and Town Forest. Various conservation areas located throughout the Town provide citizens with invaluable access to walking trails and nature.

As new Town projects are developed, recreation needs, which include after-school programs, will be considered that could enable the dual use of land and resources. Existing structures located at sites are in various states of repair and plans for retrofitting and/or replacement will continue to be studied in greater detail in the future.

Updates for the Cricket Field Building are underway and updates for or replacement of the Memorial Park Building is under consideration. Open space uses and new building sites will always be competing for available public lands. Many existing buildings do provide valuable storage space for the DPW including DPW equipment and materials that service these site but also for vehicles and equipment that are not able to be accommodated elsewhere.

DeFazio Park and all the Town lands over to School Street were originally acquired by the Town for use by the DPW. Over the years portions of this land were transferred to the School Committee (10.68 acres) and Park and Recreation Commission (8.09 acres). See jurisdictional plan and 2013 aerial in Volume 2, pages 34 and 35.

A new Community Center and Ice Rink were two projects identified during the Visioning Session and are included in this plan. Public / Private Partnerships may be considered should either of these projects become viable at some point in the next several years.



Photo 7: Emery Grover Building

**PLANNING OPTIONS**

Each identified need for space was quantified by the development of a conceptual building and site plan that was tested on both the existing site and alternative sites identified by the FWG. Existing Town owned land, with potential for development and large enough to accommodate these programs, are limited in Needham.

Each alternative site possibility was evaluated by the FWG to ensure the most efficient and cost-effective development was considered with specific focus on both the positive and negative impacts to the community at large. A matrix was developed that assessed each site using consistent criteria. Though somewhat subjective in nature, end users and professional Town staff, such as the Town Engineer or the Director of the Conservation Department, provided expert opinion on the possibilities and limitations of each site for its intended purposes.

**Primary and Middle Schools**

Currently, the town has completed a Comprehensive Facilities Assessment and Pre-feasibility Study for the Mitchell and Hillside Schools, and is beginning the Feasibility Study process with the Massachusetts School Building Authority (MSBA) for the Hillside Elementary School. In addition, a Comprehensive Facilities Assessment study was completed for the Pollard Middle School to address the needs for science classrooms, an auditorium renovation, administration office improvements, code compliance upgrades, mechanical and electrical system repairs, and deferred maintenance.

All options under consideration and study include school construction at DeFazio Park: a) modular classrooms with a permanent gymnasium b) the construction of a permanent elementary school, or c) the construction of a permanent 6th Grade Center. If the 6th Grade Center is constructed, then High Rock School would be renovated and converted into an elementary school once again. Both permanent school options require extensive redistricting, and would include reusing the Hillside School as swing space for future Town projects.

**High School**

Due to enrollment increases, a study for the addition of classrooms and the expansion of the cafeteria has been proposed for the High School.

**School Administration**

The School Administration currently occupies a building that is not accessible for staff or visitors, has undersized meeting rooms and offices, poor building conditions, as well as unusable space. The Town has studied several options for accommodating the School Administration offices at a renovated Emery Grover building, the Police / Fire Station site, the Nike site, at the PSAB, should the DPW be relocated, or at Hillside School should a choice be made to redistrict and that building became available. One significant program element that needs to be provided, is parking for those attending training sessions. The total parking requirement is approximately 100 vehicles.

**Department of Public Works**

Plans were developed to accommodate the needs of the DPW consolidated on a single major site. Four sites were considered including the current Dedham Avenue site, Parcel 74, located on Greendale Avenue, the RTS, and a site located within the Town Forest near High Rock Street. Plans include a large vehicle storage building, a maintenance facility, shops, administrative spaces, a fuel island, bin storage, and laydown areas for materials and equipment. With consolidation of these activities at one site, the use of scattered sites around town for storage could be reduced to a minimum or eliminated. The consolidation of personnel and equipment at a singular site will also save valuable time, and provide efficient and safer operations. Of the four considered, only the Dedham Avenue site cannot provide sufficient space for full consolidation; the major building components were accommodated, but the site fell short of accommodating cold storage, gantry storage for sander bodies, and a working yard. Additionally, this plan also relied on continued and expanded use of the gravel parking area associated with the DeFazio portion of this site. A phased approach for the development of an alternative site to Dedham Avenue is a potential option for future consideration.

**Recycling and Transfer Station Site and Other DPW Town Sites**

The RTS will remain fully functioning in its current capacity but requires a new employee office facility and more materials handling zones. Plans to improve traffic flow through the site, upgrades to the tipping floor building, and appropriate new employee offices and support spaces, will greatly improve the RTS functions on this site.

Some dedicated vehicles and equipment, primarily used by the DPW and located at parks or fields, may continue to be located at these sites to better serve their needs.

**Police and Fire Headquarters**

The preferred option, to construct a new facility at the present Chestnut and School Streets location, will address all the needs and deficiencies identified during the programming phase. Four options were developed for this site, including an addition / renovation option and new construction. Options explored additional structures such as a School Administrative building and a parking garage. Phased construction will be required to accommodate the needs of first responders. Fire apparatus response time is critical, and the apparatus bays must be constructed to allow the existing apparatus to respond from this site throughout construction. Other fire and police administrative personnel can be accommodated elsewhere on site or at another location in town during construction. Police personnel can work with neighboring towns to accommodate and process prisoners.

**Fire Station #2**

This building houses vehicles, equipment, and personnel who respond to emergencies in this part of Needham including the portion of Town located across Route 128. Though the building needs to have general upgrades to the envelope and building systems, no plans are proposed that would require extended phasing or relocation to accomplish those goals. The included plan does propose the location of a small addition to house additional equipment, should that need arise in the future.



Photo 8: Recycling and Transfer Station



Photo 9: Pollard Middle School - Modular Classrooms



Photo 10: Fire Station #2 - Rear

**Rosemary Pool**

A study outlining the alternative options for protecting and enhancing this community asset was completed in early 2014. Options for development included repair, renovation or full replacement, and considered everything from a return to lake swimming to a four season indoor pool. Two preferred options have been favored by the Park and Recreation Commission. These include a new pool, building renovation and equipment upgrades, an expanded and improved parking lot, accessibility compliance, and subsurface stormwater mitigation with beach and terrace improvements.

**Cricket Field Building**

A study for improvements to this building included work on both the exterior envelope and interior portions of the building. This work included the creation of an accessible route to the building and a code compliant facility, with the potential of winterization to extend the programmed use throughout the year.

**Memorial Park Building**

Proposed work at this site includes a renovation / addition option to upgrade the existing building and to make it accessible. Another option is demolition and the construction of a new facility to house all of the functions that currently exist on site with the possible addition of a teen center. Expanded facilities for this option would include appropriate rooms for home and visiting sports teams and accessible toilets. Office, meeting and storage rooms, of various sizes to accommodate the sports teams who use this multi-sport site, would also be provided.

**Community Center**

Planning for a comprehensive community center was undertaken to include gymnasiums, an indoor pool, exercise rooms, community meeting spaces, and a teen center. Sites considered included Dedham Avenue, the Town Forest and the Nike Site including the possible use of Ridge Hill. A public / private partnership is considered to be a possible strategy to advance this project.

**Ice Rink**

A conceptual plan was developed for a singular indoor rink with seating. The sites considered for this building included Dedham Avenue and the Town Forest. Future development of this site could also be a public / private partnership.

**Ridge Hill**

This property consists of conservation land surrounding a three acre parcel containing the original Ridge Hill Mansion, garage and barn structure. The site is under consideration for redevelopment as a community space. The program is not yet developed. Limitations for this site include its location within conservation land, the challenges of redeveloping the existing buildings, and its remote location in Town. Future development of this site could also be a public / private partnership.

**Nike Site**

This site is currently used as a community farm and a dog park. As the site is considered remote, no other programs were strongly identified for relocation. Though the current programs that have been located here are amenities for the Town, the potential for this site lies in its development as a destination for expanded recreational and community programs. Future development of this site could also be a public / private partnership.



Photo 11: Claxton Field



Photo 12: Cricket Field Building



Photo 13: Rosemary Pool



Photo 14: Ridge Hill Barn



Photo 15: Memorial Field Building - 1st Floor Interior



Photo 16: Memorial Field Building

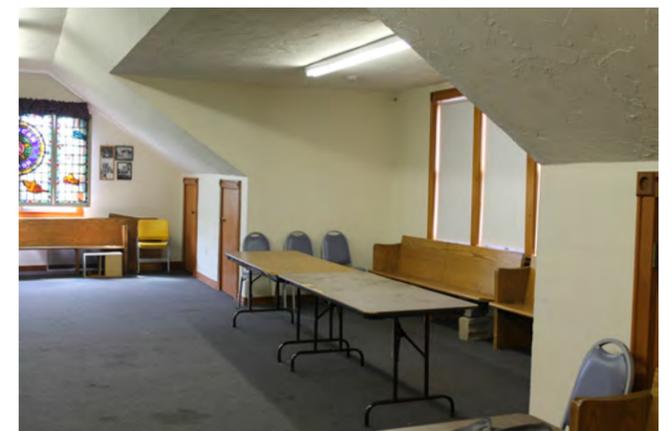


Photo 17: Memorial Field Building - 2nd Floor Interior

IMPLEMENTATION PLAN

IMPLEMENTATION PLAN

The following scenarios focus on specific needs of departments, timelines, expenditures and interconnections between projects. The master plan provides the Town with a broad framework for implementing future projects. The sequence and timing can be adjusted after each project is realized. The Implementation Plans, Scenarios 1, 2, and 3 indicate the projected date of occupancy and the costs to mid-point of construction if the project is designated for completion in the next ten years. The costs are shown in

2014 dollars if a project will be occupied in 2025 or beyond. While these scenarios have built consensus, priorities may change and timelines and costs will need to be adjusted, depending upon the Capital Funding Plan, and Town Board and Town Meeting approval of debt exclusion overrides.

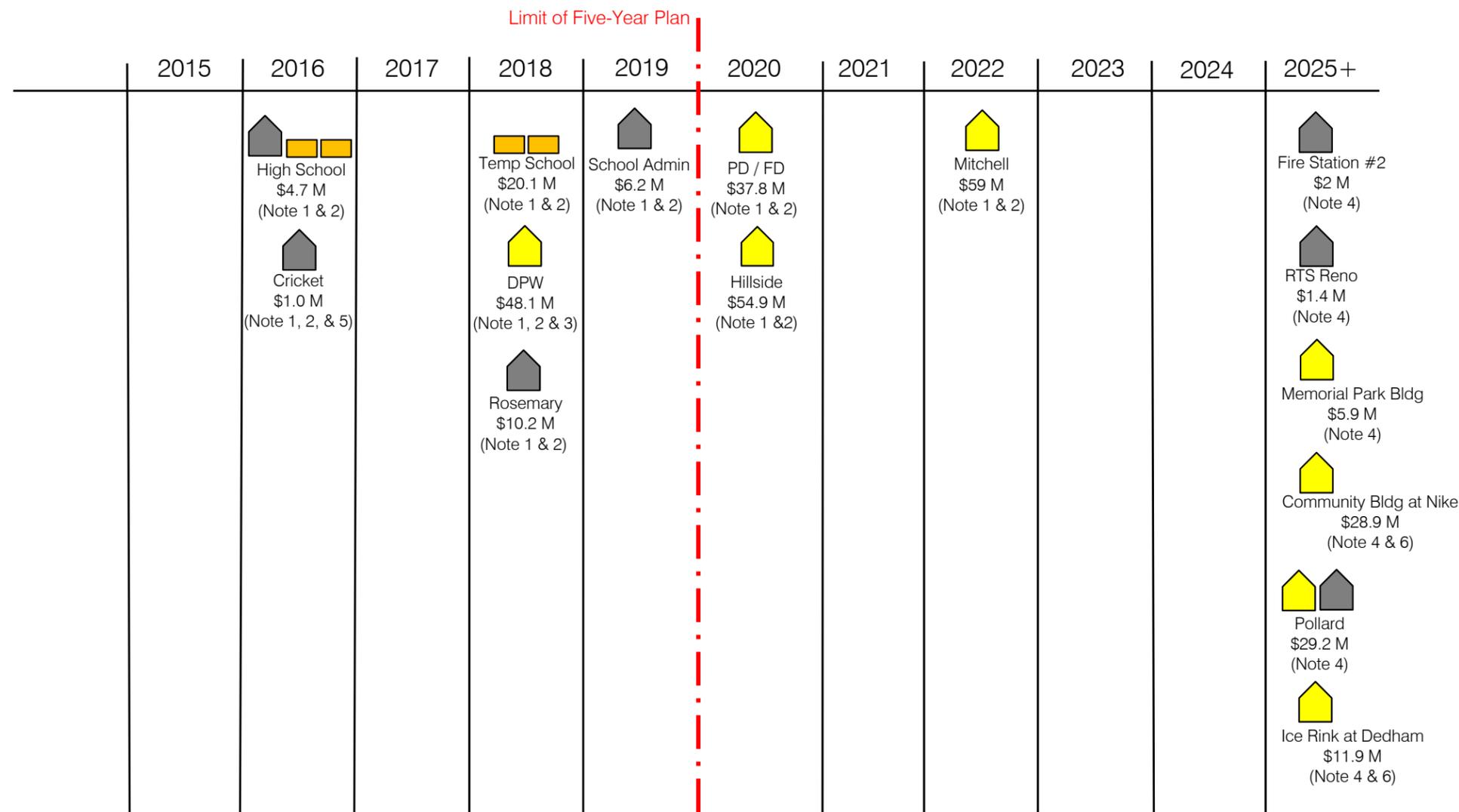
Scenarios 1, 2, and 3 shown on pages 6-11, have been developed in response to the three different options being considered for the rebuild / renovation of the three remaining schools. Scenario 1 includes a temporary school at DeFazio Park that would be occupied during the rebuild of Hillside and Mitchell Schools and the renovation at Pollard Middle School. Scenario 2 includes a permanent elementary or 6th Grade Center at DeFazio Park, returning High Rock to an elementary school, as required, and redistricting. Scenario 3, which has been developed to present a more favorable debt burden undertaken by the Town, is similar but only includes a permanent 6th Grade Center option at DeFazio Park.

SCENARIO 1

This scenario includes a Five-Year Plan limit that shows the first project occupancy beginning in 2016, with funding and design preceding this work and starting in 2015. Projects expecting occupancy beyond the Five-Year Plan limit include projects whose design and funding timeframes will begin during the initial Five-Year Plan limit.

Occupancy in 2016

The Facilities Working Group has recommended the following projects as the top priorities for occupancy in 2016: renovations and addition to accommodate the increased student population at the Needham High School and a minor renovation to Cricket Field Building. Design work and funding for these projects will need to be in place in 2015. Both of these projects are limited in scope and highly achievable. Cricket Field renovations to



Notes

1. Projects are shown at projected occupancy date.
2. Project costs are projected to the midpoint of construction.
3. The DPW project may be realized by a phased implementation approach extending out several years.
4. Project costs are estimated to 2014.
5. To be funded from operating capital 2016 or later.
6. Potential Public / Private Partnership.

Key

- = New Building
- = Renovation
- = Modular Classrooms

FIGURE 1: TIMELINE OF SCENARIO 1 - TEMPORARY SCHOOL AT DEFAZIO PARK

## IMPLEMENTATION PLAN

the exterior envelope, site access, and interior finishes and systems, are included at \$1.0 million dollars. Work at the High School is estimated at \$4.7 million dollars, and will include additional classrooms, cafeteria renovations, and a cafeteria expansion.

### Occupancy in 2018

Design work and funding will be underway starting in 2015 for projects expected to be occupied in 2018. The Facilities Working Group has recommended the following projects as the top priorities for that year: construction of a temporary school at DeFazio Park in preparation for the rebuilding of Hillside School on its existing site, construction of a relocated DPW, and work at Rosemary Pool. These projects are complicated in scope and execution.

A swing space at an alternative location is necessary due to the complexity of building on the existing Hillside site which includes a limited buildable site and wetlands restrictions. The existing school could not remain fully functioning during a rebuilding process, which is also constrained by undersized parking lots and traffic congestion. This modular structure will be used for each successive school project, and may include a permanent gymnasium building designated for recreation purposes once all public projects are complete. Though the cost of this construction is not reimbursable under MSBA guidelines, temporary accommodation is required if Hillside School is to be rebuilt on the current site. Changes to the use of DeFazio Park will include a relocated tot lot and expanded parking. The cost of the temporary school is estimated at \$20.1 million dollars.

The relocation of the DPW is required in order to accommodate a consolidated department, to improve site conditions, and to provide for a better functioning temporary school and DeFazio Park. The Town of Needham has undergone many changes since 1960 and the DPW has evolved to meet those needs. The DPW is considerably larger and more complex than the original department. Limiting site conditions currently require the use of other buildings and their associated land throughout town to store equipment and materials. In addition, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. As stormwater flows over paved as well as vegetated surfaces it picks up debris, chemicals, dirt, and other pollutants, and can flow untreated into a storm sewer system or directly to a water body. The recently constructed pre-engineered vehicle storage structure was built as a stop-gap measure to improve localized site conditions

on Dedham Avenue. A new consolidated DPW at Parcel 74 / Greendale Avenue will provide programmed space for vehicle storage, maintenance, shops, administrative spaces, a fuel island, bin storage and a laydown areas for materials and equipment. This consolidation of personnel and equipment in buildings at a singular site will save valuable time and provide efficient and safer operations. The cost of development for this program is estimated between \$48.1 and \$50 million dollars, depending on the start of construction.

Work at Rosemary Pool is required to be completed in the near future in order for a permit to be renewed by the Department of Environmental Protection (DEP). In 2013, a Rosemary Pool study looked at a variety of options for this site. A refurbishment for the pool and associated building was preferred. Other options considered ranged from permanent closure of the pool to construction of a year-round facility. The cost of this project is estimated at \$10.2 million dollars.

### Occupancy in 2019

Design work and funding will be underway starting in 2015/2016 for projects expected to be occupied in 2019. The Facilities Working Group has recommended the following project as the top priorities for that year: relocation of School Administration to the Public Services Administration Building (PSAB). Relocation of the School Administration to the PSAB on Dedham Avenue is made possible by the relocation of all the departments currently located there who will move with DPW operations to Parcel 74 / Greendale Avenue.

With the relocation of occupants of PSAB and the Water Pump Station, the relocation of School Administration would then be possible. The size of the existing building is comparable to the needs of the school department, and the relatively new building would only undergo light renovations in order to accommodate the school personnel. In addition the Water Pump Station could be renovated to serve as a large training / meeting room for the school department, as well as being made available for off hour use by the community. The work at this site includes demolition of the Hollis Building and increased parking. The cost of this project is estimated at \$6.2 million dollars.

### Occupancy in 2020

Design work and funding will be underway starting in 2015 and 2017 respectively for projects expected to be occupied in 2020. The Facilities Working Group has recommended the following projects as the top priorities for that year:

construction of a new Hillside School and a new Police and Fire Headquarters at the existing site.

The design, funding, and construction cycle for a new Hillside School will take approximately five years. The Town is now starting the Feasibility and Schematic Design phase with the MSBA. The preferred option selected from this process will require override approval in November 2016. The new Hillside School will meet the needs of a contemporary educational program, with all classrooms, core areas, specialty spaces and administrative functions being fully accommodated, as well as parking and outdoor areas to support these programs. Assuming Hillside at its current site is sustainable and the option that includes temporary modular classrooms at DeFazio is selected, then the cost of this project is estimated at \$54.9 million dollars.

The design and funding cycle for a new Police and Fire Headquarters will begin in 2017. Various options were considered with the preferred option, a stand-alone facility located in approximately the same location as the existing structure, being selected. This option provides for phased construction of the fire apparatus bays so that the apparatus equipment remains in a location that best serves the emergency response times for the portion of the town. The new facility will ultimately include appropriately sized rooms to accommodate modern equipment, prisoner processing that protects officers and detainees, evidence storage, shared meeting and training rooms, storage for records and files and administrative and support spaces for staff. The cost of this project is estimated at \$37.8 million dollars.

### Occupancy in 2022

Design work and funding will be underway starting in 2017 for the singular project expected to be occupied in 2022. The Facilities Working Group has recommended the following project as the top priority for that year: construction of a new Mitchell School at its existing site.

The design, funding and construction cycle for a new Mitchell School will take approximately five years and require acceptance by MSBA. The construction of a new school will begin following the occupation of the new Hillside School; the temporary school at DeFazio Park would then be used as swing space for the Mitchell School. The new Mitchell School will also meet the needs of a contemporary educational program with all classrooms, core areas, specialty spaces and administrative functions being fully accommodated as well as parking and outdoor areas to support these programs. The cost of this project is estimated at \$59 million dollars.

### Occupancy in 2025 and beyond or as yet undetermined

Design work and funding cycles for the remaining projects has not yet been determined. All of these projects will be reevaluated in the coming years to determine the need and priority of these proposals. The work includes upgrades at Fire Station #2, renovations / new construction at the RTS, a new or renovated Memorial Park Building and the renovations and additions to the Pollard School. The Community Center at Nike and the Ice Rink at Dedham could be public / private partnerships.



Photo 18: Hollis Building at DPW at Dedham Avenue



Photo 19: Hillside School

IMPLEMENTATION PLAN

SCENARIO 2

This scenario includes a Five-Year Plan limit that shows the first project occupancy beginning in 2016, with funding and design preceding this work and starting in 2015. Projects expecting occupancy beyond the Five-Year Plan limit include projects whose design and funding timeframes will begin during the initial Five-Year Plan limit.

Occupancy in 2016

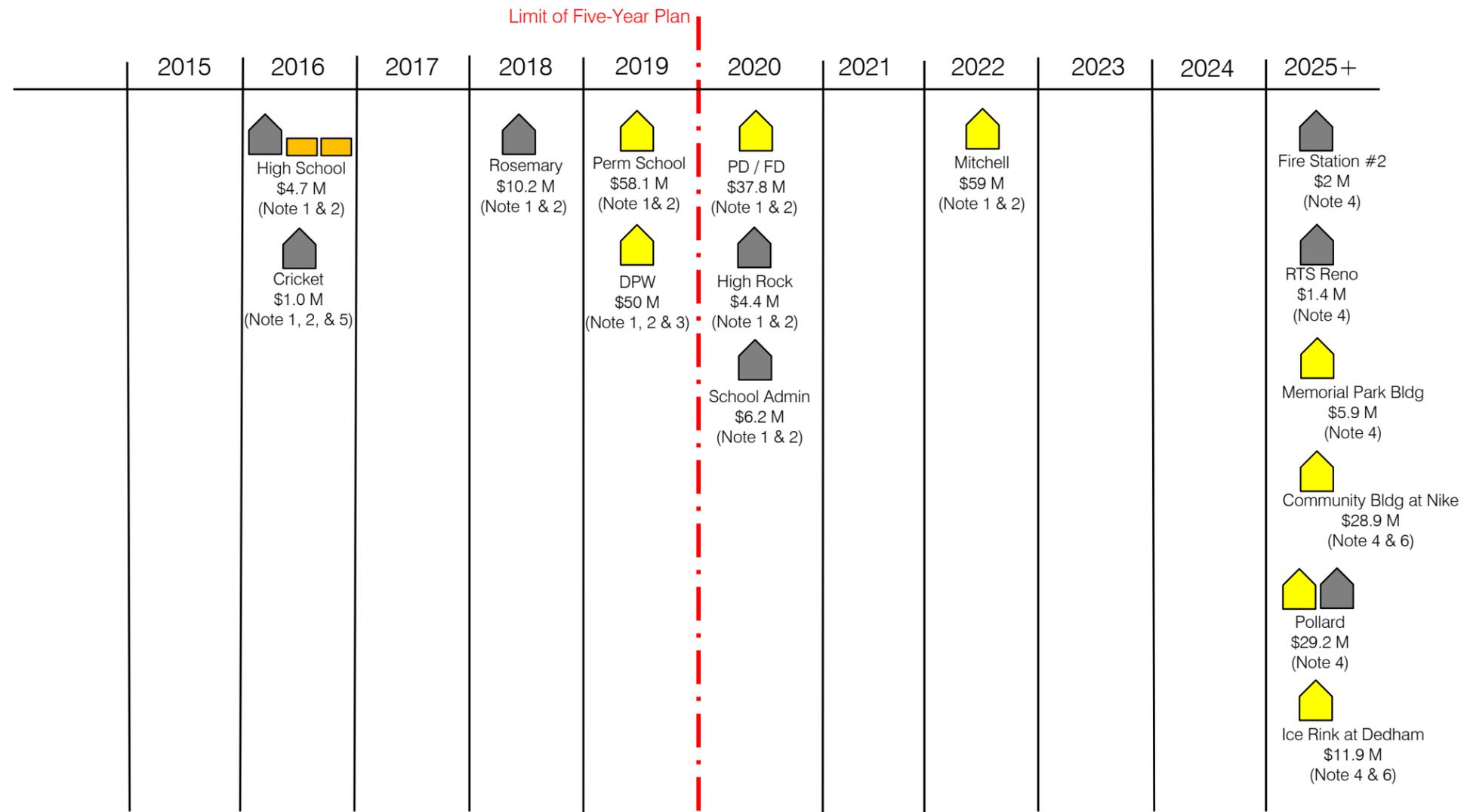
The Facilities Working Group has recommended the following projects as the top priorities for occupancy in 2016: renovations and addition to accommodate the increased student population at the Needham High School and a minor renovation to Cricket Field Building. Design work and funding for these projects will need to be in place in 2015. Both of these projects are limited in scope and highly achievable.

Work at Needham High School is estimated at \$4.7 million dollars, and will include additional classroom space cafeteria renovations, and a cafeteria expansion. Cricket Field Building renovations, to both the exterior envelope site access, interior finishes and systems are included and estimated at \$1.0 million dollars.

Occupancy in 2018

Design work and funding will be underway starting in 2015 for projects expected to be occupied in 2018. The Facilities Working Group has recommended the following project as the top priority for occupancy in the year 2018: work at Rosemary Pool.

Work at Rosemary Pool is required to be completed in the near future in order for a permit to be renewed by the Department of Environmental Protection (DEP). In 2013, a Rosemary Pool study looked at a variety of options for this site. A refurbishment for the pool and associated building was preferred. Other options considered including permanent closure of the pool to a year-round facility. The cost of this project is estimated at \$10.2 million dollars.



Notes

1. Projects are shown at projected occupancy date.
2. Project costs are projected to the midpoint of construction.
3. The DPW project may be realized by a phased implementation approach extending out several years.
4. Project costs are estimated to 2014.
5. To be funded from operating capital 2016 or later.
6. Potential Public / Private Partnership.

**Key**

- = New Building
- = Renovation
- = Modular Classrooms

FIGURE 2: TIMELINE OF SCENARIO 2 - PERMANENT SCHOOL AT DEFazio PARK

## IMPLEMENTATION PLAN

### Occupancy in 2019

Design work and funding will be underway starting in 2015 for projects expected to be occupied in 2019. The Facilities Working Group has recommended the following projects as the top priorities for that year: construction of a permanent school at DeFazio Park for either a 6th Grade Center or an elementary school and construction of a relocated DPW. The Town will work with the MSBA to determine a preferred solution for the school project. As in Scenario 1, these projects are complicated in scope and execution.

A permanent school at DeFazio Park could be built to house a 6th Grade Center, currently located at the High Rock School. A new home for 6th graders will allow for direct synergies with 7th and 8th grade students at the Pollard School. Following the occupancy of this new center, High Rock School will be renovated to provide all the spaces needed for a contemporary elementary school. Redistricting under this scenario would be required. Once High Rock is ready for occupation, Hillside School would be used as swing space for the Mitchell and Pollard Schools rebuild and renovation projects, as well as other Town projects. Once those projects are complete the Hillside School will cease to function and will be re-purposed or demolished to make way for some sort of community use. The cost of the permanent school is estimated at \$58.1 million dollars.

A Scenario 2-A could include a new elementary school at DeFazio and redistricting of grades K-5. This would eliminate the need for renovations to the High Rock School. Both options will be explored during the Hillside Feasibility Study with MSBA.

The relocation of the DPW is required in order to accommodate a consolidated department, to improve site conditions, and to reduce or eliminate conflicts with a temporary school and DeFazio Park. The DPW is considerably larger and more complex than the original department that occupied this site in the 1960's. Limiting site conditions currently require the use of other buildings and their associated land throughout town to store equipment and materials. In addition, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. As stormwater flows over paved as well as vegetated surfaces it picks up debris, chemicals, dirt, and other pollutants, and can flow untreated into

a storm sewer system or directly to a water body. The recently constructed pre-engineered vehicle storage structure was constructed as a stop-gap measure to improve localized site conditions on Dedham Avenue. A new consolidated DPW at Parcel 74 / Greendale Avenue will provide programmed space for vehicle storage, a maintenance facility, shops, administrative spaces, a fuel island, bin storage and laydown areas for materials and equipment. This consolidation of personnel and equipment in buildings at a singular site will save valuable time and provide efficient and safer operations. The cost of development for this program is estimated between \$48.1 and \$50 million dollars, depending on the start of construction.

### Occupancy in 2020

Design work and funding will be underway starting in 2015/2016 for projects expected to be occupied in 2020. The Facilities Working Group has recommended the following projects as the top priorities for that year: renovation at High Rock School, a new Police and Fire Headquarters at its existing site and relocation of School Administration to the Public Services Administration Building (PSAB). Relocation of the School Administration to the PSAB on Dedham Avenue is made possible by the relocation of all the departments currently located there who will move with DPW operations to Parcel 74 / Greendale Avenue.

The design and funding for the conversion of High Rock School back to an elementary school would begin in 2018. This work would primarily include new classroom space. The cost of this project is estimated at \$4.4 million dollars.

The design and funding cycle for a new Police and Fire Headquarters will begin in 2017. Various options were considered with the preferred option, a stand-alone facility located in approximately the same location as the existing structure, being selected. This option provides for the logically phased construction of the fire apparatus bays so that the apparatus equipment remains in a location that best serves the emergency response times for the portion of the town. The new facility will ultimately include appropriately sized rooms to accommodate modern equipment, prisoner processing that protects officers and detainees, evidence storage, shared meeting and training rooms, storage for records and files and administrative and support spaces for staff. The cost of this project is estimated at \$37.8 million dollars.

With the relocation of occupants of PSAB and the Water Pump Station, the relocation of School Administration would then be possible. The size of the existing building is comparable to the needs of the school department; and the relatively new building would only undergo light renovations in order to accommodate the school personnel. In addition the Water Pump Station could be renovated to serve as a large training / meeting room for the school department, as well as being made available for off hour use by the community. The work at this site includes demolition of the Hollis Building and increased parking. The cost of this project is estimated at \$6.2 million dollars.

### Occupancy in 2022

Design work and funding will be underway starting in 2017 for the singular project expected to be occupied in 2022. The Facilities Working Group has recommended the following project as the top priority for that year: construction of a new Mitchell School at its existing site.

The design, funding and construction cycle for a new Mitchell School will take approximately five years. The construction of a new school will begin following the occupation of the renovated elementary school at High Rock, which will accommodate the students currently located at Hillside School. In this option the Hillside School would be used as the temporary facility for the Mitchell School during construction. Some redistricting would be required because Hillside School is smaller than Mitchell School by approximately thirty students. The new Mitchell School will also meet the needs of a contemporary educational program with all classrooms, core areas, specialty spaces and administrative functions being fully accommodated as well as parking and outdoor areas to support these programs. The cost of this project is estimated at \$59 million dollars.

### Occupancy in 2025 and beyond or as yet undetermined

Design work and funding cycles for the remaining projects has not yet been determined. All of these projects will be reevaluated in the coming years to determine the need and priority of these proposals. The work includes upgrades at Fire Station #2, renovations / new construction at the RTS, a new or renovated Memorial Park Building and the renovations and additions to the Pollard School. The Community Center at Nike and the Ice Rink at Dedham could be public / private partnerships.



Photo 20: DPW at Dedham - Cold Storage



Photo 21: Town Forest

**SCENARIO 3**

This scenario was developed to align with a financing plan (see Volume 3, Appendix 5) developed to lessen the debt service undertaken by the Town, but which still requires Board acceptance, and includes a Five-Year Plan limit that shows the first project occupancy beginning in 2016, with funding and design preceding this work and starting in 2015. Projects expecting occupancy beyond the Five-Year Plan limit include projects whose design and funding timeframes will likely begin during the initial Five-Year Plan limit.

**Occupancy in 2016**

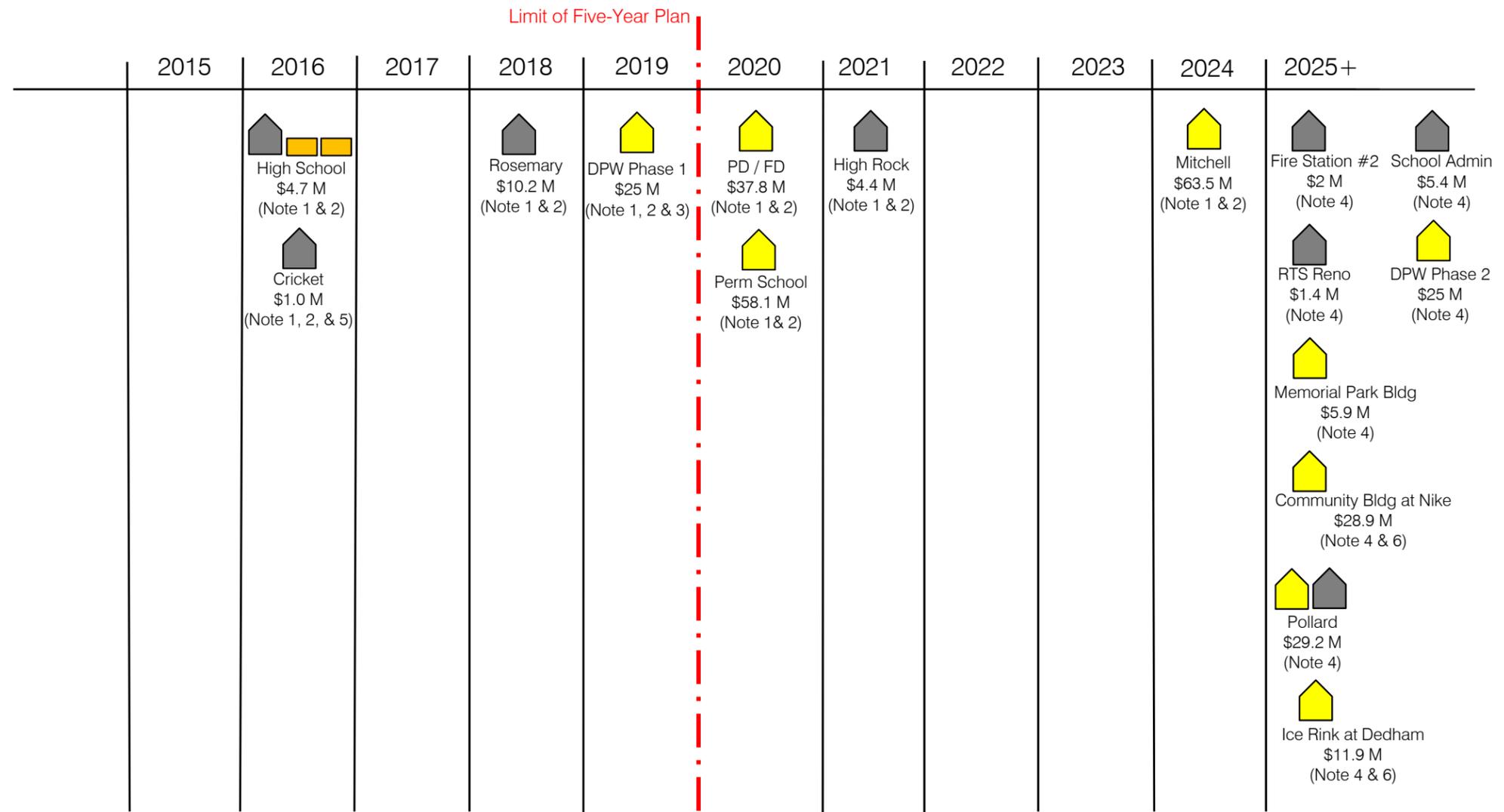
Scenario 3 anticipates the following projects as the top priorities for occupancy in 2016: renovations and addition to accommodate the increased student population at the Needham High School and a minor renovation to Cricket Field Building. Design work and funding for these projects will need to be in place in 2015. Both of these projects are limited in scope and highly achievable.

Work at Needham High School is estimated at \$4.7 million dollars, and will include additional classroom space cafeteria renovations, and a cafeteria expansion. Cricket Field Building renovations, to both the exterior envelope, site access, interior finishes and systems are included and estimated at \$1.0 million dollars.

**Occupancy in 2018**

Design work and funding will be underway starting in 2015 for projects expected to be occupied in 2018. The Facilities Working Group has recommended the following project as the top priority for occupancy in the year 2018: work at Rosemary Pool.

Work at Rosemary Pool is required to be completed in the near future in order for a permit to be renewed by the Department of Environmental Protection (DEP). In 2013, a Rosemary Pool study looked at a variety of options for this site. A refurbishment for the pool and associated building was preferred. Other options considered ranged from permanent closure of the pool to the construction of a year-round facility. The cost of this project is estimated at \$10.2 million dollars.



Notes

1. Projects are shown at projected occupancy date.
2. Project costs are projected to the midpoint of construction.
3. The DPW project may be realized by a phased implementation approach extending out several years.
4. Project costs are estimated to 2014.
5. To be funded from operating capital 2016 or later.
6. Potential Public / Private Partnership.

**Key**

- = New Building
- = Renovation
- = Modular Classrooms

FIGURE 3: TIMELINE OF SCENARIO 3 - PERMANENT SCHOOL AT DEFazio PARK

**Occupancy in 2019**

Design work will be underway in 2015 for the feasibility studies and schematic design in anticipation of a new permanent school project expected to be constructed in the existing gravel parking lot area at DeFazio Park. Relocation of the DPW (including part or all of its operations) is required in order to accommodate a new school at DeFazio Park.

In anticipation of this work, the relocation of the DPW would enable the consolidation of the department, and improve site conditions at Dedham Ave. The DPW is considerably larger and more complex than the original department that occupied this site in the 1960's. Limiting site conditions currently require the use of other buildings and their associated land throughout town to store equipment and materials. In addition, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. As stormwater flows over paved as well as vegetated surfaces it picks up debris, chemicals, dirt, and other pollutants, and can flow untreated into a storm sewer system or directly to a water body. The fuel facility is reaching the end of its useful life and its current location is difficult to access by the larger town trucks. The recently added pre-engineered vehicle storage structure was constructed as a stop-gap measure to improve localized site conditions on Dedham Avenue. A new consolidated DPW at Parcel 74 / Greendale Avenue will provide programmed space for vehicle storage, a maintenance facility, shops, administrative spaces, a fuel island, bin storage and laydown areas for materials and equipment. This consolidation of personnel and equipment in buildings at a singular site will save valuable time and provide efficient and safer operations. The cost of development for this program is estimated between \$48.1 and \$50 million dollars, depending on the start of construction. However, Scenario 3 anticipates that the DPW project will be phased, and only Phase 1 of the project, at a cost of \$25 million dollars, will be completed at this time, with a second phase occurring at a later date.

**Occupancy in 2020**

Design work and funding will be underway starting in 2015 / 2016 for projects expected to be occupied in 2020. Scenario 3 anticipates the following projects as the top priorities for that year: a new permanent school at DeFazio Park as a 6th Grade Center, and a new Police

and Fire Headquarters at its existing site.

The Town is starting the Feasibility Study and Schematic Design phase for the Hillside School with the MSBA in 2015 to study the alternatives and select a preferred solution. Scenario 3 assumes the construction of a new permanent school at DeFazio Park as a 6th Grade Center, which is one of the options in the MSBA study. Once the new school is occupied renovations and additions to the High Rock School would follow to convert it back into an elementary school. Under this scenario redistricting would be required. Once the new school is occupied, construction on the existing High Rock School could begin to convert that building back into an elementary School. The cost of the Permanent School at DeFazio is projected to be \$58.1 million dollars.

The design and funding cycle for a new Police and Fire Headquarters will begin in 2017. Various options were considered with the preferred option, a stand-alone facility located in approximately the same location as the existing structure, being selected. This option provides for the logically phased construction of the fire apparatus bays so that the apparatus equipment remains in a location that best serves the emergency response times for the portion of the town. The new facility will ultimately include appropriately sized rooms to accommodate modern equipment, prisoner processing that protects officers and detainees, evidence storage, shared meeting and training rooms, storage for records and files and administrative and support spaces for staff. The cost of this project is estimated at \$37.8 million dollars.

**Occupancy in 2021**

Design work and funding will be underway starting in 2017 for the renovation and additions to the High Rock School to convert it into an Elementary School. Redistricting would then accommodate the Hillside students so that the Hillside School building could be used as swing space for the future Mitchell School and Pollard School renovation / reconstruction / addition projects.

This work would primarily include new classroom space. The cost of this project is estimated at \$4.4 million dollars.

**Occupancy in 2024**

Design work and funding will be underway starting in 2020 for the singular project expected to be occupied in 2024. Scenario 3 anticipates the following project:

construction of a new Mitchell School at its existing site.

The design, funding and construction cycle for a new Mitchell School will take approximately four to five years. Design and construction of a new school will begin concurrent with the occupation of the new elementary school at High Rock, which with redistricting will accommodate the students currently located at Hillside School. In this option the Hillside School would be used as the temporary facility for the Mitchell School during construction. The redistricting would need to account for the fact that the Hillside School is smaller than Mitchell School by approximately thirty students. The new Mitchell School will also meet the needs of a contemporary educational program with all classrooms, core areas, specialty spaces and administrative functions being fully accommodated as well as parking and outdoor areas to support these programs. The cost of this project is estimated at \$63.5 million dollars assuming midpoint of construction in 2023.

**Occupancy in 2025 and beyond or as yet undetermined**

Design work and funding cycles for the remaining projects has not yet been determined. All of these projects will be reevaluated in the coming years to determine the need and priority of these proposals. The work includes 1) upgrades at DPW Phase 2, 2) relocation of School Administration to the Public Services Administration Building (PSAB). (Made possible by the relocation of all the departments currently located there who could move with DPW operations to Parcel 74 / Greendale Avenue), 3) Fire Station #2, 4) renovations / new construction at the RTS, 5) a new or renovated Memorial Park Building and 6) the renovations and additions to the Pollard School. The Community Building at Nike and an Ice Rink at Dedham Ave are assumed to be public/ private partnerships.

**IMPLEMENTING THE MASTER PLAN**

The community, represented by all members of the Facility Working Group, has recommended three alternative pathways to meet the identified Town facility needs. The end goals are clear, and this Facility Master Plan provides a broad framework that will accommodate adjustments as new issues, budget constraints or economic conditions arise in the future.



Photo 22: Memorial Park Building



Photo 23: Public Services Administration Building

## INTRODUCTION TO NEEDS ASSESSMENT / PLANNING / PROGRAMMING

The scope of this study includes the evaluation of programmatic requirements for the following Town departments:

- Department of Public Works
- Fire and Police Departments
- Community Building
- Memorial Park Building

The scope also included programming information completed during the programming portion of an independent study by others:

- Hillside, Mitchell and Pollard Schools
- Needham High School
- School Administration
- Rosemary Pool
- Cricket Field

The approach was to analyze and document current and future building and site space needs, including access by the public, and relationships or synergies with other departments on or near the site. This section includes the following:

- Overview of programs requiring assessment
- Program Summary
- Overview of programs by Others
- Program Summary

## METHODOLOGY

Programmatic requirements were developed based on data from several sources:

- **Previous Studies:** Programmatic requirements developed in the 2006 Town wide Comprehensive Facilities Study were reviewed (See Inventory of Previous Studies, Volume 3 - Appendix).
- **Existing Drawings:** Available drawings of existing facilities for town departments were reviewed to

document existing space use. Department personnel provided additional information on areas of storage located off site from their primary location. Existing floor plans, if available, are included in Volume 2.

- **Direct Observation:** Existing spaces were observed during site visits for both the adequacy of space available and how that space was configured to meet operational needs. Site visits for several buildings focused on code and structural issues related to potential reuse.
- **User Interviews:** Interviews with appropriate town staff were undertaken during the spring of 2014. These meetings included a walk-through of sites and meeting sessions where program needs were discussed and options reviewed. Programming Questionnaires are included in Volume 3.
- **Equipment Inventory:** Storage requirements for Fire, Police and DPW vehicles and large equipment are based upon Vehicles and Equipment Inventory provided by departments. (See Volume 2).
- **Summary of Functional Requirements:** Functional requirements for each department have been documented in department overviews.
- **Organizational Charts:** Department Organization charts have been prepared by Town staff showing existing staff and potential future staff.
- **Program Net Square Footage (NSF):** The NSF for each department has been tabulated based upon current needs with consideration of future expansion. NSF is defined as space assigned to do an activity.
- **Building Gross Square Footage (GSF):** The GSF requirements includes the NSF plus factors for circulation and interior and exterior wall construction. GSF numbers are generally conservative by design, and more so during a master plan phase. It should be a goal, during the study leading to the design phase, to review programming and attempt to reduce the GSF in the range of 5-10%. Also note that final GSF for a building is dependent on the scheme selected and actual site conditions.

## ELEMENTARY, MIDDLE AND HIGH SCHOOLS

Needham has five elementary schools, two middle

schools and one high school with enrollment totaling 5,465 students for the 2014 - 2015 school year. Planning for appropriate school space for Needham's students is a priority for Town of Needham and the construction initiatives being considered continue to seek equitable facilities across the school system. The Needham community has supported renovations and new school construction projects at Newman, Broadmeadow and John Eliot Elementary Schools, the 6th grade center at High Rock Elementary School, Pollard Middle School and Needham High School. Significant renovation and / or replacement of the Hillside and Mitchell elementary schools and expansion at the Pollard Middle School and the Needham High School are now in the planning stages.

The Permanent Public Building Committee (PPBC) and the School Committee hired the architectural firm Dore and Whittier to study and analyze the options for renovating and / or replacing Hillside and Mitchell including the submission to the Massachusetts School Building Authority (MSBA) for further study and possible state funding of a renovation project for both schools. The Pollard Middle School was studied separately.

The School Committee established several conditions to consider in their planning. Among them:

- Elementary schools sized between 400 and 500 as optimum
- Neighborhood based schools which reduce transportation costs and build a sense of community and ownership
- Full day Kindergarten option as an educational goal
- Minimize redistricting
- Avoidance of costly and un-reimbursable features like temporary classrooms to house students while construction is underway

## **Elementary Schools**

Two major construction initiatives underway involve the oldest and most crowded elementary schools: Hillside and Mitchell Schools. In order to meet both building, energy and accessibility codes and the educational goals of the School Department substantial construction work will need to be undertaken at these schools.



Photo 24: Mitchell School



Photo 25: Pollard Middle School - Interior



Photo 26: Pollard Middle School - Modular Classrooms

The Comprehensive Facilities Assessment provided an independent architectural, engineering and code evaluation that identified and prioritized a capital maintenance plan as well as documented the extent of renovations and improvements needed to determine the future viability of the existing buildings / site. The assessment documents provide the following for each school:

- Documentation of existing conditions and a physical assessment of each building and site with recommendations to address deficiencies
- A Capital Improvements Plan that summarizes the recommendations and prioritizes them into near term and long term categories
- Recommendations for energy efficient measures gained by upgrading or replacement of equipment, systems, or building components that can reduce energy related operating costs or even reduce carbon footprint
- A review of potential future uses in relationship to building systems and equipment, safety of occupants, changes in educational programs, space use and technology in education

Both of the schools are well maintained but neither has had a significant renovation or permanent addition in over 40 years, other than the addition of modular classrooms. Each building has equipment and building components that have reached the end of their useful life and are due for replacement. Codes have changed significantly and have increased requirements to provide safe, healthy and accessible school environments. Energy codes, developed and enhanced in the past decade, require increased insulation in building envelopes, higher efficiency mechanical and electrical equipment, plumbing fixtures and building systems components.

The Hillside School, nestled into a hillside and with significant wetlands, has limited expansion capabilities. Additional issues facing construction at this site include the high water table, limited vehicular access and the designation of this site per the DEP for environmental monitoring and remediation from a 1980's off-site chemical spill. All of these mitigating factors are under consideration when determining the future viability and / or constraints of the Hillside site.

The Mitchell School, located on a relatively flat site, has

greater potential for possible future construction. Due to increased enrollment needs, four pre-fab classrooms were constructed and opened for the September 2014 school year. These new classrooms meet the expectations for appropriate classroom space and temporarily help mitigate the overcrowding issue.

On November 20, 2013 the Massachusetts School Building Authority (MSBA) voted to invite the Hillside Elementary School into the MSBA Eligibility Period. On July 30, 2014 the MSBA voted to collaborate with Needham in conducting a Feasibility Study. The MSBA partners with communities to support the design and construction of educationally appropriate flexible, sustainable and cost effective facilities. Any state aid that the Town receives will come through the MSBA reimbursement.

**Pollard Middle School**

The Comprehensive Facilities Assessment for this school was completed separately due to the focus of the study. This 7th and 8th grade middle school will remain in its current use through the next decade and repairs or improvements are viewed as long term investments. The assessment provided an independent architectural, engineering and code evaluation that identified and prioritized a capital improvements as well as providing space use recommendations regarding science classrooms, the auditorium and the administrative offices. The assessment documents provide the following for this school:

- Documentation of existing conditions and a physical assessment of this building and site with recommendations to address deficiencies
- A Capital Improvements Plan that summarizes the recommendations and prioritizes them into near term and long term categories
- Recommendations for energy efficient measures gained by upgrading or replacement of equipment, systems, or building components that can reduce energy related operating costs or even reduce carbon footprint
- A review of space deficiencies of the science and administrative areas and possible concepts for improvements

- A review of potential future uses in relationship to building systems and equipment, safety of occupants, changes in educational programs, space use and technology in education. Long term building renovations recommendations support the integration of sustainable design components.

Pollard Middle School was built in 1956, with major additions in 1962 and 1992. The school was further expanded in 2002 with the addition of ten portable classrooms. The building is well maintained and the Town Facilities Department has an on-going list of improvements that are in progress. The results of the study documented a number of health, life safety and welfare improvements that are recommended to meet current codes and continued use of this facility. Short term repairs are important and the study recommended looking out 40-50 years as renovations and improvements are considered. Notable issues include:

- Science classrooms to meet current standards including prep rooms and storage
- Location of administrative offices to improve visibility and to provide appropriate workspace
- Auditorium upgrades to enhance this community space
- General improvements to gymnasiums
- Replacement of modular classrooms with permanent facilities
- Consideration of "21st Century Learning" as it relates to middle school learning-teaching methods
- Code related upgrades

**Needham High School**

Needham High School was designed to accommodate 1,450 students with the ability to accommodate 1,600 students for short peak durations. With the student body now expecting to exceed 1,750 students, the school is running out of classroom space. Planning is underway to construct permanent pre-fabricated / modular classrooms with an expanded cafeteria.



Photo 27: Hillside School

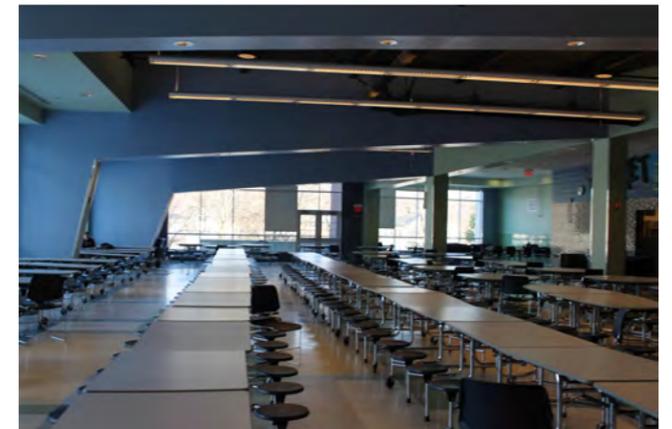


Photo 28: Needham High School - Cafeteria



Photo 29: Emery Grover Building

**SCHOOL ADMINISTRATION**

School Administration departments are primarily located in the historic Emery Grover Building with some additional spaces dispersed in other locations due to lack of space. This building is not accessible for staff or visitors, does not have enough office and meeting rooms, is in poor overall condition and includes unusable space such as the attic. A study completed in 2010 by Bargmann Hendrie + Archetype Inc., when the building was being considered for use as a senior center, includes an extensive conditions assessment with recommendations for repair and restoration. Code requirements would dictate a new elevator and a rebuild of egress stairs. The impact of this work, along with new building systems and reconfiguration to address school department needs, suggest a gut renovation of this building should the decision be made to remain at this site.

A study completed in 2013 by designLAB Architects detailed the programmatic needs for the School Department and provided scenarios for renovation of Emery Grover and test fits of the program at Ridge Hill or on another Town owned parcel.

School Administration Department spaces include:

- Shared Building Service
- Superintendent of Schools
- Student Development
  - Student Development
  - Community Education
- Innovation Technology
- Finance Operations
  - Human Resources
  - Business / Finance Operations
  - Transportation / Food Service
- Program Development

| Space  | Size proposed SF | Total GSF Subtotals |
|--|------------------|---------------------|
| <b>School Administration</b>   |                  |                     |
| <b>SHARED BUILDING SERVICES</b>  |                  |                     |
| Entry Vestibule - Lobby  | 240              |                     |
| Help Desk/Reception  | 100              |                     |
| Conference Rooms   | 1800             |                     |
| Offices  | 400              |                     |
| Support Spaces   | 1690             |                     |
| Storage  | 1000             |                     |
| <b>SUBTOTAL</b>  |                  | 5,230               |
| Gross area adjustment 13%  |                  | 680                 |
| Circulation adjustment at 15%  |                  | 886                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>6,796</b>        |
| <b>SUPERINTENDENT SUITE</b>  |                  |                     |
| Superintendent of Schools  | 905              |                     |
| <b>SUBTOTAL</b>  |                  | 905                 |
| Gross area adjustment 13%  |                  | 118                 |
| Circulation adjustment at 15%  |                  | 153                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>1,176</b>        |
| <b>STUDENT DEVELOPMENT DEPARTMENT</b>  |                  |                     |
| Student Development  | 975              |                     |
| Community Education  | 1015             |                     |
| <b>SUBTOTAL</b>  |                  | 1,990               |
| Gross area adjustment 13%  |                  | 259                 |
| Circulation adjustment at 15%  |                  | 337                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>2,586</b>        |
| <b>FINANCE OPERATIONS DEPARTMENT</b>   |                  |                     |
| Human Resources  | 1075             |                     |
| Business / Finance Operations  | 1240             |                     |
| Transportation / Food Services   | 1135             |                     |
| <b>SUBTOTAL</b>  |                  | 3,450               |
| Gross area adjustment 13%  |                  | 449                 |
| Circulation adjustment at 15%  |                  | 585                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>4,483</b>        |
| <b>PROGRAM DEVELOPMENT DEPT.</b>   |                  |                     |
| Program Development  | 1020             |                     |
| <b>SUBTOTAL</b>  |                  | 1,020               |
| Gross area adjustment 13%  |                  | 133                 |
| Circulation adjustment at 15%  |                  | 173                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>1,325</b>        |
| <b>INNOVATIVE TECHNOLOGY</b>   |                  |                     |
| Tech Staff and Server Room   | 440              |                     |
| <b>SUBTOTAL</b>  |                  | 440                 |
| Gross area adjustment 13%  |                  | 57                  |
| Circulation adjustment at 15%  |                  | 75                  |
| <b>SUBTOTAL GSF</b>  |                  | <b>572</b>          |
| <b>GRAND TOTAL BUILDING W/O BUILDING SUPPORT</b>   |                  | <b>16,939</b>       |
| <b>BUILDING SUPPORT: Mechanical, Electrical, Plumbing, Fire Protection, Elevator, Stairs (Assume 11% of GSF)</b> |                  |                     |
| <b>SUBTOTAL GSF</b>  |                  | <b>1,863</b>        |
| <b>GRAND TOTAL BUILDING</b>  |                  | <b>18,802</b>       |

FIGURE 4: SCHOOL ADMINISTRATION PROGRAMMING



Photo 30: Emery Grover Building



Photo 31: Emery Grover Building - Interior



Photo 32: Emery Grover Building - Interior

**DEPARTMENT OF PUBLIC WORKS (DPW)**

The Public Works Department plans, designs, constructs, operates, maintains, and manages all physical public infrastructure necessary for Needham community life. The Department of Public Works provides the following services:

- Highway maintenance and construction
- Traffic control
- Snow removal
- Safe & secure water supply and distribution
- Protection against flooding / storm sewer construction and maintenance
- Solid waste disposal
- Park and forestry maintenance
- Sanitary sewer construction and maintenance
- Maintenance of accessible athletic and recreational facilities

The DPW includes the following departments:

- Administrative Services
- Engineering Division
- Garage and Equipment Division
- Highway Division
- Parks & Forestry Division
- Recycling & Transfer Station (RTS)
- Water, Sewer and Drain Division

Most of the DPW staff are located at the DPW complex on Dedham Avenue with the exception of the following: Sewer Pump Station operators (located at the West Street pumping station), Water Treatment Facility Manager and Operators (located at the Charles River Treatment Facility) and the RTS (located at the RTS facility on Central Avenue).

The main site, at Dedham Avenue, consist of four major buildings: the Hollis Building, the Public Services Administration Building (PSAB), the old Water Pumping Station and a new pre-engineered vehicle storage building. In addition the site includes a fuel depot, cold

storage for equipment and parts, and bins for storage of materials used on roads and parks. At ten other sites, located throughout Town, the DPW also stores seasonal vehicles and other equipment and materials used to construct and maintain the infrastructure for the Town.

The RTS site continues to be used as a recycling and solid waste transfer station and in 2014 a new sand / salt structure was constructed.

At Dedham Avenue, the PSAB building houses the administrative, engineering and operations offices for the department in modern and appropriate space. This building satisfies the programmatic need of the department and provides exceptional synergies with interrelated Town departments. However, at the Hollis and old Water Pumping Station operations buildings, employee facilities are lacking, the buildings are not accessible, stairs and egress pathways do not meet code, buildings systems are neither current nor efficient, and there is no fire suppression system or seismic restraints in the structures.

From an operations viewpoint, the Hollis Building lacks maintenance bays and shop space that would improve workflow and vehicle storage space to house valuable trucks and towed equipment. Additionally, the site does not support all of the related areas that are part of a public works facility including a materials handling zone, cold storage for sander bodies and spreaders, pipes and manhole covers, a modern fuel depot and a working yard. Currently these functions are spread throughout Town. Finally, the Dedham Avenue site is complicated by DEP regulations which require attention.

Programming for this department included the following indoor spaces:

- Administration: Shared spaces including lunchroom and training
- Administration offices and meeting rooms
- Operations offices and work areas
- Engineering offices and vault

- Employee support spaces including locker rooms, toilets and lunchroom
- Garage / Maintenance
- Shops
- Wash Bay
- Vehicle Storage and Prep
- Building support

Site elements included:

- Parking for both staff and visitors
- Fuel depot
- Cold storage
- Covered parking for equipment
- Bin storage
- Sander and spreader storage
- Dumpster and Recycling

The preferred programming approach consolidated all of the activities currently at Dedham Avenue as well as other space located throughout Town. This approach would provide better oversight of employees and activities, and vehicles, equipment and materials would be easily accessed and under cover. The RTS site and several small garage spaces that house equipment dedicated to a park or playfield would remain as currently located but in a reduced capacity. One consideration is the possible relocation, if required, of the other interrelated departments currently co-located at the PSAB building. A second option was detailed that included those departments.



Photo 33: DPW at Dedham Avenue - Gantry



Photo 34: DPW at Dedham Avenue - Fuel Island



Photo 35: Old Water Pumping Station at Dedham Ave.

| Space  | Size proposed SF | Total GSF Subtotals | Total GSF per division |
|--|------------------|---------------------|------------------------|
| <b>Department of Public Works</b>  |                  |                     |                        |
| Entry Vestibule - Lobby  | 240              |                     |                        |
| Lunchroom  | 425              |                     |                        |
| Office suport/supplies and staff toilets                                 | 1150             |                     |                        |
| Training/DPW Storm Command: Dispatch, Office,Conference Room and Storage | 1490             |                     |                        |
| <b>SUBTOTAL</b>  |                  | 3,305               |                        |
| Gross area adjustment 15%  |                  | 496                 |                        |
| Circulation adjustment at 25%  |                  | 950                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>4,751</b>        |                        |
| <b>SHARED SUBTOTAL GSF</b>   |                  |                     | <b>4,751</b>           |
| <b>Administration</b>  |                  |                     |                        |
| Offices  | 1452             |                     |                        |
| Conference   | 216              |                     |                        |
| <b>SUBTOTAL</b>  |                  | 1,668               |                        |
| Gross area adjustment 15%  |                  | 250                 |                        |
| Circulation adjustment at 25%  |                  | 480                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>2,398</b>        |                        |
| <b>Administration - Operations</b>                                       |                  |                     |                        |
| Offices for Superintendents  | 732              |                     |                        |
| Work Areas for 11  | 560              |                     |                        |
| Active Records Storage   | 150              |                     |                        |
| <b>SUBTOTAL</b>  |                  | 1,442               |                        |
| Gross area adjustment 15%  |                  | 216                 |                        |
| Circulation adjustment at 25%  |                  | 415                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>2,073</b>        |                        |
| <b>Administration - Engineering</b>                                      |                  |                     |                        |
| Engineering offices  | 1890             |                     |                        |
| Service desk; copy equipment; files                                      | 440              |                     |                        |
| Vault Storage  | 850              |                     |                        |
| <b>SUBTOTAL</b>  |                  | 3,180               |                        |
| Gross area adjustment 15%  |                  | 477                 |                        |
| Circulation adjustment at 25%  |                  | 914                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>4,571</b>        |                        |
| <b>ADMINISTRATION SUBTOTAL</b>   |                  |                     | <b>9,042</b>           |
| <b>Operations - Employee Support</b>                                     |                  |                     |                        |
| Locker/Shower/Toilet Room  | 1896             |                     |                        |
| Lunchroom with Kitchen   | 756              |                     |                        |
| <b>SUBTOTAL</b>  |                  | 2,652               |                        |
| Gross area adjustment 15%  |                  | 398                 |                        |
| Circulation adjustment at 25%  |                  | 762                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>3,812</b>        |                        |
| <b>Operations - Garage/Maintenance</b>                                   |                  |                     |                        |
| Garage Maintenance Bays  | 8888             |                     |                        |
| Maintenance Workshop   | 1850             |                     |                        |
| <b>SUBTOTAL</b>  |                  | 10,738              |                        |
| Gross area adjustment 15%  |                  | 1,611               |                        |
| Circulation adjustment at 20%  |                  | 2,470               |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>14,818</b>       |                        |

FIGURE 5: DEPARTMENT OF PUBLIC WORKS (CONSOLIDATED) PROGRAMMING

| Space  | Size proposed SF | Total GSF Subtotals | Total GSF per division |
|--|------------------|---------------------|------------------------|
| <b>Operations - Shops</b>  |                  |                     |                        |
| Shared Vehicle Bay, storage cages and meter shop                           | 4345             |                     |                        |
| <b>SUBTOTAL</b>  |                  | 4,345               |                        |
| Gross area adjustment 15%  |                  | 652                 |                        |
| Circulation adjustment at 15%  |                  | 750                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>5,746</b>        |                        |
| <b>Operations - Wash Bay/Vehicle Storage and Prep</b>                      |                  |                     |                        |
| Wash Bay & Equipment Room  | 1538             |                     |                        |
| Vehicle Staging & Prep   | 38500            |                     |                        |
| <b>SUBTOTAL</b>  |                  | 40,038              |                        |
| Gross area adjustment 10%  |                  | 4,004               |                        |
| Circulation adjustment at 5%   |                  | 2,202               |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>46,244</b>       |                        |
| <b>OPERATIONS SUBTOTAL GSF</b>   |                  |                     | <b>70,621</b>          |
| <b>Building Support</b>  |                  |                     |                        |
| MEPFP Rooms, IT, Elevators and Stairs, Janitors                            | 1660             |                     |                        |
| <b>SUBTOTAL</b>  |                  | 1,660               |                        |
| Gross area adjustment 15%  |                  | 249                 |                        |
| Circulation adjustment at 20%  |                  | 382                 |                        |
| <b>SUBTOTAL GSF</b>  |                  | <b>2,291</b>        |                        |
| <b>BUILDING SUPPORT SUBTOTAL GSF</b>                                       |                  |                     | <b>2,291</b>           |
| <b>GRAND TOTAL DPW</b>   |                  |                     | <b>86,704</b>          |
| <b>Building Inspector Suite</b>  |                  |                     |                        |
| <b>SUBTOTAL GSF</b>  |                  | 2,954               |                        |
| <b>Public Facilities Department Suite</b>                                  |                  |                     |                        |
| <b>SUBTOTAL GSF</b>  |                  | 1,689               |                        |
| <b>Planning, Community Development, Conservation Commission, ZBA Suite</b> |                  |                     |                        |
| <b>SUBTOTAL GSF</b>  |                  | 2,537               |                        |
| <b>Park and Recreation Suite</b>   |                  |                     |                        |
| <b>SUBTOTAL GSF</b>  |                  | 1,725               |                        |
| <b>Other Departments SUBTOTAL GSF</b>                                      |                  |                     | <b>8,905</b>           |
| <b>CONSOLIDATED GSF</b>  |                  |                     | <b>95,609</b>          |
| Covered Parking for 36 Vehicles + Equipment                                |                  |                     |                        |
| Parking for 72 employees and 10 visitors                                   |                  |                     |                        |
| Fuel Island  |                  |                     |                        |
| 6 Bin Storage:patch 2 gravel, rock , sand, mulch                           |                  |                     |                        |
| Sanders  |                  |                     |                        |
| Exterior Cold Storage  |                  |                     |                        |
| Spreaders: gantry  |                  |                     |                        |
| Dumpster   |                  |                     |                        |
| Recycling dumpster   |                  |                     |                        |



Photo 36: DPW at Dedham Avenue - Bin Storage



Photo 37: DPW Cold Storage at Daley Building



Photo 38: Cold Storage for DPW

**POLICE AND FIRE DEPARTMENTS**

The Police and Fire Departments are currently housed in two facilities: the Police and Fire Headquarters at School and Chestnut Streets and Fire Station Two on Highland Avenue. Both buildings are well located to serve the community and programming was completed with no consideration of moving the departments off these sites.

The main building on Chestnut and School Streets includes shared space for the two departments as well as space dedicated for use by each department. The current building program includes most of the elements proposed during programming but right sizes those spaces to accommodate modern vehicles and equipment, reorganizes the use of common spaces, and includes spaces that are required to meet modern police and fire operational needs.

Included in the shared spaces are:

- Joint Dispatch
- Waiting areas
- Conference rooms
- Training and Emergency Operations Center
- Fitness and Wellness

Police programmed spaces:

- Operations and support space include: roll call / squad room, report writing, sergeants, evidence, armory vehicle storage, maintenance and wash bay, bulk evidence, crime lab, shooting range simulator and lunch and locker rooms
- Detention area includes: sallyport, booking and detention cells
- Administrative offices for command staff and administrators, records storage and office equipment

Fire Programmed spaces are:

- Operation areas includes: Apparatus bays, hose, gear, haz mat, medical and bulk storage, gear laundry, maintenance workshop, medical cleaning, SCBA fill room and oxygen storage, radio room
- Administrative offices for command staff and administrators, records storage and office equipment
- Staff support includes: Dorm rooms, toilets, showers, recreation room and kitchen

Site elements included:

- Parking for both staffs and visitors
- Dumpster and Recycling



Photo 39: Fire Station



Photo 40: Fire Station - Apparatus Bay

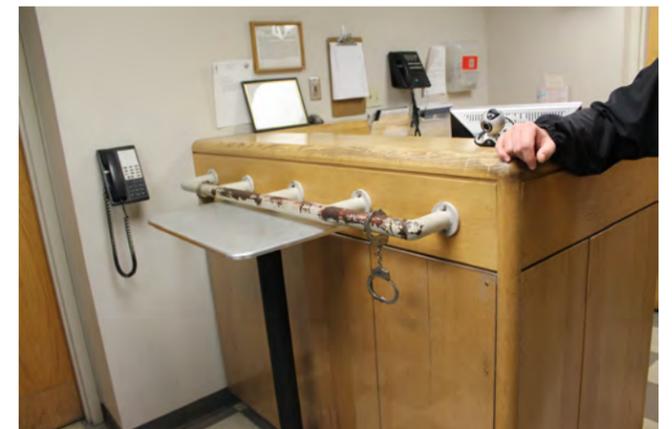


Photo 41: Police Station - Booking

| Space  | Size proposed SF | Total GSF Subtotals | Total GSF per division |
|--|------------------|---------------------|------------------------|
| <b>Police and Fire Department</b>                  |                  |                     |                        |
| <b>SHARED</b>                                      |                  |                     |                        |
| Joint Dispatch                                     | 450              |                     |                        |
| Waiting Areas                                      | 458              |                     |                        |
| Conference Rooms                                   | 216              |                     |                        |
| Training and Emergency Operations Center (EOC)     | 869              |                     |                        |
| Fitness/Wellness Area                              | 600              |                     |                        |
| <b>SUBTOTAL</b>                                    |                  | 2,593               |                        |
| Gross area adjustment 15%                          |                  | 389                 |                        |
| Circulation adjustment at 25%                      |                  | 745                 |                        |
| <b>SUBTOTAL GSF</b>                                |                  | <b>3,727</b>        |                        |
| <b>GRAND SHARED SUBTOTAL GSF</b>                   |                  |                     | <b>3,727</b>           |
| <b>Police</b>                                      |                  |                     |                        |
| <b>OPERATIONS + SUPPORT</b>                        |                  |                     |                        |
| Roll Call / Squad Room                             | 526              |                     |                        |
| Sergeants  | 320              |                     |                        |
| Evidence   | 500              |                     |                        |
| Armory   | 100              |                     |                        |
| Vehicle Storage                                    | 4444             |                     |                        |
| Crime Lab  | 256              |                     |                        |
| Lunch and Locker Rooms                             | 1930             |                     |                        |
| Shooting Range Simulator                           | 360              |                     |                        |
| <b>SUBTOTAL</b>                                    |                  | 8,436               |                        |
| Gross area adjustment 15%                          |                  | 1,265               |                        |
| Circulation adjustment at 25%                      |                  | 2,425               |                        |
| <b>SUBTOTAL GSF</b>                                |                  | <b>12,127</b>       |                        |
| <b>OPERATIONS - DETENTION</b>                      |                  |                     |                        |
| Sallyport  | 560              |                     |                        |
| Booking  | 450              |                     |                        |
| Detention Cells                                    | 532              |                     |                        |
| <b>SUBTOTAL</b>                                    |                  | 1,542               |                        |
| Gross area adjustment 15%                          |                  | 231                 |                        |
| Circulation adjustment at 25%                      |                  | 443                 |                        |
| <b>SUBTOTAL GSF</b>                                |                  | <b>2,217</b>        |                        |
| <b>ADMINISTRATION</b>                              |                  |                     |                        |
| Offices: Command Staff and Administrators          | 2478             |                     |                        |
| Records Storage                                    | 400              |                     |                        |
| Office Equipment / Copy                            | 593              |                     |                        |
| <b>SUBTOTAL</b>                                    |                  | 3,471               |                        |
| Gross area adjustment 15%                          |                  | 521                 |                        |
| Circulation adjustment at 25%                      |                  | 998                 |                        |
| <b>SUBTOTAL GSF</b>                                |                  | <b>4,990</b>        |                        |
| <b>GRAND POLICE SUBTOTAL GSF</b>                   |                  |                     | <b>19,333</b>          |
| <b>Fire</b>  |                  |                     |                        |
| <b>OPERATIONS</b>                                  |                  |                     |                        |
| Apparatus Bays                                     | 6,116            |                     |                        |
| Gear Storage                                       | 650              |                     |                        |
| Laundry  | 120              |                     |                        |
| Maintenance Workshop                               | 120              |                     |                        |
| Medical Cleaning, SCBA and Oxygen Fill and Storage | 564              |                     |                        |
| Radio Room   | 120              |                     |                        |
| Haz Mat Supply Storage                             | 80               |                     |                        |
| <b>SUBTOTAL</b>                                    |                  | 7,770               |                        |
| Gross area adjustment 15%                          |                  | 1,166               |                        |
| Circulation adjustment at 15%                      |                  | 1,340               |                        |

| Space   | Size proposed SF | Total GSF Subtotals | Total GSF per division |
|---|------------------|---------------------|------------------------|
| Haz Mat Supply Storage                          | 80               |                     |                        |
| <b>SUBTOTAL</b>                                 |                  | 7,770               |                        |
| Gross area adjustment 15%                       |                  | 1,166               |                        |
| Circulation adjustment at 15%                   |                  | 1,340               |                        |
| <b>SUBTOTAL GSF</b>                             |                  | <b>10,276</b>       |                        |
| <b>ADMINISTRATION</b>                           |                  |                     |                        |
| Offices: Command Staff and Administrators       | 1,612            |                     |                        |
| Records Storage                                 | 368              |                     |                        |
| Office Equipment / Copy                         | 247              |                     |                        |
| <b>SUBTOTAL</b>                                 |                  | 2,227               |                        |
| Gross area adjustment 15%                       |                  | 334                 |                        |
| Circulation adjustment at 25%                   |                  | 640                 |                        |
| <b>SUBTOTAL GSF</b>                             |                  | <b>3,201</b>        |                        |
| <b>STAFF SUPPORT</b>                            |                  |                     |                        |
| Dorm Rooms for 7 Firefighters per shift         | 1000             |                     |                        |
| Toilet / Shower Rooms                           | 415              |                     |                        |
| Rec Room  | 360              |                     |                        |
| Kitchen   | 250              |                     |                        |
| <b>SUBTOTAL</b>                                 |                  | 2,025               |                        |
| Gross area adjustment 15%                       |                  | 304                 |                        |
| Circulation adjustment at 25%                   |                  | 582                 |                        |
| <b>SUBTOTAL GSF</b>                             |                  | <b>2,911</b>        |                        |
| <b>GRAND SUBTOTAL GSF</b>                       |                  |                     | <b>16,388</b>          |
| <b>BUILDING SUPPORT</b>                         |                  |                     |                        |
| MEPFP Rooms, IT, Elevators and Stairs, Janitors | 1894             |                     |                        |
| <b>SUBTOTAL</b>                                 |                  | 1,894               |                        |
| Gross area adjustment 15%                       |                  | 284                 |                        |
| Circulation adjustment at 15%                   |                  | 327                 |                        |
| <b>SUBTOTAL GSF</b>                             |                  | <b>2,505</b>        |                        |
| <b>GRAND FIRE SUBTOTAL GSF</b>                  |                  |                     | <b>2,505</b>           |
| <b>GRAND TOTAL BUILDING</b>                     |                  |                     | <b>41,953</b>          |
| <b>Site Elements</b>                            |                  |                     |                        |
| Exterior Storage                                | 200              |                     |                        |
| <b>Parking</b>                                  |                  |                     |                        |
| Daily Staff Spaces                              | 60               |                     |                        |
| Other Municipal Official Parking                | 10               |                     |                        |
| Public  | 5                |                     |                        |
| <b>Total Parking</b>                            | <b>75</b>        |                     |                        |

FIGURE 6: POLICE AND FIRE STATION #1 PROGRAMMING

**RECREATION**

The Parks and Recreation and Conservation departments include buildings and grounds throughout Town dedicated for community use. The Memorial Park Trustees have jurisdiction over Memorial Park and Building. Most of the buildings are primarily used during the summer months and many of the buildings currently include space used to store DPW vehicles, equipment and materials. Community program needs have been met in other Town buildings but some program needs remain.

The Rosemary Pool and Building Study, by Weston & Sampson, includes a new pool within the existing footprint, improvements to the existing bathhouse, expansion of the lower parking lot, ADA compliant pedestrian connection from Rosemary Street, subsurface stormwater mitigation, and major beach and terrace area improvements.

Cricket Field, documented by Bargmann Hendrie + Archetype Inc., improvements include accessibility, building envelope, interior repairs to floors and walls, systems upgrades and site work to improve access.

The Memorial Park Building considerations included two options: 1) a stair and elevator addition and general repairs to make the building fully accessible and 2) a new building programmed to include concession and public toilets, garage space for equipment, team rooms, meeting and office space and a teen center.

A potential Community Center was also programmed. This building was looked at as a Public / Private opportunity and included the following spaces:

- Entry /help desk, reception and Child Watch
- Administrative Offices
- Natatorium with swimming pool and therapy pool
- Locker rooms
- Workout Facilities
- Gymnasium
- Community Rooms including a teen center and kitchen

Site elements included:

- Parking for both staff and visitors for approximately 300 vehicles
- Two playing Fields
- Dumpster and Recycling

An Ice Rink, including a single rink sized for use by a high school team, locker rooms for two teams, concession and office space are included in this program.



Photo 42: Rosemary Pool



Photo 43: Cricket Field Building

| Space  | Size proposed SF | Total GSF Subtotals |
|--|------------------|---------------------|
| <b>Community Building</b>  |                  |                     |
| <b>SHARED BUILDING SERVICES</b>  |                  |                     |
| Entry/Help Desk, reception and Child Watch   | 3872             |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>3,872</b>        |
| <b>OFFICE SUITE</b>  |                  |                     |
| Offices  | 1125             |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>1,125</b>        |
| <b>NATATORIUM</b>  |                  |                     |
| Swimming Pool and Sauna  | 9600             |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>9,600</b>        |
| <b>LOCKER ROOMS</b>  |                  |                     |
| Locker Rooms   | 5,000            |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>5,000</b>        |
| <b>WORKOUT FACILITIES</b>  |                  |                     |
| Studios, Cardio, Wellness  | 12100            |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>12,100</b>       |
| <b>BASKETBALL GYMNASIUM</b>  |                  |                     |
| Gymnasium and Track  | 18353            |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>18,353</b>       |
| <b>COMMUNITY ROOMS</b>   |                  |                     |
| Multi Use: Education/Community (2)   | 1200             |                     |
| Teen Center  | 800              |                     |
| Kitchen  | 150              |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>2,150</b>        |
| <b>GRAND TOTAL BUILDING W/O BUILDING SUPPORT</b>   |                  | <b>52,200</b>       |
| <b>BUILDING SUPPORT: Mechanical, Electrical, Plumbing, Fire Protection, Elevator, Stairs (Assume 15% of GSF)</b> |                  |                     |
| <b>SUBTOTAL INCLUDING GROSS AREA AND CIRCULATION ADJUSTMENTS</b>   |                  | <b>7,830</b>        |
| <b>GRAND TOTAL BUILDING</b>  |                  | <b>60,030</b>       |

FIGURE 7: COMMUNITY BUILDING PROGRAMMING

| Space  | Size proposed SF | Total GSF Subtotals |
|--|------------------|---------------------|
| <b>FIELD LEVEL</b>   |                  |                     |
| Lobby  | 296              |                     |
| Concession Stand   | 220              |                     |
| Team Room  | 1126             |                     |
| Garage Bay   | 1500             |                     |
| Public Restrooms   | 380              |                     |
| Building Storage   | 1280             |                     |
| <b>SUBTOTAL</b>  |                  | <b>4,802</b>        |
| Gross area adjustment 13%  |                  | 624                 |
| Circulation adjustment at 15%  |                  | 814                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>6,240</b>        |
| <b>UPPER LEVEL</b>   |                  |                     |
| Teen Center  | 2144             |                     |
| Meeting Room   | 1380             |                     |
| Offices  | 444              |                     |
| Restrooms  | 603              |                     |
| <b>SUBTOTAL</b>  |                  | <b>4,571</b>        |
| Gross area adjustment 13%  |                  | 594                 |
| Circulation adjustment at 15%  |                  | 775                 |
| <b>SUBTOTAL GSF</b>  |                  | <b>5,940</b>        |
| <b>TOTAL BLDG W/O BLDG SUPPORT</b>   |                  | <b>12,180</b>       |
| <b>BUILDING SUPPORT</b>  |                  |                     |
| Mechanical, Electrical, Data, Plumbing, Fire Protection, Elevator, Stairs: Assume 25% of GSF |                  |                     |
| <b>SUBTOTAL GSF</b>  |                  | <b>3,045</b>        |
| <b>GRAND TOTAL BUILDING</b>  |                  | <b>15,225</b>       |

FIGURE 7.1: MEMORIAL PARK BUILDING PROGRAMMING

**SCHOOLS AND SCHOOL ADMINISTRATION**

- ① Hillside School
- ② Mitchell School
- ③ Pollard Middle School
- ④ Needham High School
- ⑤ High Rock School
- ⑥ Emery Grover: Central Administration
- ⑦ Daley Building: Public Facilities - Operations
- ⑧ Nike Site

**DEPARTMENT OF PUBLIC WORKS**

- ⑨ Hollis Building – 470 Dedham Avenue
- ⑩ Water Pump Building - 484 Dedham Avenue
- ⑪ Public Service Administration Building (PSAB) – 500 Dedham Avenue
- ⑫ Recycling and Transfer Station (RTS)

**POLICE AND FIRE**

- ⑬ Police Station – School Street
- ⑭ Fire Station – Chestnut Street
- ⑮ Fire Station #2

**RECREATION**

- ⑯ Rosemary Pool
- ⑰ Memorial Park Building
- ⑱ Cricket Field Building
- ⑲ DeFazio Park

**OTHER**

- ⑳ Ridge Hill Reservation
- ㉑ Town Forest
- ㉒ Parcel 74 on Greendale Avenue

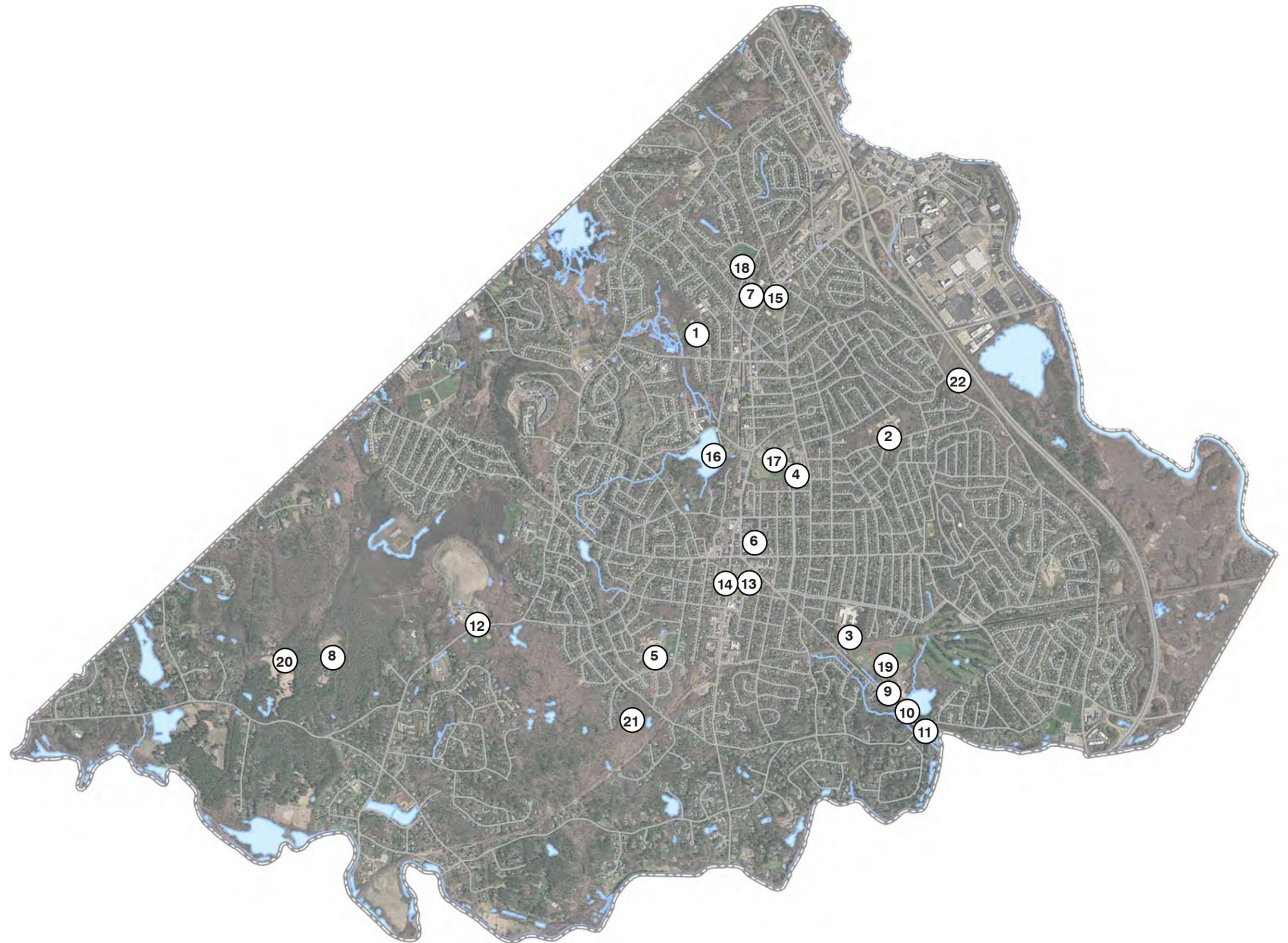


FIGURE 8: MAP OF NEEDHAM SITES



**INTRODUCTION TO EXISTING SITE & BUILDING**

**EVALUATION**

Existing and potential sites to accommodate the programs identified in Needs Assessment / Planning / Programming are identified in this section. The following Town owned sites have been evaluated. No investigation of privately held properties was completed. Circled numbers shown in Figure 8 correspond to the list below.

It was the intention of the Town that all identified programs be accommodated on their existing sites or on other Town owned property. No private property was considered although the Town may need to pursue rental property for some phased construction in the future.

**METHODOLOGY**

Existing sites and buildings were evaluated using the following methods:

**Previous studies:** Existing conditions have been documented in other studies with a focus on individual buildings and sites. See Volume 3 - Index of Previous Studies, Reports and Documents.

**Geographic Information Systems (GIS) Data:** Needham's GIS data forms the base information for existing site plans. This GIS information was most recently updated in 2013.

**Site Visits:**

All identified sites were visited by a member of the design team. Focused review included Pollard Middle School, Needham High School, Emery Grover, Daley Building, Department of Public Works at Dedham Avenue, Recycling and Transfer Station, Police and Fire Stations, Nike site, Memorial Park Building, DeFazio Park, Ridge Hill Reservation, Town Forest at High Rock, and Parcel 74 on Greendale Avenue.

**Interviews with Town Staff:**

Various user groups were interviewed to discuss pertinent data for their departments. These interviews included members of the School Department, Conservation and Recreation staff who provided valuable insight on comprehensive studies completed by others and

referenced in this document. In addition, extensive interviews with staff from the Department of Public Works and the Police and Fire Departments were completed in order to complete comprehensive programming documents and building evaluation.

**Site Evaluation**

As it was the intention of the Town to use only Town-owned property to accommodate programmed needs, a matrix of sites was assembled based on comments received during early visioning sessions with the Facility Working Group. While many sites were discussed, the matrix included only sites the FWG felt might be appropriate for each program. The FWG established a weighted criteria matrix that covered six major categories:

- Location
- Accessibility
- Site Features
- Environmental
- Site Development
- Availability
- Special Considerations

Members of the FWG agreed on criteria standards, the numerical value of each category, and then met as a group to complete each site matrix. The FWG relied on individual members of the group to offer their expertise on specific issues that arose during the process.



Photo 44: Hollis Building - 470 Dedham Avenue



Photo 47: Police and Fire Station #1 - Administration



Photo 45: Recycling Transfer Station - Tipping Floor



Photo 48: DPW Storage at Ridge Hill Garage



Photo 46: Fire Station #1 - Interior



Photo 49: Daley Building - Interior

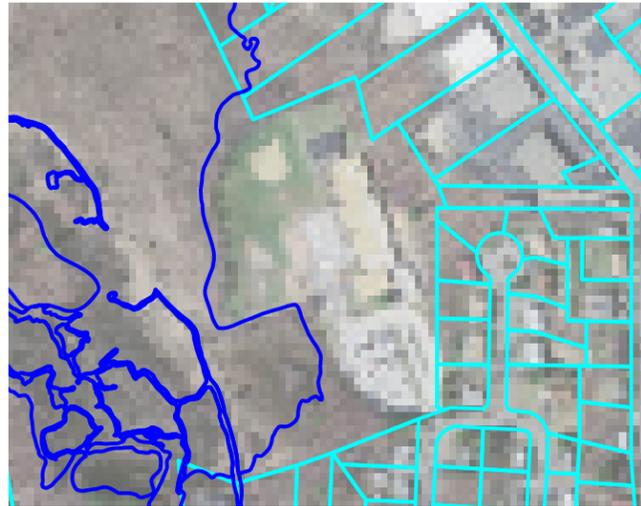


Figure 9



**HILLSIDE SCHOOL**

**24.6 Acres**  
**Jurisdiction: School Committee**

The Hillside elementary school, located on Glen Gary Road off of West Street, is a two story brick veneer building constructed in 1961, with an addition in 1968 and a modular classroom added in 1996. The building is aligned slightly west of a north south axis and is surrounded by residential development and a large wetland/marsh meadow and Rosemary Brook. The site has a high water table and is subject to flooding in crawl spaces. The site is also part of an ongoing environmental remediation project per the MADEP. The existing conditions are not a deterrent for future reuse of this site but additional site procedures and buildings systems are required for construction.

An asphalt play surface, and grass field are located directly west of the building and a baseball field is on the northern edge of the site. Play structures are located to the east of the school between the building and the wooded hill. Access to and from this site is complicated and constrained by small and congested streets. The main entrance and only vehicle entrance is from Glen Gary Road. Buses, a parent drop-off pick-up zone, and students walking to the school share circulation loops and sidewalks. Parking on site is undersized with no room for expansion.

The 47,000 sf school currently serves 435 students in grades K-5. The building is about 40% undersized per current MSBA standards. This building is fully utilized and public areas are used for teaching spaces and storage purposes. Classrooms, gymnasiums, lunchrooms, art, and music rooms are undersized based on current MSBA guidelines. The entire building is not accessible from within the building although access is available to both levels by way of separate exterior entry points. The library is not accessible from either floor or outside. Building systems require modernization, code updates and or replacement.

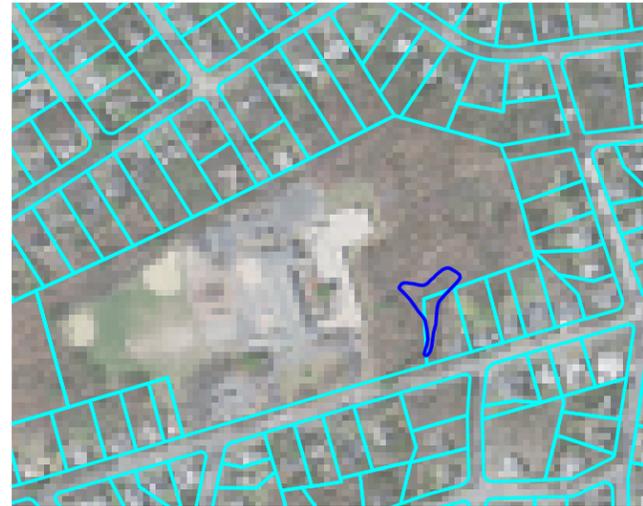


Figure 10



**MITCHELL SCHOOL**

**12.5 Acres**  
**Jurisdiction: School Committee**

The William Mitchell Elementary School, located on Brookline Street, is a single story, masonry building constructed between 1949 and 1951 with additions in 1958, and 1968. The building is located on two parcels of land in a densely populated residential neighborhood with sidewalks, which makes it conducive to walking to school. The site includes a wetlands area with a stream on the east side of the property and open playing fields and playgrounds on the west side. The site is bordered by Mitchell Woods. Modular classrooms were added to this site for the school year beginning in 2014.

The main entrance to the school is on Brookline Street with parking for parents, staff and visitors accessed by a one-way entrance/exit driveway loop. A secondary entrance off of Tower Avenue on the North side of the school provides additional parking, bus pick-up and drop-off. Parking is limited on this site as well as queuing space for cars at the beginning and end of the day.

The 49,000 square foot school serves approximately 490 students in grades K-5. This building area is fully utilized and public areas are used for teaching spaces and storage purposes. Classrooms, gymnasiums, lunch rooms, art, and music rooms are undersized based on current MSBA guidelines. The main entrance is accessible although not all components of the ramp conform to ADA and MAAB guidelines. The access ramps to the kindergarten, rear of the site, and the west part of the site with access to playgrounds, do not meet guidelines. Building systems require modernization, code updates and or replacement. The building is about 40% undersized per current MSBA standards.

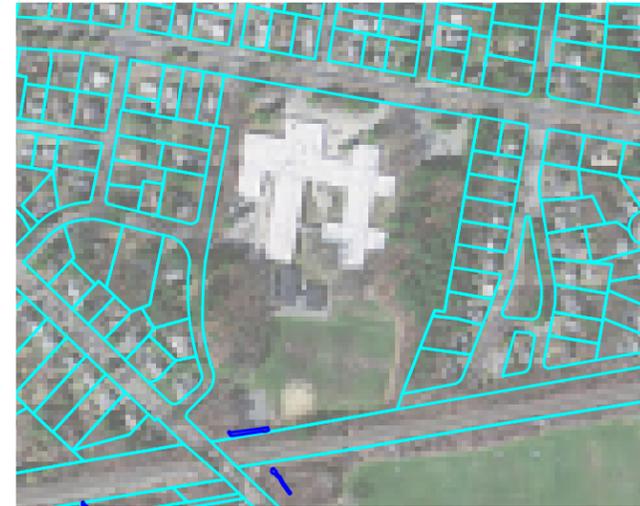


Figure 11



**POLLARD MIDDLE SCHOOL**

**15.6 Acres**  
**Jurisdiction: School Committee**

Pollard Middle School, located on Harris Avenue with the MBTA commuter rail line to the south, is a multi-level building constructed out of steel frame, aluminum storefront, brick veneer, wood siding and vinyl siding at the modular classrooms. The original building was constructed in 1958 with additions in 1969 and 1992. Ten modular classrooms were constructed in 2002 and were not designed as long term facilities. The site is located in a residential area and includes play areas to the rear of the school and a connection below the rail line to DeFazio Park. The School Committee also has jurisdiction over 10.68 acres of land to the south side of the rail road embankment.

The U shaped access road located off of Harris Avenue is used for student drop-off and pick-up, including students who are transported to the High Rock 6th grade center. There is limited parking for visitors along this driveway and bus / car circulation on site is inadequate. Parking areas are located along the NE and SW sides of the building. Some but not all of the exterior pathways are accessible.

The 147,000 square foot building serves approximately 870 students in grades 7 and 8. The general layout of the building appears to work well and library, gymnasium and auditorium are of suitable size for a middle school population. Improvements to science classrooms are a priority to address MSBA standards. Administrative spaces are not well located and there is a lack of appropriate administrative space. In 1996 renovations to the school included ADA and MAAB improvements. Although it appears that all locations of the building are accessible there are many areas of the building that will need to be improved to meet current MAAB standards therefore allowing full access to all students and staff.

The buildings are well maintained with on-going improvements in progress and with the long range plan of remaining in this building. More significant renovations / additions for this building are anticipated to address code-related and functional use improvements.



Figure 12



**NEEDHAM HIGH SCHOOL**

**14.0 Acres**  
**Jurisdiction: School Committee**

Needham High School, located on Webster Street was expanded and renovated in 2005-8. Designed for 1,450 students with ability to accommodate 1,600 for short peak durations the student population is now projected to exceed 1,700 for an extended period of time. The building is in excellent condition except for expected overcrowding in classrooms and the cafeteria. Modifications to existing classrooms, the addition of pre-fabricated / modular classrooms and an expansion of the cafeteria to accommodate the expanded student body are under consideration.



Figure 13



**HIGH ROCK SCHOOL**

**11.9 Acres**

**Jurisdiction: School Committee**

High Rock School, located on Ferndale Road, first opened as an elementary school in 1952 and was most recently expanded, renovated and reopened as the 6th grade center in 2009 to address overcrowding in the Pollard Middle School. This 61,650 square foot building currently houses 449 students who come from the five elementary schools of Needham. Bus access to the school is off of Ferndale Road and car access is located off of Linden Street.

Part of the building is located adjacent to existing wetlands buffer zone.

During the recent renovation, the classrooms, cafeteria, gymnasium, media center and administrative spaces were programmed to accommodate either a 6th grade center or an elementary school. If it were converted back into a K-5 school, the art wing would need to be renovated and expanded in order to accommodate kindergarten classrooms and special education spaces.

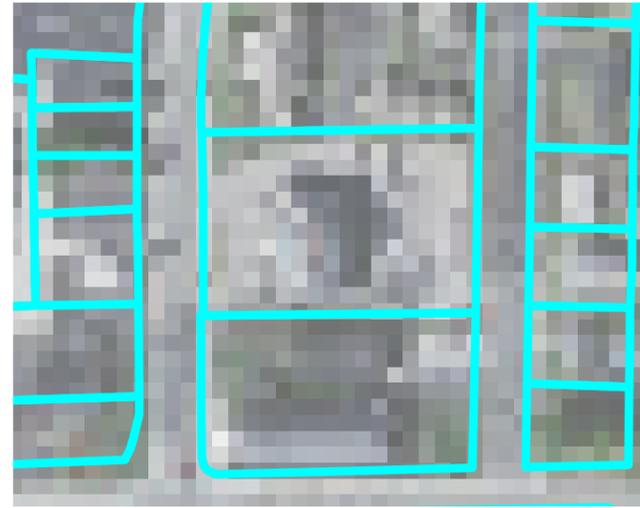


Figure 14



**EMERY GROVER**

**1.1 Acres**

**Jurisdiction: School Committee**

The Emery Grover Building, located on Highland Avenue, houses Central School Administration for the district. Originally constructed in 1898 as a high school, it continued this use until 1924 when increased enrollment required a larger building at which time it was used for special classes. In the early 1970's it was converted into its current use as School Administration offices. Anecdotal evidence suggests the building may have had some renovations in the 1930's and 1940's. This building is listed on both the Federal and State Historic Registries. Designation of the building as a national historic property does not preclude the Town from demolishing this structure if need be.

The building, well located in the downtown business district, has parking on multiple sides but the 72 spaces available are not sufficient for the needs of the department. Entering the site from Highland Avenue is a challenge and the entrance off Oakland Avenue is considered the better option.

The 22,460 square foot masonry building, including the two side porticos and the uninhabited attic space, is fully occupied by staff. The building spaces do not support the needs of a modern school administration and lacks critical office and meeting spaces.

The building is in need of general envelope repairs to the slate roof, copper flashings, brickwork and windows. In the interior little is left of the original spaces, although some components and finishes do remain. Structural systems may need additional reinforcement and / or new structure inserted to handle new loads. Building systems are antiquated. The main entry on Highland Avenue is not accessible and a new accessible entry will be required, creating a pathway from the parking areas and into the building. The entire building is inaccessible and a new elevator is required to make all floors of the building accessible.



Figure 15



**DALEY BUILDING**

**0.92 Acres**

**Jurisdiction: School Committee**

The Daley Building, a one story masonry structure, is located on a contiguous parcel with Fire Station #2. While the parcel has a leg that extends to Highland Avenue, it currently shares a common access drive with the Fire Station off of Webster Street. The building houses personnel for the Public Facilities Department - Operations Division, stores building and general maintenance supplies for all Town buildings and houses vehicles used by the workforce. The building also includes shops for small scale carpentry and mechanical / electrical projects.

Outside in the yard, the Department of Public Works stores materials used for underground infrastructure repair projects, which must be available 24/7. Access to this material becomes difficult in winter months.

The building is adequate for its existing use but is not a candidate for expansion due to its constrained site.



Figure 16



**NIKE SITE**

**19.1 Acres plus 2.15 Acre Access Easement**

**Jurisdiction: School Committee**

This site, at the intersection of Pine and Charles River Street, was used as a Nike missile battery from 1955 until 1963. A portion of the site was then used as a firing range for the Needham Police and was the repository of excavated soil from the High School Renovation project following lead abatement of areas near the firing range. The site currently is used as a Community Garden and a dog park.

Access to the site is by way of a narrow roadway located at a very difficult intersection. Improvements to this site for use by the Town or by another Public / Private development will require widening of the roadway to provide typical two way movements of all vehicles and the extension of site utilities through this easement and the site. Alternative access through the adjacent Ridge Hill site, tracing existing upper or lower access trails, is possible and may provide natural synergies between these potential recreational sites. Wetlands surround the property on the east side with significant changes of elevation at the edges of the site.

Potential use of this site for School Administration or a Community Building were explored.

Only about 9 acres of the Nike Site are able to be redeveloped. Over half of the area is wetlands or steep wooded hillside.



Figure 17

**DEPARTMENT OF PUBLIC WORKS - DEDHAM AVENUE**

**63.0 Acres with DPW portion approximately 9.9 Acres**

**Jurisdiction: Board of Selectmen**

The Town of Needham purchased a 36.36 acre triangular piece of land in the early 1940's along Dedham Avenue for a sandpit and use by the Public Works Department. It is known today as DeFazio Park, but was known then as the Norris Farm. Today this parcel is controlled by three jurisdictional bodies. The northern triangle (10.68 acres) was transferred to School Committee (SC) jurisdiction in the 1960's when the Pollard School was constructed. The SC jurisdiction today covers the land closest to Pollard currently including wetlands, a 90-foot baseball diamond, multipurpose field, and half of the track and associated field. A middle trapezoid of land (8.08 acres) on the right of the entry drive was transferred to the Park and Recreation Commission (PRC) in the late 1960's for playing fields. The PRC jurisdiction today includes wetlands, the 60-foot baseball diamond, the pavilion and parts of the track and turf field. The balance of the parcel (17.8 acres) remains under the jurisdictional control of the Board of Selectmen (BOS). This includes the DeFazio Park entry drive, the tot lot, the gravel parking lot, the adjacent baseball field, and portions of the turf fields as well as the old salt shed, cold storage yards, new prefabricated vehicle storage shed, and the Hollis Building (470 Dedham Ave). The DPW is also in charge of maintaining the playing fields and parking lot areas, regardless of the jurisdictional boundaries. Joint use of the parcels by all three jurisdictional bodies has been acknowledged since the reconstruction of the playing fields in the last decade as a part of the "Field of Dreams" project.

The BOS also controls five parcels, totaling 16.46 acres, comprising the Reservoir and surrounding lands. These were once used for town potable water supply, but now are used for landscape irrigation at DeFazio Park and the abutting



Needham Golf Course. The Water Pump Station building (484 Dedham Ave) and PSAB (500 Dedham Ave) parcels contain a further 3.72 acres of land under BOS control. The parcel survey and jurisdictional boundaries are shown on pages 34-35 of Volume 2.

This site includes a high water table, a perennial stream / channel, and significant wetlands. Buildings and site improvements are currently located in these wetlands buffer zones. Department of Environmental Protection and National Pollution Discharge Elimination System rules and regulations now demand controls for water pollution discharge into surface waters from public works facilities. Recent efforts to comply include the construction of a pre-engineered metal storage building.

Access to the site is off of Dedham Avenue between the Water Pump Station and the Hollis Building. The main driveway extends behind the Water Pump Station to the major parking area for staff and visitors to this department or the other related departments co-located at the Public Services Administration Building (PSAB). Another roadway extends north-west and leads to the rear of the Hollis Building, which houses the vehicle storage, shops and maintenance, the fuel depot and uphill to the pre-engineered vehicle storage building and the materials handling / cold storage areas. Additional access is through DeFazio Park with a connection at the old salt shed and materials handling / cold storage areas.

The current DPW structures include 67,400 square feet of space located in the Hollis Building, constructed in 1960 with an addition in 1965, the pre-engineered vehicle storage building constructed in 2014, the Water Pump Station building, constructed in 1942 and the Public Services Administration Building constructed in 2010. Some cold storage and materials lay down areas are located near the old salt shed in the area between the gravel parking area of DeFazio Park and the reservoir. In addition, the DPW controls 47,434 square feet of buildings and sites spread throughout Town for vehicles, equipment and materials.

The existing buildings are undersized for fleet and personnel and the Hollis Building is not accessible. Employee facilities are lacking, the building does not meet current egress or access codes and the buildings do not meet operational standards for a modern public works department.

The DPW buildings are located on lands that are under the jurisdictional control of the Board of Selectmen. DeFazio Park fields share jurisdictional controls with the Park & Recreation Commission, the School Department, and Board of Selectmen. The Conservation Commission will have authority over the wetland areas within the site which impact all 11 parcels that comprise DeFazio Park. A consensus plan is required for redevelopment. This redevelopment might also require: a Zoning By-Law amendment, property line adjustments and/or jurisdictional land swaps.



Figure 18

**DEPARTMENT OF PUBLIC WORKS - RECYCLING AND TRANSFER STATION**

**74.4 Acres**

**Jurisdiction: Board of Selectmen**

The Recycling and Transfer Station (RTS), located off of Central Avenue, provides residents with recycling and waste disposal services and is referred to as the RTS, previously as "The Dump." Private Haulers, Contractors and Landscapers may use the Needham Recycling and Transfer Station for the disposal of trash, recyclables, and / or yard waste after they have purchased an annual commercial disposal sticker.

This large site includes the closed and capped sanitary landfill located north of the RTS, a composting operations area, materials handling areas, and a salt / sand shed constructed in 2014. A 12 acre solar array will be installed in 2015 on top of the old infill. Buildings and structures include the tipping floor and the associated office area, the three bay garage and assorted other trailers and garages which house storage zones, offices and employee toilets and lunch areas.

The site is currently open to the public Tuesday through Saturday each week from 7:30am till 4:00pm. Central Avenue is a heavily traveled road, especially during the morning rush hour. The RTS has multiple entry / exit points to handle personal vehicles and large trucks associated with the transfer site.

A 12 acre site, east of the existing parcel, with wetlands, ledge and significant topographic changes in elevation, could also be accessed from the main transfer site entry if developed for use by the DPW. Full use of this site may require an additional entry off of Central Avenue and any work to develop this site would require blasting of ledge to create a buildable area large enough for either the entire DPW operations or as a materials / cold storage area.



Figure 19

**POLICE STATION - SCHOOL ST / FIRE STATION - CHESTNUT ST**

**1.4 Acres**

**Jurisdiction: Board of Selectmen**

The Police and Fire Station Building, a multi-leveled masonry structure located at the intersection of School and Chestnut Streets, houses the headquarters of the Police and Fire Departments. Originally constructed in the 1930's with an addition in 1989, a structural review suggests that the newer portion of the building should meet seismic code requirements but that the original building was constructed prior to seismic codes and the upgrading of that portion during any subsequent renovation is unknown. The building is not handicapped accessible although the two lobbies are accessible by way of exterior ramps.

The site is well located for fire response times and any future building for a fire department is recommended to be at this location. Parking for personnel from both departments as well as visitor parking is located around the site and in the newly acquired contiguous property which has been developed as parking areas. The apparatus apron onto Chestnut Street is well located and public parking areas are used for the movement of detainees from a squad car to a building entry. The building does not contain a sallyport which would provide safe movement for officers, detainees and the community.

The 31,145 square foot building includes 6,416 square feet of shared space, 13,095 square feet of police space and 11,634 square feet of fire space. While all essential functions are currently housed in the building the spaces are generally undersized for modern vehicles, equipment and personnel including building widths and heights for vehicles. Facilities for female employees are lacking. The organization of spaces also does not reflect current operational standards for dispatch, meetings or as an Emergency Operations Center.

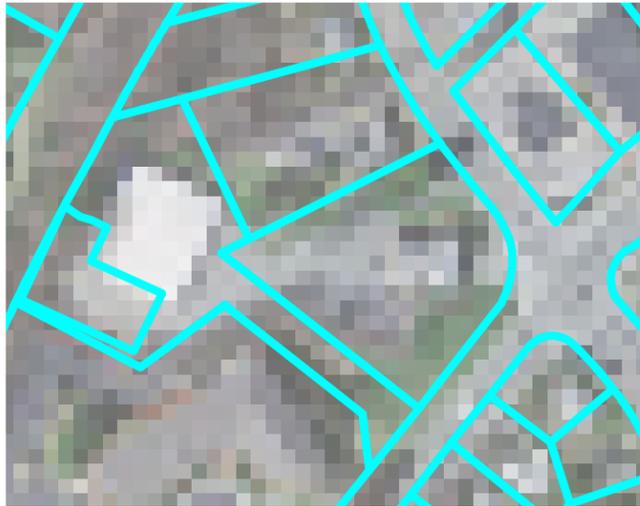


Figure 20

**FIRE STATION #2**

**1 Acre**

**Jurisdiction: Board of Selectmen**

The Fire Station #2, located on Highland Avenue, and adjacent to the Daley Building, is a three-story masonry structure. Originally constructed in 1906, the building underwent a major renovation in 1991 that included the dormitory section, windows and new mechanical infrastructure. The site includes an apron that exits into the intersection at Highland Avenue and Webster Street. There is also a driveway from Webster Street leading to the rear and lowest level of the structure which includes vehicle bays. That driveway is shared with the Daley Building.

The 8,709 square foot building is not identified for major reconstruction. However, general maintenance work that has been identified for this building includes repointing of masonry, replacement of roof, trim, rakes, soffits, fascia and cupola, window and door replacement and painting.



Figure 21

**ROSEMARY LAKE**

**37 Acres**

**Jurisdiction: Park & Recreation Commission**

Rosemary Pool Complex, located on Rosemary Street and at the eastern edge of Rosemary Lake, is located adjacent to the downtown business district. This complex is considered a community asset and the unique setting, a pool within an in-town lake, has been a gathering place for several generations of Needham citizens.

The pool complex was constructed in 1972 in response to elevated bacteria levels and water turbidity that rendered the lake unsuitable for swimming. The easterly portion of Rosemary Lake was then contained using corrugated metal coffer dam sheeting to separate pool from the lake. Water from Rosemary Lake is pumped, filtered and chlorinated for use in the pool. This was originally meant as a temporary solution with the intent to return the lake to a swimmable condition. This pool relies on the draining of Rosemary Lake for annual maintenance and the permit for this activity is to expire within the next few years.

The adjacent two level Bath House includes pool equipment, toilets and showers, private concession and a site office. Access to the bathhouse is difficult and the building is aging and not configured to maximize use. The filtration system is antiquated and undergoes constant repair work to maintain basic functions. Terraces, largely composed of compacted soil are in need of repair and the sandy beach areas closest to the pool are not suitable for digging. Driveways, parking lots and pathways do not meet ADA requirements although there have been some improvements that allow access between the pool and bathhouse bathrooms, and universal access has not been achieved.



Figure 22

**MEMORIAL FIELD BUILDING**

**13 Acres**

**Jurisdiction: Trustees of Memorial Park**

Memorial Park, located on Rosemary Street, was created to honor the residents of Needham who served in the armed forces of the United States. The concrete block building was originally constructed in 1955-56 as an equipment workshop and modified in 1970 with the addition of rear section of building and a second level. The 8,772 square foot masonry and wood structure contains public toilets, a concession stand, garage space for DPW equipment and field materials, storage space for team sports equipment, office space and meeting rooms. Another approximately 1,800 square feet of attic eave space is utilized for storage of sports equipment.

The building is a small portion of the site which also includes parking, memorials and garden in honor of veterans, a gazebo, two community event sign boards, a synthetic multi-purpose field, a 90-foot natural turf diamond, and a 60-foot synthetic turf diamond. Parking is plentiful.

The existing building is not accessible. Access to the upper level is by way of one internal stair. Egress from this level is from that stair and an unenclosed exterior stair. The overall building condition suggests that renovation to provide code required access, an elevator and two stairs, and general repairs to all spaces are required.



Figure 23

**CRICKET FIELD**

**5 Acres**

**Jurisdiction: Park & Recreation Commission**

This building and field, located on Hillside Avenue, has been an active public park since it was gifted to the town in 1938. The site contains a playground, fields, memorials, and open space, and the only large field in the Needham Heights community.

The building, a single level wood framed building with a storage area below the main floor, is primarily used in the summertime. The building is in need of general repair to the envelope and interior spaces. Infrastructure work would include fire alarm systems, security system, exhaust fans in toilets and ceiling fans in main space. Repair work would include creating an accessible pathway to the building, accessible bathrooms, sewer connection, roof repairs, fire alarm code improvements, a new security system, deck and railing repairs, new windows and new doors. The building must become fully accessible.



Figure 24

**DeFAZIO PARK**

**36.5 Acres**

**Jurisdiction: Park & Recreation Commission, School Committee, and Board of Selectmen**

DeFazio Park, at 380 Dedham Avenue comprised of lands under the jurisdiction of the School Committee, Park & Recreation Commission and the Board of Selectmen, as noted on page 24. It is part of the 36.5 acres of public land and is situated between the DPW and the MBTA train line. Adjacent to this field is the Needham Golf Course and the fields associated with Pollard Middle School north of the railroad right-of-way. The site contains two synthetic multi-purpose fields with athletic field lights, two natural grass multi-purpose fields, one 60' diamond, two 90' diamonds, an 8-lane track, playground equipment for ages 3-5 and ages 5-8, public restrooms, parking and a picnic area with grills. This site includes wetlands.

The site development, completed in 2009, is beautifully maintained and well used all year long. The Park location overlaps with the area of the DPW used for material laydown and cold storage of equipment.

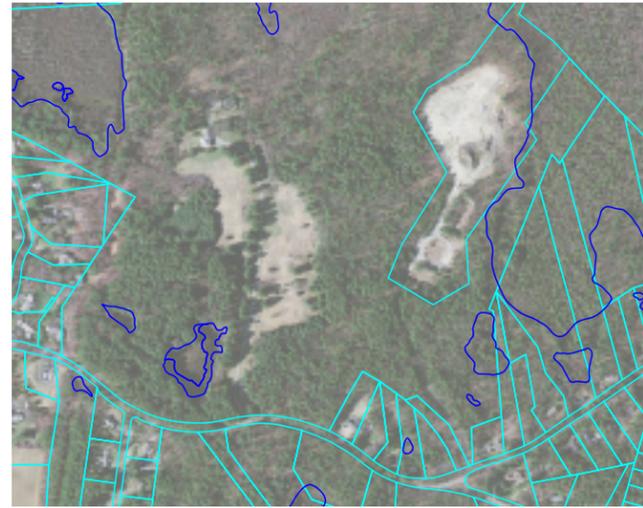


Figure 25

**RIDGE HILL RESERVATION**

**352 Acres, 3.04 Acres within boundaries**

**Jurisdiction: Conservation Commission and Board of Selectmen (3.04 Acres)**

Ridge Hill Reservation, located off of Charles River Street, is comprised of 352 acres of public open space purchased with federal and state funding by Needham in 1971 for passive recreation. The site runs from the Charles River to Charles River Street, and is bordered by undeveloped parcels in private ownership. The main portion of Ridge Hill Reservation extends from Charles River Street to the Wellesley town line. Access points from public streets occur off of four streets. Other sections of the Reservation are bordered by undeveloped lands or farmland. Dense woods surround wetlands and open meadows which climb to the Morse-Bradley house which has scenic views to the east. Miles of trails and a picnic area are open to the public.

The main house, an 8,993 square foot two story wood framed stucco structure with deep overhanging eaves, was constructed in 1906. The building is not fully accessible although an elevator lift connects the main levels of the original house. The "ell" addition is connected to the main house by stairs. The building is no longer used regularly for Town functions or as a rental property for private functions. The site contains a wooden, multi-level barn structure which include an apartment originally used by the park ranger resident. This building is used for storage. The site also includes a garage which is used by the DPW for storage of seasonal equipment and by summer camps. The garage does contain toilets. The buildings have fallen into disrepair, with evidence of water damage on the exterior and interior, gutters and leaders disengaged from the building, and masonry in need of repointing. Mechanical electrical and plumbing systems are no longer appropriate and will need full replacement. Ridge Hill is not connected to Town Sewer.



Figure 26

**TOWN FOREST**

**200+ Acres, Approximately 16 Acres in Parcel Shown**

**Jurisdiction: Park & Recreation Commission**

The Needham Town Forest is a relatively small but trail-dense area. It consists of more than 200 acres of mature woods with a few small ponds. There is one scenic overlook at the top of High Rock in the easternmost section of the forest off of High Rock Street. In all there are about 9 miles of single-track trails in the forest. An old road, within the property, is approximately a mile long.



Figure 27

**PARCEL 74 (GREENDALE AVENUE)**

**13.0 Acres**

**Jurisdiction: Park & Recreation Commission**

This undeveloped site is adjacent to Route 128 and runs parallel with Greendale Avenue. It is surrounded by residential development on all sides. The site includes walking trails and is easily accessible off of Greendale Avenue and Cheney Street. The site contains significant changes in elevation but no ledge is obvious. This significant change in topography may be used to minimize any visual impact of building construction. An existing force main easement runs through the property which will be replaced if the site is developed.

**SITE EVALUATIONS**

**INTRODUCTION TO SITE EVALUATIONS**

At the beginning of the study, 5 primary categories of work were included with 16 buildings and sites identified. Following the visioning session and preliminary programming, several other sites were identified by members of the Facilities Working Group (FWG) and included in the site assessments. Potential sites were first screened for use based on the developing needs programs. Though a site may be available and Town owned, those qualities alone did not make it viable for consideration of development for the projects included in this Facility Master Plan. A site criteria document was produced based on issues identified in visioning and was then shared with the FWG who provided considerable input into the development of the criteria, the assignment of value in each category and the final selection of sites that would be included under each project type. The FWG completed a draft of the matrices and then met in several sessions to complete each matrix.

The FWG agreed on 12 possible sites to be evaluated with some sites considered for several programs. The final matrix yielded 17 possible site / program combinations. During the sessions when site assessments were discussed, debated, and finalized, members of the FWG relied on the expertise of Town staff to help them assess each site using similar information. No sites were eliminated at this level.

The highest ranked sites resulting from this evaluation were then further studied with planning options prepared as presented in Planning Options.

**PROGRAM - SITE EVALUATION CRITERIA**

The matrix was developed using a 100 point maximum value system. The matrices were developed with these seven categories:

- Location
- Accessibility
- Site Features
- Environmental
- Site Development
- Availability
- Special Considerations

Each of the seven categories was assigned a maximum value and was then subdivided into several sub-categories that detailed related issues. Within each of those sub-categories a value was assigned that, when added together, did not exceed the maximum value of its' related main category. Comments were provided for each subcategory to guide the review and assessment of each item.

The seventh category, Special Considerations, related mostly to unique site conditions and included sub-categories such as temporary buildings, permanent or temporary changes in use and time considerations. No value was assigned to this category.

**PROGRAM - SITE EVALUATION MATRIX**

Four matrices were completed for the following programs:

- Department of Public Works: 5 sites
- Police and Fire Departments: 1 site
- School Administration Building: 5 sites
- Community Center: 6 sites

No site selection was completed for the school building projects which are part of the Massachusetts School Building Authority process.

The Department of Public Works sites and their values included:

- 470 Dedham Avenue – 51 points
- The Recycling and Transfer Station including the 12 acres of undeveloped land – 53 points
- Parcel 74 (Greendale Avenue) – 76 points
- Town Forest – 62 points
- Nike Site – 67 points

The Fire and Police Department site and its value was:

- Chestnut / School Street – 92 points

The School Administration sites and their values included:

- Emery Grover – 77 points
- Chestnut / School Street with FD / PD – 80 points
- PSAB at Dedham Avenue – 92 points
- Nike Site – 69 points
- Hillside Existing Building – 83 points

The Community Center sites and their values included:

- Parcel 74 (Greendale Avenue) – 70 points
- Town Forest – 72 points
- Nike Site – 70 points
- 470 Dedham Avenue – 59 points
- Hillside Existing Building – 70 points
- Ridge Hill land – 70 points

The site matrices indicated that more than one site could adequately meet the needs of a department, and that land swaps, requiring “trading” jurisdictional control over properties, may provide benefits. The matrices also indicated that if re-organization is suggested, that those changes could affect neighborhood schools, emergency response times, conversion of a traditionally passive recreation site, historical use of a property or the operations of the department. Ultimately, this matrix development process was a somewhat subjective but extremely fair way of assessing sites as related to specific building types.



Photo 50: Memorial Field Building - Interior



Photo 51: Old Water Pump Building - Interior



Photo 52: Police Station - Crime Lab

PROGRAM - SITE EVALUATIONS

FIGURE 28: CRITERIA MATRIX - SCHOOL ADMINISTRATION

| CATEGORY                                      | Emery Grover | Chestnut/School | FD/PS        | PSAB - Dedham | Nike Site    | Hillside Existing | Max | CRITERIA/COMMENTS   |
|---|--------------|-----------------|--------------|---------------|--------------|-------------------|-----|---|
|   | Actual Value | Actual Value    | Actual Value | Actual Value  | Actual Value | Actual Value      |     |   |
| <b>1. LOCATION</b>                            | <b>20</b>    | <b>15</b>       | <b>19</b>    | <b>13</b>     | <b>17</b>    | <b>20</b>         |     |   |
| 1.1 Geographic location                       | 5            | 5               | 4            | 1             | 4            | 5                 |     | Central to mission; moderate changes to operations; requires change to existing operations  |
| 1.2 Neighborhood                              | 5            | 3               | 5            | 4             | 5            | 5                 |     | Minimal impact on residential neighborhood and community; moderate impact; significant impact   |
| 1.3 Current Use                               | 4            | 3               | 4            | 3             | 3            | 4                 |     | Continued use; compatible use; currently undeveloped and used by others (recreational use open space)   |
| 1.4 Zoning By-laws                            | 3            | 2               | 3            | 2             | 3            | 3                 |     | Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)                         |
| 1.5 Public Facade/Screening                   | 3            | 2               | 3            | 3             | 2            | 3                 |     | No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening   |
| <b>2. ACCESSIBILITY</b>                       | <b>9</b>     | <b>10</b>       | <b>10</b>    | <b>3</b>      | <b>8</b>     | <b>10</b>         |     |   |
| 2.1 Site Access                               | 4            | 5               | 5            | 1             | 4            | 5                 |     | Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access   |
| 2.2 Traffic                                   | 5            | 5               | 5            | 2             | 4            | 5                 |     | No impact on traffic patterns; some impact; significant impact  |
| <b>3. SITE FEATURES</b>                       | <b>8</b>     | <b>12</b>       | <b>17</b>    | <b>20</b>     | <b>14</b>    | <b>20</b>         |     |   |
| 3.1 Adequate site size                        | 3            | 4               | 5            | 6             | 4            | 6                 |     | Optimum size - allows for expansion; good size but no expansion capability; undersized for full program   |
| 3.2 Existing Structures/Historic Preservation | 2            | 4               | 3            | 4             | 3            | 4                 |     | Existing structures will not impede development ; some impact on intended use; full impact  |
| 3.3 Operations - ease of use                  | 3            | 3               | 4            | 4             | 4            | 4                 |     | Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively   |
| 3.4 Flexibility/Circulation                   | 0            | 1               | 5            | 6             | 3            | 6                 |     | Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility   |
| <b>4. ENVIRONMENTAL</b>                       | <b>15</b>    | <b>15</b>       | <b>14</b>    | <b>7</b>      | <b>13</b>    | <b>15</b>         |     |   |
| 4.1 Wetlands                                  | 4            | 4               | 3            | 3             | 3            | 4                 |     | No wetlands or all work will occur outside of CorCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species   |
| 4.2 Stormwater Management                     | 5            | 5               | 5            | 1             | 4            | 5                 |     | Reasonable cost for stormwater management; moderate costs; excessive costs  |
| 4.3 Conservation/DEP Permitting               | 4            | 4               | 4            | 1             | 4            | 4                 |     | No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat   |
| 4.4 Existing Tree Cover                       | 2            | 2               | 2            | 2             | 2            | 2                 |     | No major reduction; minimum to moderate clearing; major clearing  |
| <b>5. SITE DEVELOPMENT</b>                    | <b>14</b>    | <b>17</b>       | <b>19</b>    | <b>11</b>     | <b>16</b>    | <b>20</b>         |     |   |
| 5.1 Utilities                                 | 4            | 4               | 4            | 2             | 4            | 4                 |     | Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site   |
| 5.2 Topography                                | 3            | 4               | 4            | 4             | 4            | 4                 |     | Slopes range: % to %: appropriate for buildings parking - full access; some revisions to meet needs; significant access issues  |
| 5.3 Soils                                     | 3            | 4               | 4            | 2             | 4            | 4                 |     | Adequate for bearing capacity; non-standard foundations required  |
| 5.4 Hazardous Materials                       | 3            | 4               | 4            | 2             | 1            | 4                 |     | Free of known contaminants; testing required; site history of contaminants  |
| 5.5 Costs of Development                      | 1            | 1               | 3            | 1             | 3            | 4                 |     | Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)   |
| <b>6. AVAILABILITY</b>                        | <b>11</b>    | <b>11</b>       | <b>13</b>    | <b>15</b>     | <b>15</b>    | <b>15</b>         |     |   |
| 6.1 Jurisdictional Control                    | 5            | 4               | 4            | 5             | 5            | 5                 |     | Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval |
| 6.2 Displacement Required                     | 1            | 3               | 4            | 5             | 5            | 5                 |     | Cost of relocation minimal, moderate; excessive Cost, availability, time schedule, eminent domain;  |
| 6.3 Acquisition                               | 5            | 4               | 5            | 5             | 5            | 5                 |     | Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain   |
| <b>TOTAL</b>                                  | <b>77</b>    | <b>80</b>       | <b>92</b>    | <b>69</b>     | <b>83</b>    | <b>100</b>        |     |   |
| <b>7. SPECIAL CONSIDERATIONS</b>              |              |                 |              |               |              |                   |     |   |
| 7.1 Temporary buildings                       |              |                 |              |               |              |                   |     | Costs to temporarily house intended use minimal; moderate; excessive  |
| 7.2 Permanent changes to use                  |              |                 |              |               |              |                   |     | Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use  |
| 7.3 Temporary use of site                     |              |                 |              |               |              |                   |     | Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use   |
| 7.4 Time Schedule                             |              |                 |              |               |              |                   |     | Impact of Delay   |

FIGURE 29: CRITERIA MATRIX - DEPARTMENT OF PUBLIC WORKS

| CATEGORY                                      | 470 Dedham   | RTS          | Greendale Ave. | Town Forest  | Nike Site    | Max        | CRITERIA/COMMENTS |   |
|---|--------------|--------------|----------------|--------------|--------------|------------|-------------------|---|
|   | Actual Value | Actual Value | Actual Value   | Actual Value | Actual Value |            |                   |   |
| <b>1. LOCATION</b>                            | <b>18</b>    | <b>14</b>    | <b>12</b>      | <b>8</b>     | <b>14</b>    | <b>20</b>  |                   |   |
| 1.1 Geographic location                       | 5            | 3            | 5              | 4            | 2            | 5          |                   | Central to mission; moderate changes to operations; requires change to existing operations  |
| 1.2 Neighborhood                              | 5            | 4            | 3              | 1            | 4            | 5          |                   | Minimal impact on residential neighborhood and community; moderate impact; significant impact   |
| 1.3 Current Use                               | 4            | 3            | 0              | 0            | 3            | 4          |                   | Continued use; compatible use; currently undeveloped and used by others (recreational use open space)   |
| 1.4 Zoning By-laws                            | 2            | 2            | 2              | 2            | 2            | 3          |                   | Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)                         |
| 1.5 Public Facade/Screening                   | 2            | 2            | 2              | 1            | 3            | 3          |                   | No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening   |
| <b>2. ACCESSIBILITY</b>                       | <b>4</b>     | <b>2</b>     | <b>7</b>       | <b>5</b>     | <b>2</b>     | <b>10</b>  |                   |   |
| 2.1 Site Access                               | 3            | 1            | 4              | 3            | 1            | 5          |                   | Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access   |
| 2.2 Traffic                                   | 1            | 1            | 3              | 2            | 1            | 5          |                   | No impact on traffic patterns; some impact; significant impact  |
| <b>3. SITE FEATURES</b>                       | <b>3</b>     | <b>11</b>    | <b>19</b>      | <b>15</b>    | <b>19</b>    | <b>20</b>  |                   |   |
| 3.1 Adequate site size                        | 0            | 2            | 6              | 4            | 6            | 6          |                   | Optimum size - allows for expansion; good size but no expansion capability; undersized for full program   |
| 3.2 Existing Structures/Historic Preservation | 1            | 4            | 4              | 1            | 3            | 4          |                   | Existing structures will not impede development ; some impact on intended use; full impact  |
| 3.3 Operations - ease of use                  | 2            | 2            | 4              | 4            | 4            | 4          |                   | Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively   |
| 3.4 Flexibility/Circulation                   | 0            | 3            | 5              | 6            | 6            | 6          |                   | Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility   |
| <b>4. ENVIRONMENTAL</b>                       | <b>9</b>     | <b>8</b>     | <b>12</b>      | <b>7</b>     | <b>7</b>     | <b>15</b>  |                   |   |
| 4.1 Wetlands                                  | 1            | 1            | 4              | 3            | 3            | 4          |                   | No wetlands or all work will occur outside of CorCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species   |
| 4.2 Stormwater Management                     | 2            | 2            | 4              | 3            | 1            | 5          |                   | Reasonable cost for stormwater management; moderate costs; excessive costs  |
| 4.3 Conservation/DEP Permitting               | 4            | 4            | 4              | 1            | 1            | 4          |                   | No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat   |
| 4.4 Existing Tree Cover                       | 2            | 1            | 0              | 0            | 2            | 2          |                   | No major reduction; minimum to moderate clearing; major clearing  |
| <b>5. SITE DEVELOPMENT</b>                    | <b>10</b>    | <b>7</b>     | <b>16</b>      | <b>17</b>    | <b>12</b>    | <b>20</b>  |                   |   |
| 5.1 Utilities                                 | 4            | 2            | 4              | 4            | 2            | 4          |                   | Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site   |
| 5.2 Topography                                | 4            | 2            | 2              | 3            | 4            | 4          |                   | Slopes range: % to %: appropriate for buildings parking - full access; some revisions to meet needs; significant access issues  |
| 5.3 Soils                                     | 0            | 2            | 4              | 3            | 2            | 4          |                   | Adequate for bearing capacity; non-standard foundations required  |
| 5.4 Hazardous Materials                       | 1            | 1            | 4              | 4            | 3            | 4          |                   | Free of known contaminants; testing required; site history of contaminants  |
| 5.5 Costs of Development                      | 1            | 0            | 2              | 3            | 1            | 4          |                   | Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)   |
| <b>6. AVAILABILITY</b>                        | <b>10</b>    | <b>11</b>    | <b>8</b>       | <b>8</b>     | <b>11</b>    | <b>15</b>  |                   |   |
| 6.1 Jurisdictional Control                    | 4            | 4            | 1              | 1            | 3            | 5          |                   | Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval |
| 6.2 Displacement Required                     | 1            | 2            | 4              | 4            | 3            | 5          |                   | Cost of relocation minimal, moderate; excessive Cost, availability, time schedule, eminent domain;  |
| 6.3 Acquisition                               | 5            | 5            | 3              | 3            | 5            | 5          |                   | Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain   |
| <b>TOTAL</b>                                  | <b>54</b>    | <b>53</b>    | <b>74</b>      | <b>60</b>    | <b>65</b>    | <b>100</b> |                   |   |
| <b>7. SPECIAL CONSIDERATIONS</b>              |              |              |                |              |              |            |                   |   |
| 7.1 Temporary buildings                       |              |              |                |              |              |            |                   | Costs to temporarily house intended use minimal; moderate; excessive  |
| 7.2 Permanent changes to use                  |              |              |                |              |              |            |                   | Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use  |
| 7.3 Temporary use of site                     |              |              |                |              |              |            |                   | Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use   |
| 7.4 Time Schedule                             |              |              |                |              |              |            |                   | Impact of Delay   |

PROGRAM - SITE EVALUATIONS

FIGURE 30: CRITERIA MATRIX - FIRE STATION #1 / POLICE DEPARTMENT

| CATEGORY                                      | Chestnut School St |            | CRITERIA/COMMENTS   |
|---|--------------------|------------|---|
|   | Actual Value       | Max Value  |   |
| <b>1. LOCATION</b>                            | <b>19</b>          | <b>20</b>  |   |
| 1.1 Geographic location                       | 5                  | 5          | Central to mission; moderate changes to operations; requires change to existing operations  |
| 1.2 Neighborhood                              | 5                  | 5          | Minimal impact on residential neighborhood and community; moderate impact; significant impact   |
| 1.3 Current Use                               | 4                  | 4          | Continued use; compatible use; currently undeveloped and used by others (recreational use open space)   |
| 1.4 Zoning By-laws                            | 3                  | 3          | Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)                         |
| 1.5 Public Facade/Screening                   | 2                  | 3          | No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening   |
| <b>2. ACCESSIBILITY</b>                       | <b>10</b>          | <b>10</b>  |   |
| 2.1 Site Access                               | 5                  | 5          | Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access   |
| 2.2 Traffic                                   | 5                  | 5          | No impact on traffic patterns; some impact; significant impact  |
| <b>3. SITE FEATURES</b>                       | <b>15</b>          | <b>20</b>  |   |
| 3.1 Adequate site size                        | 6                  | 6          | Optimum size - allows for expansion; good size but no expansion capability; undersized for full program   |
| 3.2 Existing Structures/Historic Preservation | 1                  | 4          | Existing structures will not impede development ; some impact on intended use; full impact  |
| 3.3 Operations - ease of use                  | 4                  | 4          | Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively   |
| 3.4 Flexibility/Circulation                   | 4                  | 6          | Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility   |
| <b>4. ENVIRONMENTAL</b>                       | <b>15</b>          | <b>15</b>  |   |
| 4.1 Wetlands                                  | 4                  | 4          | No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species   |
| 4.2 Stormwater Management                     | 5                  | 5          | Reasonable cost for stormwater management; moderate costs; excessive costs  |
| 4.3 Conservation/DEP Permitting               | 4                  | 4          | No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat   |
| 4.4 Existing Tree Cover                       | 2                  | 2          | No major reduction; minimum to moderate clearing; major clearing  |
| <b>5. SITE DEVELOPMENT</b>                    | <b>20</b>          | <b>20</b>  |   |
| 5.1 Utilities                                 | 4                  | 4          | Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site   |
| 5.2 Topography                                | 4                  | 4          | Slopes range: % to %; appropriate for buildings parking - full access; some revisions to meet needs; significant access issues  |
| 5.3 Soils                                     | 4                  | 4          | Adequate for bearing capacity; non-standard foundations required  |
| 5.4 Hazardous Materials                       | 4                  | 4          | Free of known contaminants; testing required; site history of contaminants  |
| 5.5 Costs of Development                      | 4                  | 4          | Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)   |
| <b>6. AVAILABILITY</b>                        | <b>13</b>          | <b>15</b>  |   |
| 6.1 Jurisdictional Control                    | 5                  | 5          | Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval |
| 6.2 Displacement Required                     | 3                  | 5          | Cost of relocation minimal; moderate; excessive   |
| 6.3 Acquisition                               | 5                  | 5          | Cost, availability, time schedule, eminent domain; Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain  |
| <b>TOTAL</b>                                  | <b>92</b>          | <b>100</b> |   |
| <b>7. SPECIAL CONSIDERATIONS</b>              |                    |            |   |
| 7.1 Temporary buildings                       |                    |            | Costs to temporarily house intended use minimal; moderate; excessive  |
| 7.2 Permanent changes to use                  |                    |            | Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use  |
| 7.3 Temporary use of site                     |                    |            | Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use   |
| 7.4 Time Schedule                             |                    |            | Impact of Delay   |

would require the acquisition of the remaining housing parcel for parking/circulation; deck parking is also possible.

FIGURE 31: CRITERIA MATRIX - COMMUNITY CENTER

| CATEGORY                                      | Greendal Ave Parcel 74 | Town Forest  | Nike         | 470 Dedham Ave. | Hillside     | Ridge Hill   | Max Value  | CRITERIA/COMMENTS   |
|---|------------------------|--------------|--------------|-----------------|--------------|--------------|------------|---|
|   | Actual Value           | Actual Value | Actual Value | Actual Value    | Actual Value | Actual Value |            |   |
| <b>1. LOCATION</b>                            | <b>11</b>              | <b>9</b>     | <b>11</b>    | <b>14</b>       | <b>14</b>    | <b>11</b>    | <b>20</b>  |   |
| 1.1 Geographic location                       | 4                      | 4            | 3            | 5               | 5            | 3            | 5          | Central to mission; moderate changes to operations; requires change to existing operations  |
| 1.2 Neighborhood                              | 3                      | 2            | 3            | 4               | 4            | 3            | 5          | Minimal impact on residential neighborhood and community; moderate impact; significant impact   |
| 1.3 Current Use                               | 1                      | 1            | 1            | 2               | 2            | 1            | 4          | Continued use; compatible use; currently undeveloped and used by others (recreational use open space)   |
| 1.4 Zoning By-laws                            | 1                      | 1            | 1            | 1               | 1            | 1            | 3          | Allowed - complies with use, dimensional requirements and performance standards; Use allowed with moderate approval; Use will be difficult or costly to win approval (due to constraints such as historic preservation)                         |
| 1.5 Public Facade/Screening                   | 2                      | 1            | 3            | 2               | 2            | 3            | 3          | No private owner abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening   |
| <b>2. ACCESSIBILITY</b>                       | <b>7</b>               | <b>7</b>     | <b>2</b>     | <b>7</b>        | <b>7</b>     | <b>4</b>     | <b>10</b>  |   |
| 2.1 Site Access                               | 4                      | 4            | 1            | 3               | 3            | 2            | 5          | Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact including limited emergency access   |
| 2.2 Traffic                                   | 3                      | 3            | 1            | 4               | 4            | 2            | 5          | No impact on traffic patterns; some impact; significant impact  |
| <b>3. SITE FEATURES</b>                       | <b>13</b>              | <b>19</b>    | <b>19</b>    | <b>6</b>        | <b>12</b>    | <b>17</b>    | <b>20</b>  |   |
| 3.1 Adequate site size                        | 2                      | 6            | 6            | 1               | 2            | 6            | 6          | Optimum size - allows for expansion; good size but no expansion capability; undersized for full program   |
| 3.2 Existing Structures/Historic Preservation | 4                      | 4            | 3            | 2               | 3            | 1            | 4          | Existing structures will not impede development ; some impact on intended use; full impact  |
| 3.3 Operations - ease of use                  | 4                      | 4            | 4            | 3               | 4            | 4            | 4          | Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively   |
| 3.4 Flexibility/Circulation                   | 3                      | 5            | 6            | 0               | 3            | 6            | 6          | Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility   |
| <b>4. ENVIRONMENTAL</b>                       | <b>12</b>              | <b>7</b>     | <b>7</b>     | <b>9</b>        | <b>8</b>     | <b>5</b>     | <b>15</b>  |   |
| 4.1 Wetlands                                  | 4                      | 3            | 3            | 1               | 1            | 3            | 4          | No wetlands or all work will occur outside of ConCom jurisdiction; indirect impact (work in buffer zones); direct impact on existing wetlands, flood plains, endangered species   |
| 4.2 Stormwater Management                     | 4                      | 3            | 1            | 2               | 1            | 1            | 5          | Reasonable cost for stormwater management; moderate costs; excessive costs  |
| 4.3 Conservation/DEP Permitting               | 4                      | 1            | 1            | 4               | 4            | 1            | 4          | No work within designated vernal pool and/or rare species habitat; normal permitting process; work within vernal pool and/or rare species habitat   |
| 4.4 Existing Tree Cover                       | 0                      | 0            | 2            | 2               | 2            | 0            | 2          | No major reduction; minimum to moderate clearing; major clearing  |
| <b>5. SITE DEVELOPMENT</b>                    | <b>14</b>              | <b>17</b>    | <b>14</b>    | <b>9</b>        | <b>10</b>    | <b>14</b>    | <b>20</b>  |   |
| 5.1 Utilities                                 | 4                      | 4            | 2            | 4               | 4            | 2            | 4          | Availability of gas, electricity, water, municipal sewage, storm drainage; some utilities need to be brought on site; most utilities need to be brought on site   |
| 5.2 Topography                                | 1                      | 3            | 4            | 3               | 3            | 3            | 4          | Slopes range: % to %; appropriate for buildings parking - full access; some revisions to meet needs; significant access issues  |
| 5.3 Soils                                     | 4                      | 3            | 3            | 0               | 2            | 2            | 4          | Adequate for bearing capacity; non-standard foundations required  |
| 5.4 Hazardous Materials                       | 4                      | 4            | 3            | 1               | 0            | 4            | 4          | Free of known contaminants; testing required; site history of contaminants  |
| 5.5 Costs of Development                      | 1                      | 3            | 2            | 1               | 1            | 3            | 4          | Reasonable costs for development; moderate costs; excessive costs (cut/fill, clearing, blasting; renovation vs new)   |
| <b>6. AVAILABILITY</b>                        | <b>8</b>               | <b>8</b>     | <b>11</b>    | <b>9</b>        | <b>8</b>     | <b>8</b>     | <b>15</b>  |   |
| 6.1 Jurisdictional Control                    | 1                      | 1            | 3            | 3               | 3            | 1            | 5          | Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner; change of jurisdictional control or use requires state legislative or agency approval |
| 6.2 Displacement Required                     | 4                      | 4            | 3            | 1               | 1            | 4            | 5          | Cost of relocation minimal; moderate; excessive   |
| 6.3 Acquisition                               | 3                      | 3            | 5            | 5               | 4            | 3            | 5          | Cost, availability, time schedule, eminent domain; Reasonable costs, available for sale at this time; Costs high but available to meet schedule; Cost high with eminent domain  |
| <b>TOTAL</b>                                  | <b>65</b>              | <b>67</b>    | <b>64</b>    | <b>54</b>       | <b>59</b>    | <b>59</b>    | <b>100</b> |   |
| <b>7. SPECIAL CONSIDERATIONS</b>              |                        |              |              |                 |              |              |            |   |
| 7.1 Temporary buildings                       |                        |              |              |                 |              |              |            | Costs to temporarily house intended use minimal; moderate; excessive  |
| 7.2 Permanent changes to use                  |                        |              |              |                 |              |              |            | Change in use relatively simple; requires return to state for review, redistricting; loss of traditional use  |
| 7.3 Temporary use of site                     |                        |              |              |                 |              |              |            | Additions benefit traditional use; additions reduce traditional use; temporary elimination of traditional use   |
| 7.4 Time Schedule                             |                        |              |              |                 |              |              |            | Impact of Delay   |



**INTRODUCTION TO PLANNING OPTIONS /  
RECOMMENDATIONS**

Potential preferred options to meet the programmatic needs documented during the programming / planning sessions and identified in the “Needs Assessment / Planning / Programming” portion of this volume are presented on the following pages. These generally follow the two Scenario Options described in the Executive Summary. The options include the following:

**Schools and School Administration**

- Temporary School at DeFazio Park
- Hillside School Rebuild
- Permanent School at DeFazio Park (Scenario 2)
- High Rock School Renovation back into an Elementary School (Scenario 2)
- Needham High School Renovations and Pre-fab Classrooms
- Mitchell School Rebuild
- Pollard Middle School – Additions and Renovations
- School Department Central Administration – Relocation to PSAB

**Department of Public Works**

- Department of Public Works Relocated to Parcel 74 (Greendale Avenue)
- Recycling and Transfer Station (RTS) Renovations

**Police and Fire**

- Stand-Alone Police Station / Fire Station at Existing Site
- Fire Station #2

**Recreation**

- Rosemary Pool
- Cricket Field Building
- Memorial Park Building
- Community Center at Nike Site
- Community Center at Ridge Hill Reservation and Shared Use of Nike Site (Alternate)
- Ice Rink at Dedham Avenue
- Ice Rink at Town Forest (Alternate)

**METHODOLOGY**

Options were developed and evaluated based on the following approach:

**Site Selection:** The Matrix ranked only realistic sites and conceptual options were developed for several of the highest ranked sites. On the site designated for the Police / Fire Departments multiple options were considered for that singular site.

**Site Plans:** Conceptual plans showing building placement, parking and roadways were developed as needed.

**Building Plans:** Conceptual floor plans were prepared based on the programs developed. These plans tested whether the site was appropriate for the described needs and operations of the department.

**Probable Cost Estimates:** Probable Total Project costs for each project were identified. The Current Costs are shown in 2014 dollars. Buildings were estimated on a square foot basis as no detail plans were generated. The sites were estimated as a percentage of construction. Premium costs for each site were developed to cover unique features of the site or program such as special materials, site improvements to respond to neighborhood concerns, special fencing or even green roofs.

Total Project Costs included the Cost for Construction plus 25% Soft Costs and 10% Project Contingency.

Escalation Costs were projected out for 10 years and were based on the Total Project Costs generated for each project. Escalation values were 6% for years 2015 and 2016 and 3.8% for the remaining eight years. Escalation factors were selected based on constant review of market trends, experience, qualifications and best judgment, and in consultation with Town professional staff.

**Timelines:** Preliminary Master Plan Timelines were established to document Projected Occupancy Dates, Design to Occupancy Timelines, and Costs to Mid-Point of Construction.

**Presentation of Options:** All potential options were presented to the FWG for their consideration and comment. Pros and Cons were discussed and preferences were made. The input of the end-user was critical at this juncture and their individual preferences and the reasoning behind their preference were important for all members of the FWG to hear.



Photo 53: Police Department - Interior



Photo 54: Police Department - Interior



Photo 55: Cricket Field - Storage

**PATHWAY 1 OVERVIEW**

Planning for appropriate school space has always been a priority for the Town. Seeking to provide equitable facilities across all schools has required significant renovation and new construction in the past. The School Committee has established goals to consider when planning each facility and those guidelines form the basis for all projects. In addition to meeting educational goals, all projects must meet building, energy and accessibility codes. The schools that are to be renovated or rebuilt include the Hillside and Mitchell Schools and the Pollard Middle School. Challenges of rebuilding at each site and the need to provide for a safe environment for the children and staff during construction have led to the options for development.

Comprehensive Facilities Assessments provided an independent evaluation of each building and prioritized a capital maintenance plan. The Town has partnered with the Massachusetts School Building Authority, who will financially support the design and construction of educationally appropriate, flexible, sustainable and cost effective facilities.

Two construction initiatives are underway to address the needs of the Town's oldest and most crowded schools: the Hillside School and the Mitchell School. The Hillside School is slated for construction first with the Mitchell School and then Pollard Middle School to follow. Modular classrooms were installed at the Mitchell School for the 2014-2015 school year to accommodate increased growth. The Town is working with the MSBA to define the preferred solution for the Hillside School.

**RECOMMENDATIONS**

Due to the complicated site at each school, the decision as to how to accommodate students during construction is critical first step. Prefeasibility studies have determined the following:

- Rebuild Hillside with a temporary school constructed at DeFazio Park as swing space, OR:
- Build a new facility at DeFazio Park

The temporary school, at a cost not reimbursable under MSBA guidelines, would provide all school programmed space, the possibility of a permanent gymnasium, parking and access to all the fields at the park during the rebuild of Hillside School, the Mitchell School and finally the Pollard Middle School. Other longer term renovation projects could also use this building as swing space and a permanent gymnasium would be an attractive future asset for this sports complex. The paved parking areas would also be a permanent improvement to the site.

Building a school at DeFazio Park does require a rebuilding of all of the functions of the DPW currently located at this portion of the Dedham Avenue site as a minimum. The need to upgrade and reconstruct the DPW exists independent of the construction of a school facility. Finally, whether or not an elementary school and the DPW can reside on this shared site, with crossing vehicular / bus and pedestrian circulation patterns, is still a critical issue that will need to be resolved.



Figure 32: per Dore & Whittier Architects, Inc.

**TEMPORARY SCHOOL AT DEFAZIO PARK**

**Capacity: 500 students**

**Total Project Cost: \$20.1 M**

(Est. to Mid-Point of Const. in 2017)

**Description**

A temporary school for about 500 students includes all classrooms, administrative offices, support spaces, cafeteria and gymnasium spaces and is meant to function as a modern school building on par with any other Needham school for multiple years. Site work will include temporary shutdown of a baseball diamond, relocation of the tot lot, permanent parking and the possibility of a permanent gymnasium. This site is complicated by wetlands and the location of the DPW. Plans for this building require the relocation of an important portion of the DPW "yard" and circulation through the DPW area. Permits for work in riverfront buffer areas will be required as well as stormwater detention or infiltration systems. This site is also under the three different jurisdictions and will require a legal procedure of all three groups and a Town Meeting affirmative vote before proceeding with any detailed design.

**Summary of Issues: Pro and Con**

- Plan provides swing space for all remaining school projects
- Spaces can be designed to meet educational goals of School Department
- Gymnasium and associated support spaces will be an asset to Parks & Recreation in the future
- Permanent parking will be provided
- Stormwater management will be improved
- o Costs of complex is not reimbursable through MSBA
- o Disruption of traditional use of DeFazio Park
- o Changes to operations at the DPW
- o Co-existence with the DPW



Figure 33: per Dore & Whittier Architects, Inc.

**HILLSIDE SCHOOL REBUILD**

**Capacity: 420 students (current enrollment)**

**Total Project Cost: \$54.9 M**

(Est. to Mid-Point of Const. in 2019)

**Description**

A new Hillside School for between 400 and 500 students will meet the contemporary educational needs, requirements and spaces for the school population. Core areas such as the gymnasium, cafeteria and media center, specialty rooms for art, music and technology and administrative areas will meet standards set by the MSBA. Full day kindergarten is expected. The site, small but buildable, will require significant work to improve access and traffic congestion, improve conditions to eliminate flooding, and, after review with the MA-DEP, improve conditions on this monitored site.

**Summary of Issues: Pro and Cons**

- Neighborhood School is maintained
- Circulation pathways are improved
- Flooding is eliminated
- MA-DEP concerns are fully addressed
- Classroom and core spaces meet MSBA guidelines
- No redistricting as a result of rebuild
- Stormwater management will be improved
- o Costs of site work will be high to deal with high water table and previously contaminated site conditions
- o Requires temporary facilities
- o Site amenities will be limited due to restricted site



Figure 34: per Dore & Whittier Architects, Inc.

**MITCHELL SCHOOL REBUILD**

**Capacity: 477 students (current enrollment)**

**Total Project Cost: \$59.0 M**

(Est. to Mid-Point of Const. in 2021)

**Description**

A new Mitchell School for between 400 and 500 students will meet the contemporary educational needs, requirements and spaces for the school population. Core areas such as the gymnasium, cafeteria and media center, specialty rooms for art, music and technology and administrative areas will meet standards set by the MSBA. Full day kindergarten is expected. The site, larger and with less issues than Hillside can be reconfigured to address circulation and playfield concerns. Building on the existing playfields while students remain on site is possible but a significant challenge both logistically and with regards to safety of students and staff.

**Summary of Issues: Pro and Cons**

- Neighborhood School is maintained
- Circulation pathways are improved
- Classroom and core spaces meet MSBA guidelines
- No redistricting
- o Requires temporary facilities

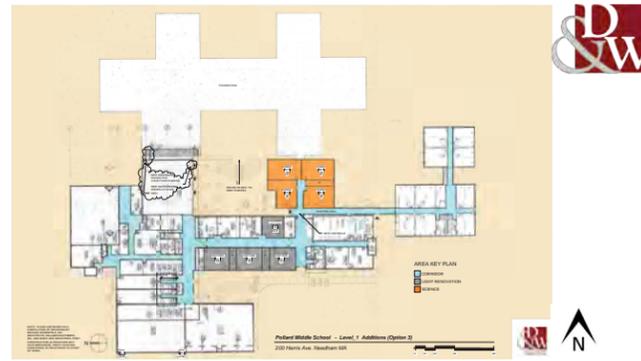


Figure 35: per Dore & Whittier Architects, Inc.

**POLLARD ADDITION + RENOVATIONS**

**Capacity: 880 students**

**Total Project Cost: \$44.3 M**

(Est. to Mid-Point of Constr. in 2024)

**Description**

An addition to and renovations of the Pollard Middle School will provide upgraded science classrooms and support spaces, administrative areas located in an area that is better suited to control access to the school building, an improved auditorium, upgrades to meet current ADA and MAAB requirements and new building systems.

**Summary of Issues: Pro and Cons**

- Plan addresses educational deficiencies for middle school students
- An addition reduces impact of construction on some portion of the building
- Provides long term solution
- New classroom and core spaces meet MSBA guidelines
- Auditorium is improved
- o Requires some temporary facilities
- o Requires egress improvements from courtyard spaces

**PATHWAY 2 OVERVIEW**

As part of the decision process to accommodate students during construction of the three schools that need to be rebuilt or renovated, a second option under consideration is to build a new and permanent school at DeFazio Park. This option would require redistricting.

**RECOMMENDATIONS**

The Town and School Committee will work with the Massachusetts School Building Authority to study and analyze options available under this pathway.

These include the following:

- New Elementary School at DeFazio Park and other viable sites
- New 6th Grade Center at DeFazio Park and other viable sites and assessment of minor renovations / additions to High Rock

If this new school houses the 6th grade Center it would reunite the middle school cohort at contiguous properties. The synergies in this arrangement are clear.

Following the occupancy of this building as a 6th grade center, the High Rock School would undergo renovations and any necessary additions required to turn this building back into an elementary school. The Hillside School would not be demolished at this time but would then become swing space for subsequent projects such as Mitchell School, Pollard Middle School and potentially other municipal projects.

Building a new school at DeFazio Park would eliminate the construction of temporary school structure, a goal of the School Committee, as temporary structures are not reimbursable under current guidelines. Building a new school entails considerations such as needed additional construction laydown space and thus would impact operation of the sport complex at DeFazio Park. As in the temporary school option, the location of a school at this site affects both the current and future operations of the DPW.



Figure 36: per Dore & Whittier Architects, Inc.

**PERMANENT SCHOOL AT DEFAZIO PARK**

**Capacity: Approximately 440 students**

**Total Project Cost: \$58.1 M**

(Est. to Mid-Point of Const. in 2018)

**Description**

A permanent school for approximately 440 elementary or grade 6 students includes all classrooms, administrative offices, support spaces, cafeteria and gymnasium spaces required for a modern school building. Site work for this structure is the same as for a temporary school and will include temporary shutdown of a baseball diamond, relocation of the tot lot and permanent parking. This site is complicated by wetlands and the location of the DPW. Plans for this building also require the relocation of an important portion of the DPW "yard" and circulation through the DPW area. Permits for work in riverfront buffer areas will be required as well as stormwater detention or infiltration systems. This site is also under the three different jurisdictions and may require a jurisdictional transfer and a Town Meeting affirmative vote before proceeding with any detailed design. All three jurisdictions have agreed to study DeFazio Park as part of the Hillside Feasibility Study.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to school needs
- Spaces can be designed to meet educational goals of School Department
- Permanent parking will be provided
- Stormwater management will be improved
- o Redistricting is required
- o Disruption of traditional use of DeFazio Park
- o Changes to operations at the DPW
- o Co-existence with the DPW



Figure 37

**HIGH ROCK ADDITION / RENOVATION INTO ELEMENTARY SCHOOL IF REQUIRED**

**Capacity: 450 students (current enrollment)**

**Total Project Cost: \$4.4 M**

(Est. to Mid-Point of Const. in 2019)

**Description**

With the construction of a permanent 6th grade center at DeFazio Park and redistricting, the High Rock School would be renovated and added onto in order to meet the needs of an elementary school. Work previously completed to create the 6th grade center may need some revision and a comprehensive review of the entire school will be completed to assess what other issues will need to be addressed.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to school needs
- Spaces can be designed to meet educational goals of School Department
- o Redistricting is required
- o New work will need to augment work completed during the most recent renovation and addition

**OVERVIEW - SCHOOLS (CONTINUED)**

Needham High School was designed, under MSBA programming guidelines, for 1,450 students with the ability to accommodate 1,600 for short peak durations to accommodate a “bubble” of students. The projection for occupancy is over 1,700 students for the coming decade as the student population has exceeded projections from 2004.

The School Department Central Administration offices at Emery Grover are located in a prime downtown location easily accessed by the community. However, this building does not fully support the needs of this department and has long been in need of renovations to address deficiencies. The building is not accessible, includes inaccessible space, has office and meeting rooms that are undersized and would benefit from a more efficient layout, and has building systems that are antiquated. The department would be better served by providing a centralized location for all staff under one roof. Parking for staff, visitors and training sessions / large meetings of school staffs cannot be met at this site in its current configuration.

**RECOMMENDATIONS**

Current planning at Needham High School is to reconfigure existing classroom space as a short term solution. A more long term solution is under consideration, the construction of permanent pre-fab classrooms and an expanded cafeteria. These additional classrooms and cafeteria space is expected to meet student and program needs.

The solution to the School Department Central Administration issues includes many options. Though a business office could be located anywhere in Town, the preference is for a space centrally located and / or easily accessed by the Community. Various options were considered in the past and remain as viable options. At this time however, the FWG has indicated that if a consolidated DPW is relocated from its historical home at Dedham Avenue the Public Services Administration Building could become the new home for School Administration. This recently constructed building would require some minor renovations to accommodate the programmed space that has been defined in a previous study, but the overall envelope and building systems could easily accommodate the defined needs. In addition, the old Water Pump Station would also become available and this building could be renovated to serve as a large meeting / training / conference space primarily assigned to the School Department but available for Community use after hours. A physical connection to this building from PSAB would be explored.



Figure 38: per Drummey Rosane Anderson, Inc.

**HIGH SCHOOL RENOVATION AND PRE-FABRICATED / MODULAR CLASSROOMS**

**Capacity: 1,700+ students**

**Total Project Cost: \$4.7 M** (Est. to Mid-Point of Construction 2016)

**Description**

A permanent solution to the increased enrollment at Needham High School must be addressed prior to that population arriving on site. Classroom space will be required as well as an enlarged cafeteria and serving areas to make certain space is adequate, and more importantly, safe should an emergency occur. The current building is fully utilized and the solution will require creativity and a change in use to some existing spaces.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to school needs
- o New work is required and will change the use of some areas of the school



Figure 39

**SCHOOL ADMIN.: RELOCATION TO PSAB**

**Renovation of PSAB, Pump Station Building, Additional Parking, Demolition of DPW and Site Clean-Up**

**Total Project Cost: \$6,202,044 to \$6,437,722** (Est. to Mid-Point of Construction in 2018 or 2019)

**Light Renovations: \$1,779,543 to \$1,847,165**

**Pump Station Renovation: \$1,761,810 to \$1,828,758**

**Demolish DPW and Site Clean-Up: \$1,728,306 to \$1,793,981**

**Additional Parking: \$932,386 to \$967,817**

**Description**

The proposed solution, relocation to PSAB, can only occur if the DPW is permanently relocated off site. The PSAB also is home to other departments who have natural connections to the DPW but can exist independently. A consolidated approach would relocate those departments. This building will need some internal changes to address the needs of a school department but the infrastructure and amenities already in place will make this a minor renovation project. The old Water Pump Building can be restored as a singular room with lobby, toilet and support spaces and used by the school department daily or by the Community off-hours.

**Summary of Issues: Pro and Con**

- Existing building is modern and efficient and sized to meet department needs
- Water Pump Building would provide a dual use facility for the Town
- Parking needs and improved site amenities for sports field can be met after demolition of existing structures
- o Site is further away from downtown area but is not located in an isolated area of Town
- o Minor renovations are required at PSAB and a major renovation to Water Pump Station

**OVERVIEW - DPW**

The Department of Public Works has occupied this site on Dedham Avenue for more than 50 years. The Hollis Building, the primary building for the Operations division, has not had any significant renovation during that period. The second floor of the building is not accessible and has indoor air quality issues related to the maintenance areas located below. Employee spaces such as toilet and lunchrooms are located in this building.

A new building was constructed on site to accommodate all the administrative functions that formerly occupied the second level. That structure, the PSAB, includes related Town departments. Suites for the Building Inspector, the Public Facilities – Operations & Construction, The Planning, Community Development, Conservation Commissions, & ZBA and Parks & Recreation are located on the first floor. The DPW Administrative and Engineering departments are located on the second floor. The interaction between these departments on a daily basis is significant.

Other buildings and structures on site include the former Water Pump Station, currently used by DPW staff, the fuel depot, the old salt shed which is used for storage, various cold storage structures for equipment and materials and a new pre-engineered metal buildings for vehicles. This building was constructed to cover vehicles and equipment, and control water runoff into the wetlands and Alder Brook. More than 47,000 square feet of DPW program is currently located off site due to the limited area at Dedham Avenue.

The deficiencies of the buildings are significant:

- Employee locker rooms, toilets and lunchrooms are lacking
- Stairs and egress paths do not meet code
- There is no fire suppression system
- There are no seismic restraints
- The vehicle storage space is undersized for vehicles and associated equipment
- There are too few maintenance bays and shops, and storage areas for parts, fluids and supplies are undersized

The existing structure cannot easily be renovated to meet the needs of the department and even incremental improvements will trigger expensive code mandated retrofits. The site has high groundwater issues and solutions to the NPDES rules and requirements, to cover or treat water runoff, are difficult and costly. In the near future, some action by the Town will be required to address these issues. The site, with the surrounding wetlands and changes in elevation, is not large enough to accommodate the needs of the DPW within its current footprint. The deficiencies of building and site need to be addressed in the near future. Finally, a temporary or permanent school will impact any decision concerning the DPW.

**RECOMMENDATIONS**

Options under consideration all include consolidation of the Department at either the Dedham Avenue site or a new site. The only way to stay on site would be if a school is not located at DeFazio Park. Accommodating the needs of DPW would require expansion into the gravel parking area. With or without a school, this move, further into DeFazio Park and the scattered organization of buildings, is not desirable.

The preferred solution is a new and fully consolidated department at Parcel 74 on Greendale Avenue. This site does support the needs of the department and though located in a residential neighborhood the significant changes in elevation can be used to the advantage of the building. Working yards and roadways would primarily be located at the lowest possible elevation and out of sight of the majority of the residents. The only portion of the building entirely visible would be the upper levels of the administration building which would be more office-like in appearance, which can be treated in a very sensitive manner.

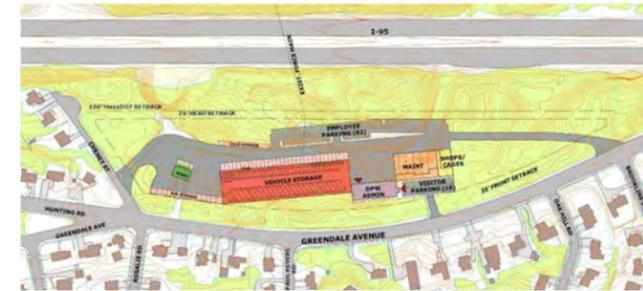


Figure 40

**DEPARTMENT OF PUBLIC WORKS AT PARCEL 74**

**New Construction**

**Total Project Cost: \$48.2 M to \$50 M** (Est. to Mid-Point of Const. in 2017 or 2018)

**New Construction: 92,442 SF**

**Description**

The existing DPW buildings, except for the PSAB building and the new vehicle storage building, no longer support this department. Renovations are extremely costly and will not result in a modern facility that will serve the Town for many years to come. Space is restricted and the possibility of a school on site complicates the situation. A new building on Parcel 74 will allow for a consolidated department, bringing together all of the operational programmatic and storage needs at one location. Although some dedicated field equipment may continue to reside at a park, all needs of this department are addressed at once. This building will enhance operations and protect valuable equipment.

**Summary of Issues: Pro and Con**

- Plan is comprehensive and addresses all indoor and outdoor programming needs including wash bay & fuel depot
- Site can be configured to shield neighborhood from “yard” work
- Consolidation improves work flow and supervision
- Greendale Avenue is sized to handle traffic and a traffic light will be considered to improve morning flow of cars through neighborhood. The Add-a-Lane project will also help the traffic volume.
- Phasing or temporary occupancy not required
- o More trucks will enter neighborhood and project may be resisted
- o Jurisdictional change required
- o Undeveloped site may add costs but elevation changes, and no ledge, can work to projects benefit



Figure 41

**RECYCLING AND TRANSFER STATION**

**Addition / New Construction**

**Total Project Cost: \$4.6 M**

**Total Project Costs: \$1,623,000** (Estimate in 2014)

**Description**

This site will need updates and renovations based on its rugged use of buildings and roadways. The tipping floor and finishes will need to be replaced and office space and employee support spaces lack any and all amenities. A new building to handle the needs of these employees is warranted and demolition of trailers and other spaces that currently house these spaces will free up some land for future consideration. A materials handling area, would be located on the adjacent 12 acres.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to RTS building and site needs
- o Work in 12 acres is not ideal as site has significant ledge and topographic changes

**OVERVIEW - PUBLIC SAFETY**

The headquarters for the Fire and Police Departments is located in a prime downtown location well suited to respond to emergency calls throughout Town and easily accessed by residents. A second Fire Station is also well located on Highland Avenue and responds to that area of Needham as well as the area of Town located east of Route 95. The existing main structure has been modified over the years to respond to the expanding needs of the community. However, these two departments, who jointly respond to emergency needs, and spend parts of each day working together on issues that affect the community, occupy spaces that are undersized and poorly organized. Spaces that are designated for the storage of valuable vehicles and equipment were designed in an era of smaller trucks with little specialized equipment. The building lacks a police sallyport which provides for safe transfer of a detainee from a vehicle, to holding, to the booking area and to a cell block. Currently, that detainee must be moved across a public parking area, which is not safe for the officer, detainee or visitor to the station.

This building is not fully accessible and building systems are past their prime.

**RECOMMENDATIONS**

Various options were considered including addition and renovation or a stand-alone structure with or without a parking garage or another office building.

The stand-alone structure, without additional buildings, was selected as the most desirable solution. The site, recently enlarged and upgraded with the addition of the surrounding properties, can easily handle the requirements of these departments. The new structure would be built in two phases to allow fire apparatus to continually operate from this location during construction. It would also:

- Combine dispatch and lobbies for both department allowing for a single entry point and controlling movement around the building
- Provide appropriately sized and located Emergency Operations Center, training, storage and a Wellness Center
- Provide appropriately sized fire apparatus bays
- Provide a sallyport and related detention spaces
- Provide administration and support spaces for command staff and officers
- Continue to operate from this prime location with FD egress directly onto Chestnut Street
- Strengthen the corner of School and Chestnut Streets with an important civic structure

Fire Station #2 also will require renovations to the envelope and interior to allow this building to serve this part of Needham for many years to come. This site can also support a small addition at the rear of the site if needs arise.

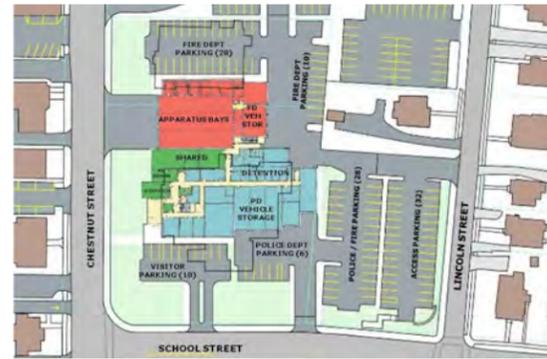


Figure 42

**STAND-ALONE POLICE STATION / FIRE STATION AT EXISTING SITE**

**New Construction**

**Total Project Cost: \$37.8 M** (Est. to Mid-Point of Const. in 2019)

**Description**

A new stand-alone structure with associated site amenities can be constructed on the existing site. Phasing will be required but the construction of the apparatus bays just north of the existing building will be completed first and apparatus can continue to respond from this site throughout the construction period. Other temporary facilities, either in other Town buildings, or tents and trailers will be required after demolition of the existing building. The site is not configured to build the entire structure and then demolish the existing building. This new building will right size all spaces, particular those that house vehicles and equipment, and will provide shared spaces that will enhance and improve day to day operations for both departments as well as emergency operations.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to both departments needs
- Shared spaces and systems
- Apparatus bays exiting onto Chestnut Street is preferred location
- New shared entry at intersection of Chestnut and School Streets provides an opportunity to enhance this prominent corner site with a significant civic structure
- Newly constructed parking remains
- o Project must be phased to address Fire Department apparatus response times



Figure 43

**FIRE STATION #2: RENOVATION / ADDITION**

**Renovation / Addition**

**Total Project Cost: \$1.5 M** (Est. to Mid-Point of Constr. in 2014)

**Description**

Work at this building is necessary to maintain the structure. New roofs and flashing, replacement/repair of the cupola, repointing of brickwork, replacement of doors and windows and upgrades to systems will extend the useful life of this structure for many years. Should an addition be required to store vehicles or equipment a small structure can be attached at the lowest level.

**Summary of Issues: Pro and Con**

- Most work is external and can be phased
- Spaces can be improved without major redesign
- Site supports a small addition

**OVERVIEW - RECREATION**

The Town of Needham has many parks, playfields and buildings that support the recreational needs of Town residents. Conservation land, a forest, walking trails, a lake with a pool, play structures and playfields dedicated to team sports, are located throughout the Town. As school buildings are constructed, spaces that can be used by the community during off-hours times are planned for continual use if at all possible. Some of the properties have restricted use and some buildings dedicated to recreation use are currently also used by the DPW to store equipment and materials used at those sites for maintenance or for out of season storage of vehicles.

Recreational programs for children and adults require the continued and enhanced use of these properties. The Town supports these needs and continues to upgrade existing structures but also recognizes that some of these needs can be met through Public / Private Partnerships.

**RECOMMENDATIONS**

Rosemary Pool will require the replacement of the pool structure within the next few years or the permit to operate will expire. Options have included everything from decommissioning of the pool to full replacement of the pool as a four season complex. The recommended pathway is for replacement of the pool and upgrades to both the bathhouse and the surrounding parking and pathways.

Cricket Field Building will be renovated and made accessible and continue as a summer-use structure.

Memorial Park Building currently is used by the teams that use the playfields and for meetings of many team sports coaches and directors. Its concession stand and public bathrooms are available to the attendees at sports events. The DPW use the garages for storage of equipment and materials used at parks and fields and to do short term out-of-season small projects. Two options have been discussed to address the most important deficiency of this building: accessibility. One option would provide a new elevator and stair and upgrades to the original stair to provide code required access and egress. The second option demolishes the structure and builds a new building that addresses all of the programmatic needs identified including the possibility of a teen center.

The Community Center is a building that would provide an indoor swimming pool, gymnasium, running track, exercise rooms, teen room and community meeting room. This kind of program currently does not exist in Town and will be a challenge to garner public support for when other town needs are so significant, but it is an excellent program for a Public / Private Partnership.

The Ice Rink is another facility that currently does not exist in Town but would enhance recreational opportunities for children, teams and adults. This facility would not easily win support in Town at this time, but is another potential program for a Public / Private Partnership.



Figure 44

**ROSEMARY POOL**

**Renovation**

**Total Project Cost: \$10.2 M** (Estimate to Mid-Point of Construction in 2018)

**Description**

Though the final decision on the level of renovations has not yet been made, the Town is committed to maintaining the pool in its current configuration and updating the pool house, parking areas and pathways to provide full access.

**Summary of Issues: Pro and Con**

- Rosemary Pool and related site issues will be completed in time to prevent expiration of permit to operate
- Enhanced bathhouse
- The site and building will be accessible



Figure 45

**CRICKET FIELD BUILDING RENOVATIONS**

**Renovations**

**Total Project Cost: \$1.0 M** (Estimate to Mid-Point of Construction in 2015)

**Description**

Renovations to this building will stabilize and extend the use of this building. Improvements to access will allow full use by the Community.

**Summary of Issues: Pro and Con**

- Plan provides for stabilization of building envelope
- Stairs and porches will be repaired
- Bathrooms will be improved
- Interior spaces will be updated



Figure 46

**MEMORIAL PARK BUILDING**

**Renovation Alternative**

**Total Project Cost: \$1,007,046** (Estimate in 2014)

**Renovation: 7,260 SF**

**Description**

To address the concern of access and egress this plan provides a solution to both of these fundamental issues. Meeting space and offices on the second level will become accessible and egress from these spaces will be appropriate. General repairs and upgrades for the remaining spaces will refresh these areas.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to access and egress issues
- Construction of elevator and stair will not affect building use although entry to toilets will need to be reviewed
- All spaces will have general repairs to finishes

- o No new spaces are added to the program
- o Total renovation of spaces is not included



Figure 47

**MEMORIAL PARK BUILDING**

**New Building Alternative**

**Total Project Cost: \$5.9 M** (Estimate in 2014)

**New Construction: 14,584 SF**

**Description**

Another option under consideration is the demolition of the existing building and construction of a permanent and code compliant modern facility. This building would address all the need of the Memorial Park Trustees and may include a teen center which would address needs of children beyond those interested in sports. A Public / Private Partnership would help to move this project into a near future round of funding.

**Summary of Issues: Pro and Con**

- Plan provides permanent solution to building needs
- New spaces for visitor and home teams
- Improved concessions
- Updated public toilets
- Meeting rooms and offices located on upper level
- Possible teen center on upper level
- o Building will be raised before any new construction can take place
- o Construction will affect parking areas

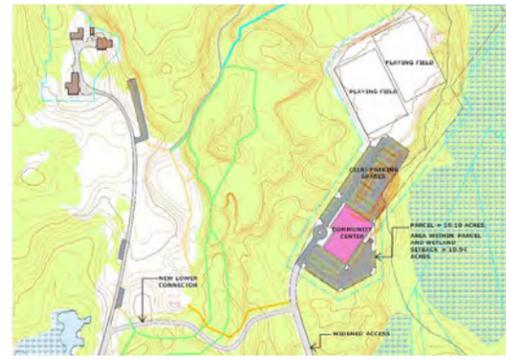


Figure 48

**COMMUNITY CENTER AT NIKE**

**New Building**

**Total Project Cost: \$28.9 M** (Estimate in 2014)

**New Construction: 62,000 SF**

**Description**

A new Community Center, located at the Nike site, could address the desire for new recreational and meeting space for citizens of all ages. The Nike site, located at the western end of Town and adjacent to hundreds of acres of conservation land with trails, would require car access but is a very practical use of this unusual site. No other municipal building is planned for this site at this time. The project would require a Public/ Private Partnership as the construction of this facility is not considered critical to the function of any Town department.

**Summary of Issues: Pro and Con**

- Site provides enough land for building, parking and playfields
- Use of this property for recreation purposes is in synergy with Ridge Hill
- o Public/ Private Partnership would be required
- o Jurisdictional issues will need to be resolved
- o Costs to enlarge roadways and bring in utilities will be costly
- o Neighborhood might be resistant to a building of this size and use
- o Relocate farm and dog park.

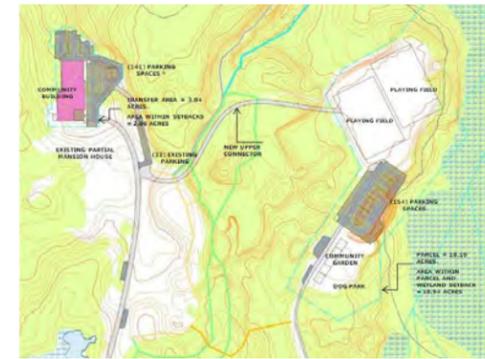


Figure 49

**COMMUNITY BUILDING AT RIDGE HILL + SHARED USE OF NIKE SITE**

**New Building and Possible Renovation**

**Total Project Cost: \$28.9 M** (Estimate in 2014)

**New Construction: 62,000 SF**

**Description**

A new Community Center, primarily located at the Ridge Hill with parking and fields located at the Nike site, could also address the desire for new recreational and meeting space. New structures and parking at the Ridge Hill site would be located within the 3.04 acres of land that currently encompass the house, garage and barn. Reuse of any of these structure is unknown at this time. A new road connecting this site to the Nike site would connect the facility and provide additional parking and playfields. In this option current uses of the site, a community garden and dog park, could be maintained though in a new location. This project would require a Public/ Private Partnership as the construction of this facility is not considered critical to the function of any Town department.

**Summary of Issues: Pro and Con**

- The two sites provides enough land for building, parking and playfields
- Re-use of this property has long been sought and no other realistic use of this site is currently envisioned
- A recreation building surrounded by conservation land is a good match
- o Jurisdictional issues will need to be resolved
- o The enlargement of roadways and bringing in utilities will be costly
- o Detailed study required for potential access roads
- o Neighborhood might be resistant to a building of this size and use
- o Existing buildings may not be reused



Figure 50

**ICE RINK AT 470 DEDHAM AVE.**

**New Building**

**Total Project Cost: \$11.9 M** (Estimate in 2014)

**New Construction: 35,272 SF**

**Description**

During visioning the request to include an indoor skating rink in this master plan was suggested. The building, sized for one rink capable of use by a high school team and club teams, is proposed. This building includes spectator seating, team rooms, concession and a lobby / ticket office. Parking is located nearby.

**Summary of Issues: Pro and Con**

- Plan provides adequate response to request
- New recreational building would enhance offerings of the Park & Recreation Department
- Needham teams would have home ice
- Building could be used year round dependent on appropriate programming
- o Jurisdictional issues will need to be resolved
- o Site work would need to meet all of the requirements set by the Conservation Department
- o A Public / Private Partnership will be necessary



Figure 51

### **ICE RINK AT TOWN FOREST**

#### **New Building**

**Total Project Cost: \$13.1 M** (Estimate in 2014)

**New Construction: 36,839 SF**

#### **Description**

Another location for an Ice rink is Town Forest. Again, there are natural synergies between these two recreational areas and parking for this building could augment the parking which is proposed for the rail trail.

#### **Summary of Issues: Pro and Con**

- Plan provides adequate response to request
- New recreational building would enhance offerings of the Park & Recreation Department
- Needham teams would have home ice
- Building could be used year round dependent on appropriate programming
- o Jurisdictional issues will need to be resolved
- o Site work would need to meet all of the requirements set by the Conservation Department
- o State legislature and Town Meeting approved required for repurposing Town Forest land
- o A Public / Private Partnership will be necessary