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## NEEDHAM FACILITIES MASTER PLAN STUDY



Municipal Resources, Inc.



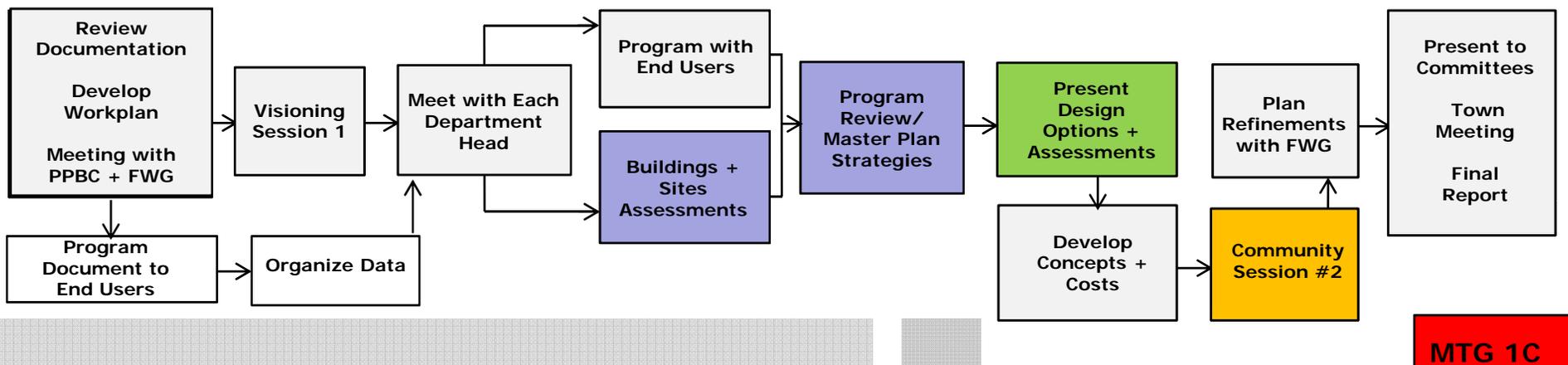
## AGENDA: FACILITY WORKING GROUP – MEETING #1C

- Schedule
- Overview of Chairs Meeting
- Alternate Sites for Future Buildings
- Criteria for Evaluating Sites
- Overview of Department Programs
  - Police and Fire Departments
  - Department of Public Works
- Community Meeting
- Next Steps



## PROGRAMMING/DESIGN OPTION PROCESS

- Programming Process nears completion
- Design Options for Fire/Police and DPW are ongoing
- Matrix for assessing sites is being developed
  - Committees to review initial criteria and assessment
- Develop Program/Master Plan strategies with FWG
- Community Session: April 22, 2014



## FWG SCHEDULE + OBJECTIVES

- April + May Mtgs. 1C + 1D: Final programming, design options + Site Matrix
  - Programming finalized; Design Options Developed
  - Matrix assessed and finalized
  - FWG comments on programming, concepts and approach

TASK:

Months	December	January	February	March	April	May	June	July	August	September	October	November
Collect documentation, workplan + schedule												
Analyze Documents												
Meeting with FWG		1	1A	1B	1C	1D	1E	1F	1G	1H		
Visioning Session			2		2A							
PPBC Meetings	3				3A		3B			3C		
Selectman Meetings				4			4A			4B		
Programming: Site Assessments		5A	5B	5C	5D							
Programming Review												
Design Options + Assessments												
Plan Refinements												
Presentations to FWG + Committees; Coordinate capital project funding												
Final Report + Town Meeting												

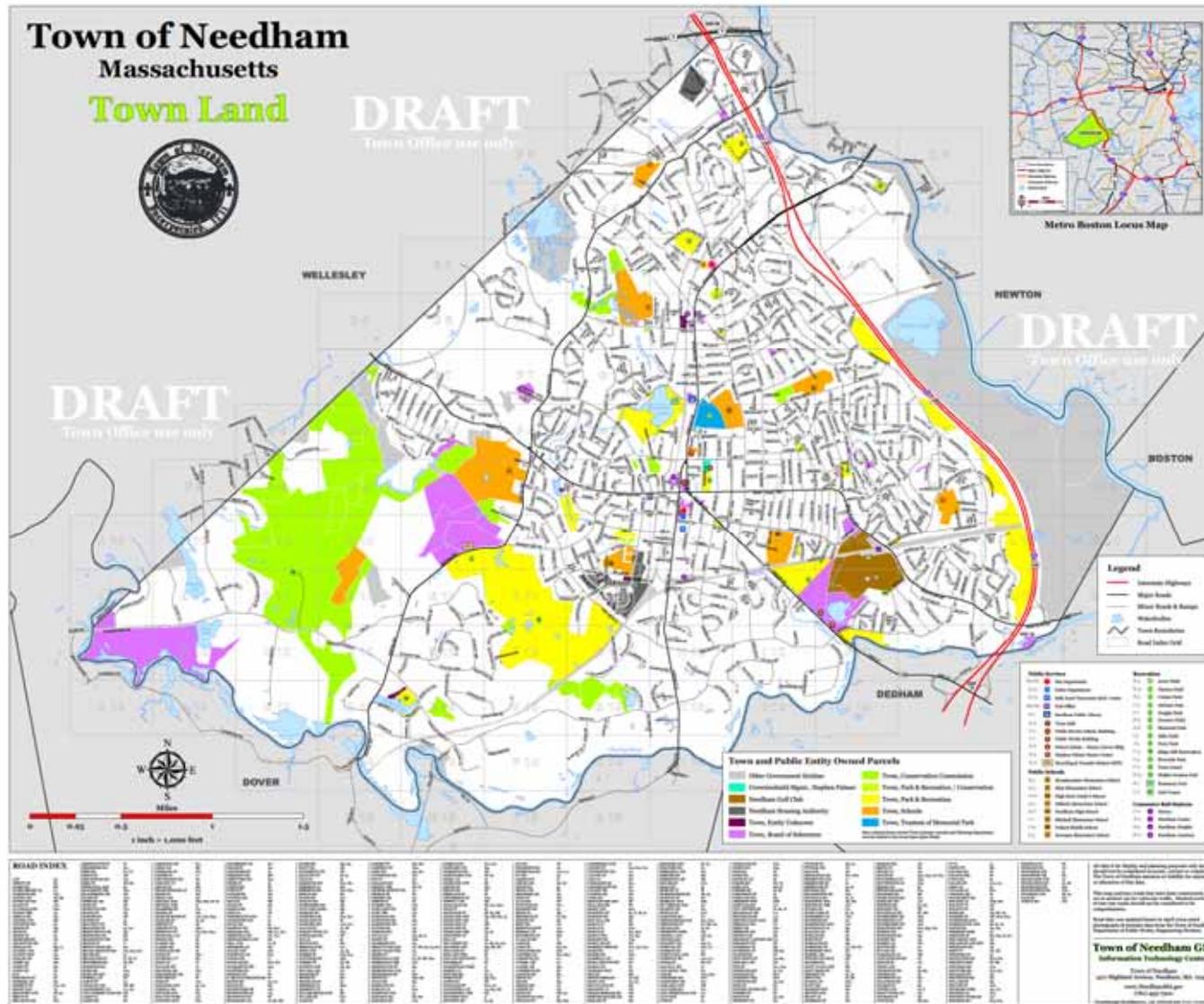
## **OVERVIEW OF CHAIRS MEETING: Review of Master Plan Work**

- Discussion on School Projects
  - Temporary School(s) location
  - Neighborhood Schools
  - MSBA involvement
- Ridge Hill and Nike Sites
  - Passive use versus active use; what are long term possibilities
  - Possible land swap; properties could be a more functional part of Town
- Public has the right to know how their land can/should be used
- Look at the best way of using what land the Town owns regardless of jurisdictional control
  - Master Plan should evaluate the best site for each project using opportunities and constraints
  - What land could be used to construct buildings: Town Forest, Parcel 74, Nike, DeFazio Park

**ALTERNATIVE SITES FOR BUILDING PROJECTS:** *Look at the best way of using land resources regardless of Jurisdictional Control*

- 3 matrices to evaluate: Overall Options, Detail Site, Evaluation Criteria
  - Which sites are reasonable to explore
  - What are the general characteristics of the sites
  - What is the criteria for assessing each site
- Domino Affect competing to be prioritized
  - Evaluation Criteria may suggest that multiple sites can meet needs
  - Are possible land swaps, "Trading" Jurisdictional Control, acceptable to each user
  - If re-organization occurs, how does it affect neighborhood schools, emergency response, conversion of a passive recreation site, historical use of property, neighborhoods in general, operations of department, reuse of property
  - Ideal operations: can needs be met on one site, in the best possible location, in order to meet the request of each department

# TOWN LAND MAP



# MATRIX: Overall Options

Needham Facilities Master Plan

Preliminary Matrix

		PROJECTS IN MASTER PLAN																
		Police + Fire #1	Fire Station #2	DPW: 470 Hollis 486 Pump Station RTS Various	Hillside Perm	Hillside Temp	Mitchell Perm	Mitchell Temp	Pollard Perm	Pollard Temp	High School	School Admin at Emery Grover	Daley Building	Nike Site	Rosemary Pool + Building	Cricket Field Building	Community Center	Ridge Hill Buildings
POSSIBLE SITES	Police + Fire #1 Site	•																
	Fire #2 Site		•															
	Lester Hollis Public Works 470 Dedham Ave. Site			•														
	Former Water Pumping Station - 486 Dedham Site			•														
	Public Service Admin Bldg. RTS - entire site			•														
	Defazio Site adjacent to DPW				•	•		•		•								
	Hillside Elementary Site				•													
	Mitchell Elementary Site						•											
	Pollard Middle School								•									
	High School										•							
	Public Schools Admin - Emery Grover Building											•						
	Daley Building Site												•					
	Ridge Hill Buildings/Site																	•
	Nike Site														•			
	Rosemary Pool + Building Site															•		
	Cricket Field Building																•	
	Claxton Field Site																	
	Greendale Ave Site																	
	Additional land already acquired at PD/FD	•																
	Harris, Great Plain Aves. Site																	
	Town Hall																	
	Town Forest																	
	Future acquired land/Other																	

• Primary location  
  Sites noted during visioning session or through programming conversations

# MATRIX: Overall Options

Needham Facilities Master Plan

Preliminary Matrix

	PROJECTS IN MASTER PLAN																	
	Police + Fire #1	Fire Station #2	DPW: 470 - 486 - RTS - Various	Hillside Perm	Hillside Temp	Mitchell Perm	Mitchell Temp	Pollard Perm	Pollard Temp	6th Grade Center	High School	School Admin at Emery Grover	Daley Building	Nike Site (New Program?)	Rosemary Pool + Building	Cricket Field Building	Community Center/YMCA	Ridge Hill Bldgs + Site (New Program?)
<b>DRAFT</b>																		
Police + Fire #1 Site	●																	
Fire #2 Site		●																
Lester Hollis Public Works 470 Dedham Ave. Site			●											?			★	
Former Water Pumping Station - 486 Dedham Site			●											?			★	
Public Service Admin Bldg.			●									★		?				
RTS - entire site			★															
Defazio Parking Lot			★	●	★		★		★	★							★	
Hillside Elementary Site				●								★						
Mitchell Elementary Site						●												
Pollard Middle School								●										
High Rock School				R						●								
High School											●							
Public Schools Admin - Emery Grover Building												●		?				
Daley Building Site													●					
Ridge Hill Buildings/Site													●				★	●
Nike Site			★											●			★	
Rosemary Pool + Building Site														?	●		★	?
Cricket Field Building																●		
Claxton Field Site																		
Memorial Field Building																	★	
Greendale Ave Site			★														★	
Additional land already acquired at PD/FD	●											★						
Harris, Great Plain Aves. Site																	★	
Town Hall														?				
Town Forest			★															
Future Aquired Land/Other																		

POSSIBLE SITES

- Primary location
- Primary Location - No change
- R Repurposed Site
- Grey Sites noted during visioning session or through programming conversations
- ★ Possible new sites

# NEEDHAM FACILITIES MASTER PLAN STUDY

## MATRIX: Details of Site

**DRAFT**

TOWN SITES	Site and location	HBL	Address or Location	Acres		Existing Bldg Area	Existing Bldg Floors	Zoning Consistency	Jurisdictional Owner	Existing Use	Wet-lands	Topo / Geology	Restrictions	Other
				Total	Constructability									
<b>Harris &amp; Great Plain Avenues</b>														
				31-05		13.44			Board of Selectmen		Yes			
<b>RTS</b>														
	78.96 acres	308-1	N.E. of RTS			6			Board of Selectmen		Yes			
		308-2				22			Board of Selectmen	Recycling and transfer station	Yes			
		308-3				6.26			Board of Selectmen		Yes			
		308-11				17.13			Board of Selectmen		Yes			
		308-12				27.55			Board of Selectmen		Yes			
<b>DPW Hollis Building</b>														
		302-5	470 Dedham Ave - Hollis Building			12.7			Board of Selectmen	Public Works / Recreation	Yes			
<b>DPW Water Pumping Station</b>														
		302-4	486 Dedham Ave - Water Pumping Station			1.05			Board of Selectmen	Public Works	Yes			
<b>DPW PSAB</b>														
		302-3	500 Dedham Ave - PSAB			2.47			Board of Selectmen	Public Works	Yes			
<b>Police and Fire Department Site</b>														
	4.16 acres	47-56				1.04			Board of Selectmen	Police and Fire Station	No			
		47-57				0.38			Board of Selectmen	Vacant / slated for demolition	No			
		47-45				0.22			Board of Selectmen	Parking	No			
		47-46				0.26			Board of Selectmen	Parking	No			
		47-49				0.17			Board of Selectmen	Parking	No			RIX plan for consolidation?
		47-50				0.17			Board of Selectmen	Parking	No			
		47-58*				1.72			Board of Selectmen	Parking	No			
<b>Fire Station #2</b>														
		70-3				1			Board of Selectmen	Fire Station	No			
<b>Community Center</b>														
		50-31-1				1			Board of Selectmen	Senior Center	No			
<b>Greendale Ave Site (Parcel 74)</b>														
		37-1				61			Parks & Recreation	Recreation	No			
<b>Claixan Field Site</b>														
		303-1				16.85			Parks & Recreation	Parks and DPW	Yes			
<b>Town Forest</b>														
	Current Parks & Recreation owned only: 196.43 acres	303-3				62.5			Parks & Recreation	Passive recreation	Yes			
		303-4				17.23			Parks & Recreation	Passive recreation	Yes			
		303-5				34.9			Parks & Recreation	Passive recreation	Yes			
		303-7**				64.82			Parks & Recreation	Passive recreation	Yes			
		303-8				3.73			Parks & Recreation	Passive recreation	Yes			
		303-11				6			Parks & Recreation	Passive recreation	Yes			
		212-42				1.16			Parks & Recreation	Passive recreation	Yes			
		212-43				1.22			Parks & Recreation	Passive recreation	Yes			
<b>Rosemary Pool + Building Site</b>														
	23.98 acres	225-2				17.19			Parks & Recreation	Recreation	Yes			
		225-31				1.08			Parks & Recreation	Recreation	Yes			
		225-1				22.9			Parks & Recreation	Recreation	Yes			
<b>DeFazio Field</b>														
	36.63 acres	302-7				7.81			Board of Selectmen, Parks & Recreation, School Department	Recreation	Yes			
		302-05				17.7			Board of Selectmen	Public Works / Recreation	Yes			
<b>Cricket Field</b>														
		74-12				6.76			Parks & Recreation	Recreation	No			
<b>Nike Site</b>														
		306-11							School Department	Passive recreation	No			
<b>Daley Building Site</b>														
		70-29				0.92			School Department	Public Facilities Operations & Maintenance	No			
<b>Hillside School</b>														
		107-1				24.6			School Department	Elementary School	Yes			
<b>Ayllard School</b>														
		75-1				28.57			School Department	Middle School	No			
<b>Mitchell School</b>														
		76-1				12.47			School Department	Elementary School	No			
<b>Emery Grover Building</b>														
		51-2				1.06			School Department	School administration	No			
<b>High School</b>														
		122-10				14			School Department	High School	No			
<b>Ridge Hill Reservation</b>														
		306-1				352**			Conservation	Summer camps, passive recreation	No			
<b>Ridge Hill Buildings Related Site (Horse Bradley House, Garage, and Barn)</b>														
						3.04			Board of Selectmen	Storage, DPW storage, Summer camps, passive recreation	No			

\* includes 47-62 (parking island)

\*\* preferred building site in Town Forest, located near High Rock St

**CRITERIA MATRIX**  
**DRAFT**

CATEGORY	ACTUAL VALUE	MAX VALUE	COMMENTS
<b>1. LOCATION</b>		<b>22</b>	
1.1 Geographic location		6	Central to mission; moderate changes to operations; requires change to existing operations
1.2 Neighborhood		4	Minimal impact on residential neighborhood and community; moderate impact; significant impact
1.3 Current Use		4	Continued use; compatible use; currently undeveloped and used by others
1.4 Zoning: ZBA, ConCom, DEP		5	Allowed - complies with use and dimensional requirements; Use allowed with moderate approval; Use will be difficult or costly to win approval
1.5 Public Facade/Screening		3	No abutters, nothing special required; Abutters with adequate area for screening; Abutters with inadequate area for screening
<b>2. ACCESSIBILITY</b>		<b>8</b>	
2.1 Site Access		4	Ease of access through existing entry points and roadways; some impact on entry or roadway; significant impact
2.2 Traffic		4	No impact on traffic patterns; some impact; significant impact
<b>3. SITE FEATURES</b>		<b>30</b>	
3.1 Adequate site size		6	Optimum size - allows for expansion; good size but no expansion capability; undersized for full program
3.2 Configuration of site		5	Useable area adequate; useable area limiting; useable area major impacts to intended use
3.3 Existing Structures		5	Existing structures will not impede development ; some impact on intended use; full impact
3.4 Operations - circulation		5	Site meets needs for circulation patterns; site circulation impacted moderately; site requires significant changes to meet circulation needs
3.5 Operations - ease of use		4	Staff and Visitors use of site: Site easily split; site requires some overlap of uses; site uses overlap negatively
3.6 Flexibility		5	Site can be reconfigured as needs change; site has limited reconfiguration options; site has no flexibility
<b>4. ENVIRONMENTAL</b>		<b>10</b>	
4.1 Wetlands		5	No wetlands or no impact; indirect impact; direct impact on existing wetlands, flood plains, endangered species
4.2 Stormwater Management		5	Reasonable costs for stormwater management; moderate costs; excessive costs
<b>5. SITE DEVELOPMENT</b>		<b>22</b>	
5.1 Utilities		5	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	Slopes range: % to %: appropriate for buildings parking - full access; some revisions to meet needs; significant access issues
5.3 Soils		4	Adequate for bearing capacity; non-standard foundations required
5.4 Hazardous Materials		4	Free of known contaminants; testing required; site history of contaminants
5.5 Costs of Development		5	Reasonable costs for development: cut/fill, clearing, blasting; moderate costs; excessive costs
<b>6. AVAILABILITY</b>		<b>8</b>	
6.1 Jurisdictional Control		3	Jurisdictional control remains same; trade of use acceptable and benefits both; highest and best use displaces traditional use in a less positive manner
6.2 Displacement Required		3	Cost of relocation minimal; moderate; excessive
6.3 Acquisition		2	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>SUBTOTAL</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
<b>TOTAL</b>			

## DEPARTMENT OF PUBLIC WORKS

Division	Existing GSF	Existing Total GSF	Proposed GSF	Proposed Total GSF
Administration - Shared	12,872★		4,751	
Administration	Included above		2,398	
Administration - Operations	Included above		2,073	
Administration - Engineering	Included above		4,571	
Operations – Employee Support	3,918		3,812	
Operations – Garage/Maintenance	5,200		14,818	
Operations - Shops	4,620		5,746	
Operations – Wash Bay/ Vehicle Storage + Prep	18,022		46,244	
Building Support (Other storage included)	9,100		2,291	
<b>SUBTOTAL</b>		<b>53,732</b>		<b>86,704</b>
Other Buildings (Not including RTS)	11,200		Est 5,000	
<b>SUBTOTAL</b>		<b>64,932</b>		<b>91,704</b>
Bin Storage Estimated	3,000		Est 5,000	
Outdoor Areas (Including covered storage)	32,800		Max available	
Other Departments in PSAB	8,905★		8,905	
<b>TOTAL INCLUDING ALL OF PSAB</b>		<b>73,837</b>		<b>100,609</b>

## DEPARTMENT OF PUBLIC WORKS

- Vehicles, equipment + materials are located throughout Town:
  - Dedham Ave., RTS, Daley Bldg., Alden Road Pump Station, Charles River WTP, Reservoir B, St. Mary's Pump Station, Ridge Hill, Memorial Field, DeFazio, Claxton and Cricket Fields. The DPW would prefer to maintain space at some facilities, fields and parks, because this is where the equipment/materials are primarily used
  - Vehicles and equipment stored indoors protect these valuable assets and help improve localized site conditions
  - Some storage areas are under the control of other departments and are subject to change as Towns needs change



**DEPARTMENT OF PUBLIC WORKS:  
Other Storage examples**



## DEPARTMENT OF PUBLIC WORKS

- Materials handling areas: storage of stock materials such as sand + gravel and areas to store materials removed during street sweeping, catch basin cleanout or asphalt repairs and from Town construction sites needs should be defined and controlled
  - Currently stored at DPW site near original salt shed + RTS
  - Areas of cold storage, sander bodies + spreaders, pipes + manhole covers etc. should be located to secure and maintain stock and to be nearby other equipment needed to complete the project



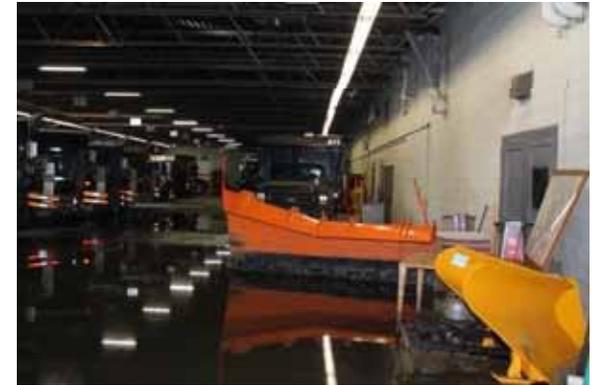
**DEPARTMENT OF PUBLIC WORKS:  
Other Storage examples**



**DEPARTMENT OF PUBLIC WORKS**



**DEPARTMENT OF PUBLIC WORKS**

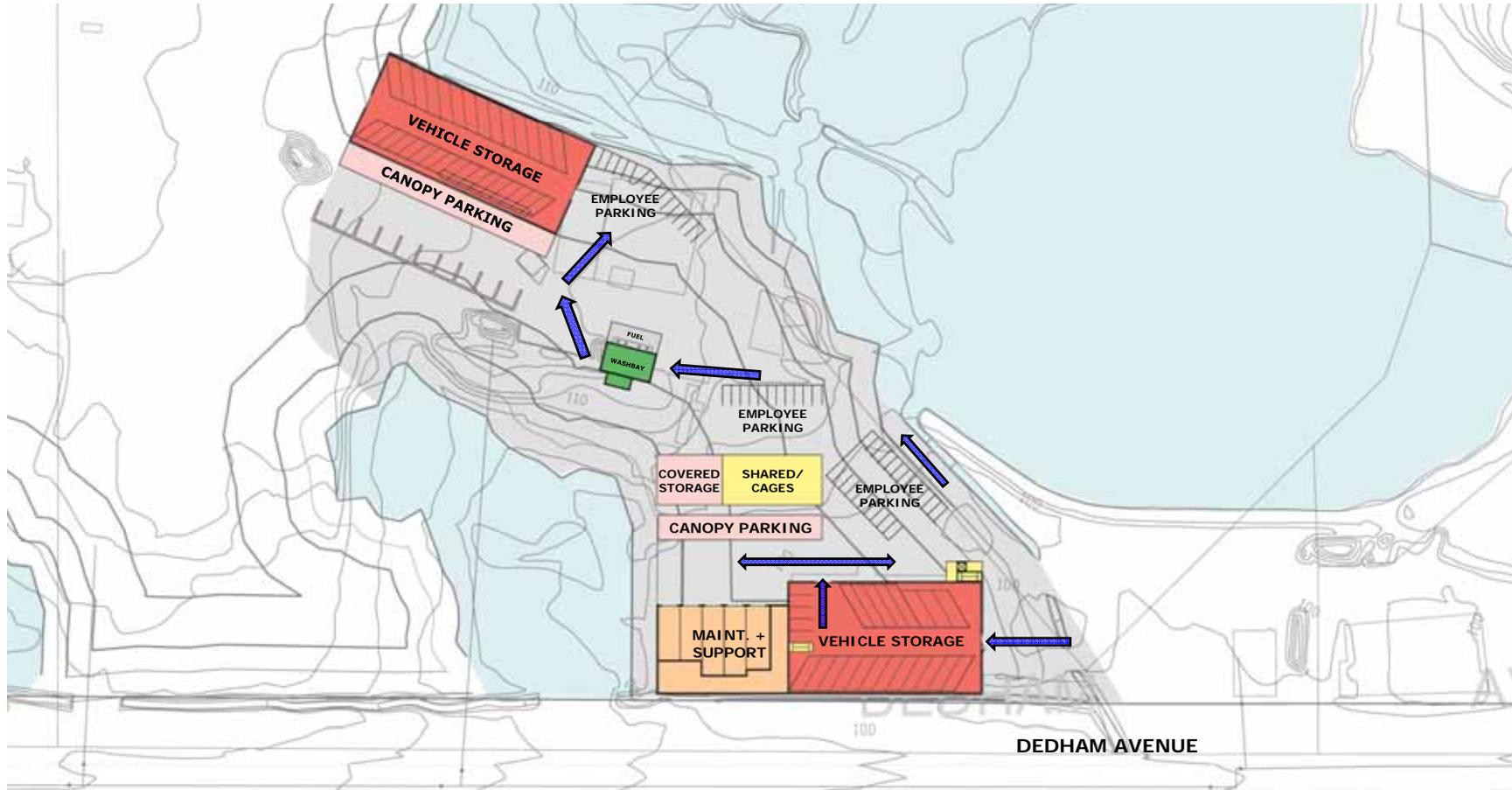


## DEPARTMENT OF PUBLIC WORKS: EXISTING SITE

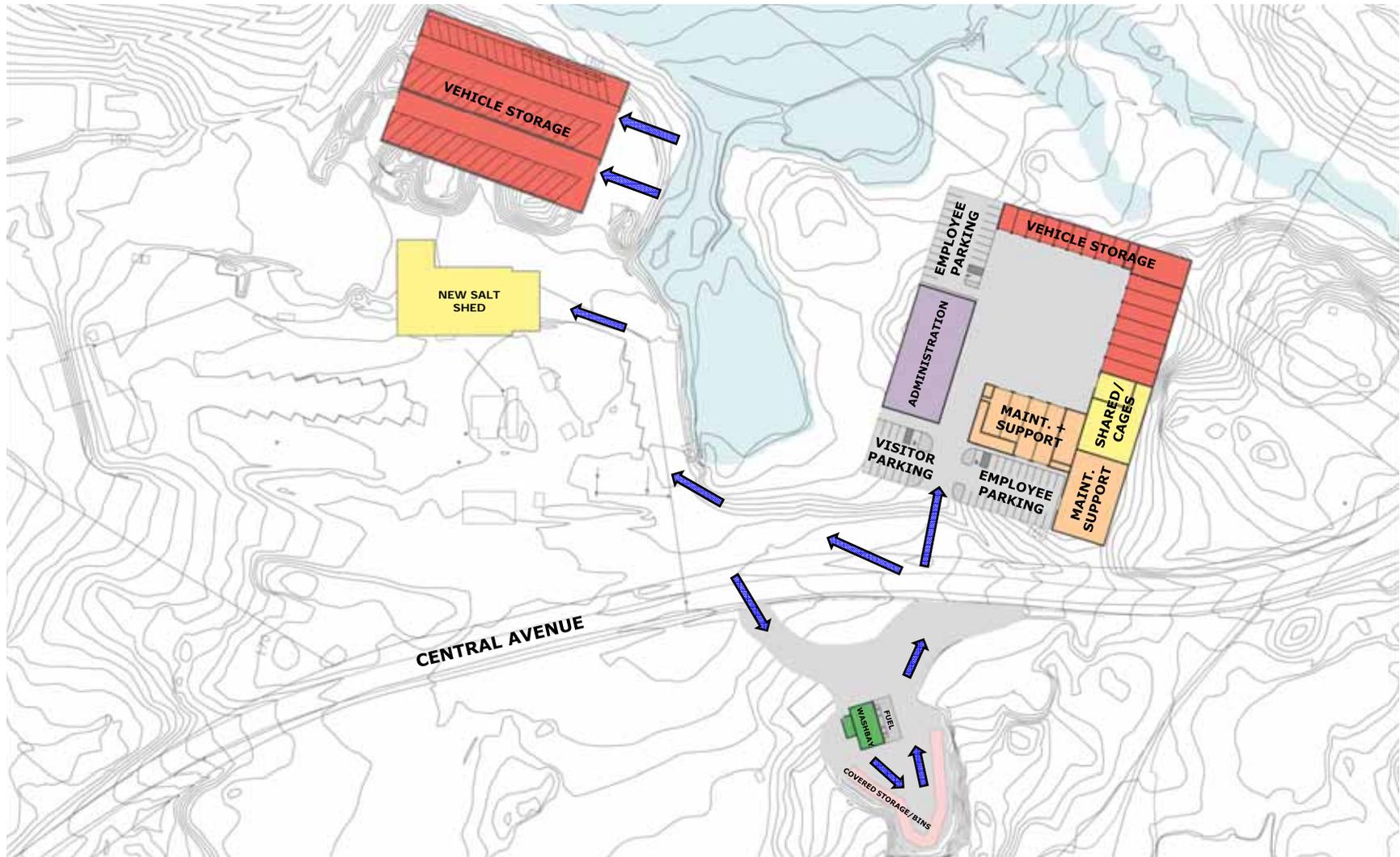


- Existing Vehicle Storage

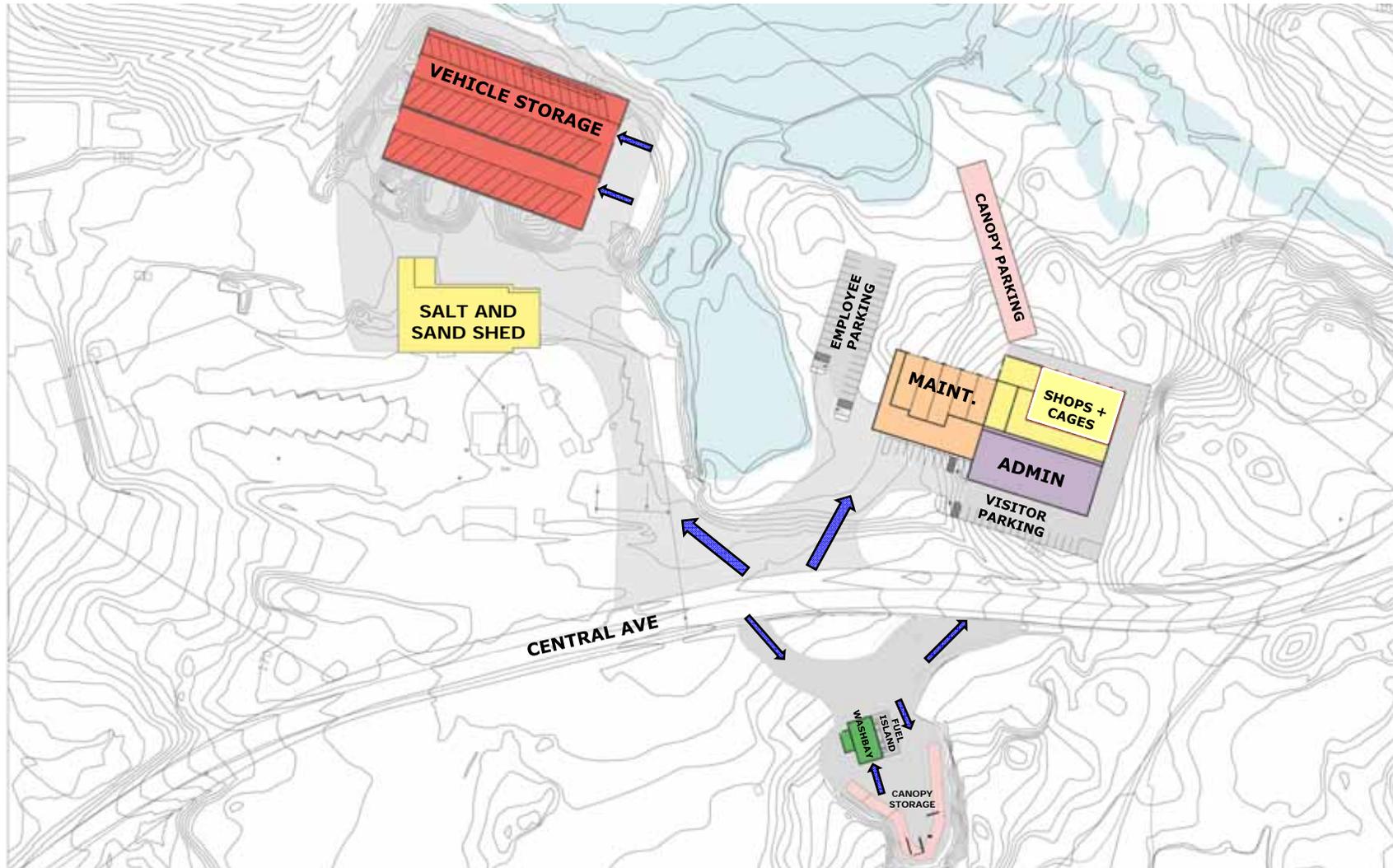
## DEPARTMENT OF PUBLIC WORKS: DEDHAM AVENUE OPTION



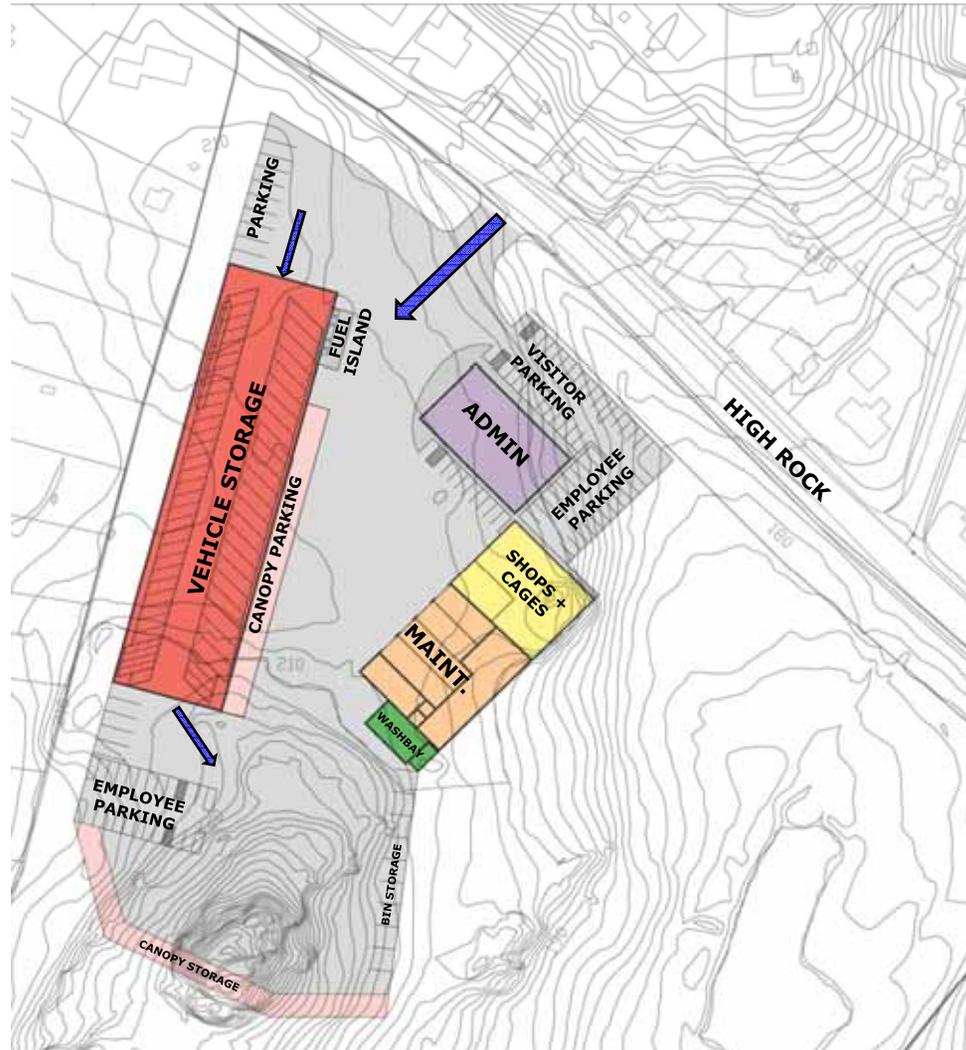
## DEPARTMENT OF PUBLIC WORKS: RTS OPTION 1



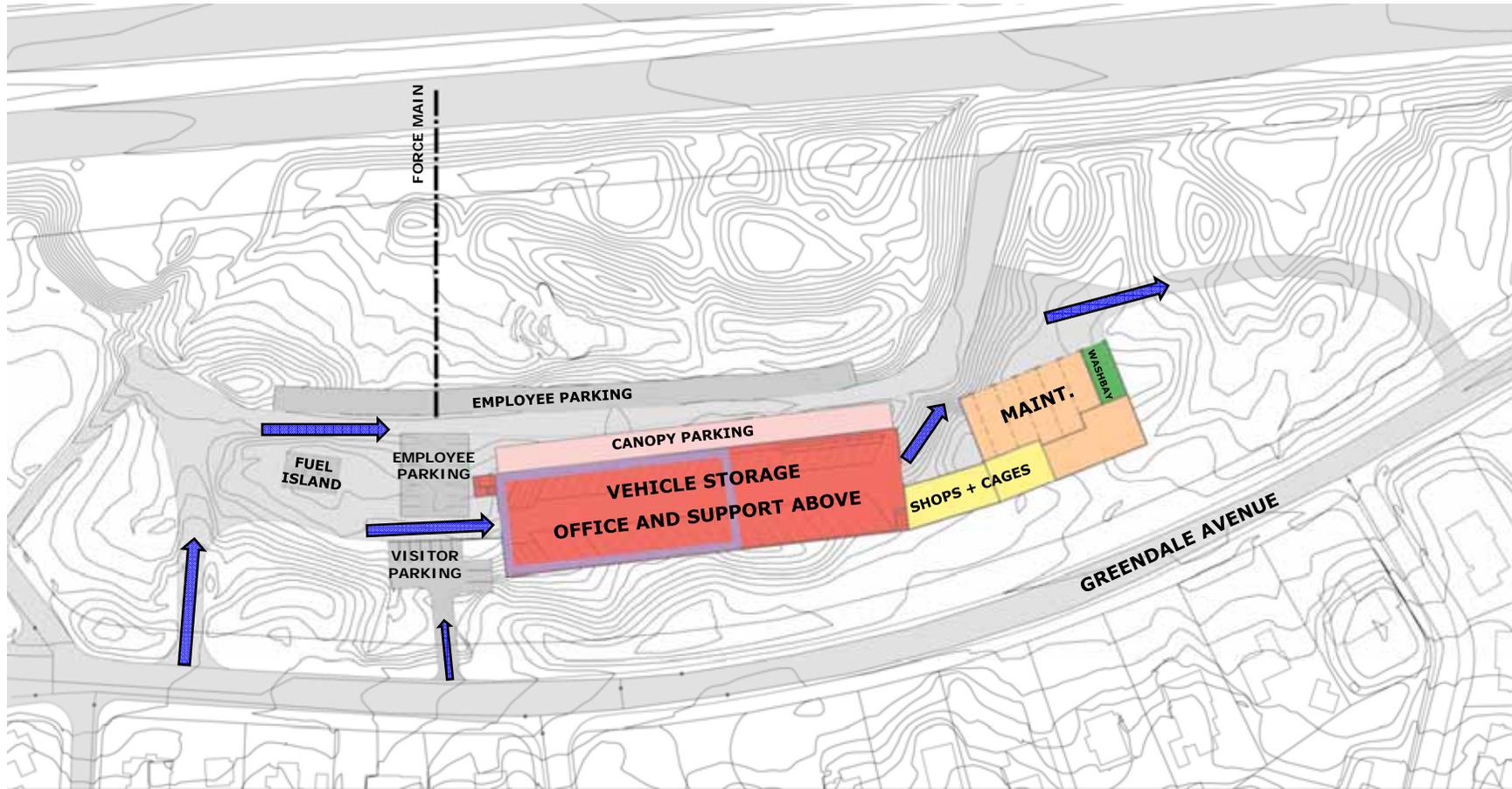
## DEPARTMENT OF PUBLIC WORKS: RTS OPTION 2



## DEPARTMENT OF PUBLIC WORKS: TOWN FOREST OPTION



## DEPARTMENT OF PUBLIC WORKS: PARCEL 74 OPTION



## POLICE AND FIRE DEPARTMENTS

- Current Station #1: +/- 31,145 SF
  - Police: +/- 13,095 SF
  - Fire: +/- 11,634 SF
  - Shared: +/- 6,416 SF
- Station #2: +/- 9,630 SF
- Programming Needs: Dependent on storage of vehicles + equipment
- Changes may trigger full upgrade



## POLICE AND FIRE DEPARTMENTS: SITE

- Site requirements
  - Visitor Parking: 24 hrs; prime 7am to 10pm
  - Personnel Parking: overlapping shifts for both departments
  - Dumpster
  - Impound area (currently in wash bay)
  - Emergency generator
- Movement of emergency vehicles: Fire and Police Vehicles must be able to move quickly and effortlessly from site
- Overall site circulation is poor



## POLICE + FIRE DEPARTMENTS: Results of Programming Sessions

- Program assumes remaining on site

DIVISION	GSF	TOTAL GSF
Public Areas - Shared	658	
PD + FD Shared	3,069	
<b>SUBTOTAL</b>		<b>3,727</b>
PD: Operations + Support	12,127	
PD: Operations - Detention	2,217	
PD: Administration	4,990	
<b>SUBTOTAL</b>		<b>19,333</b>
FD: Operations	10,276	
FD: Administration	2,217	
FD: Staff Support	2,911	
<b>SUBTOTAL</b>		<b>16,388</b>
Building Support		<b>2,505</b>
<b>TOTAL</b>		<b>41,953</b>

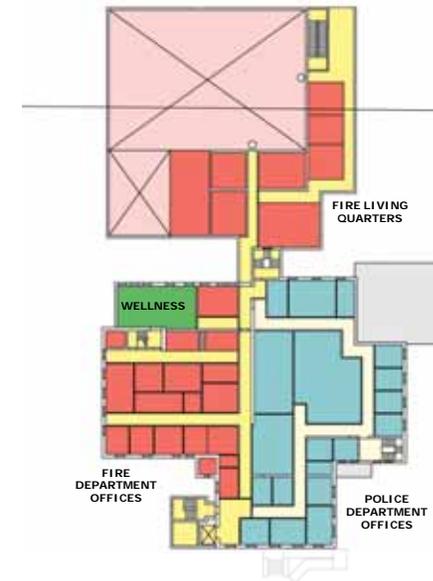
**POLICE AND FIRE DEPARTMENTS**



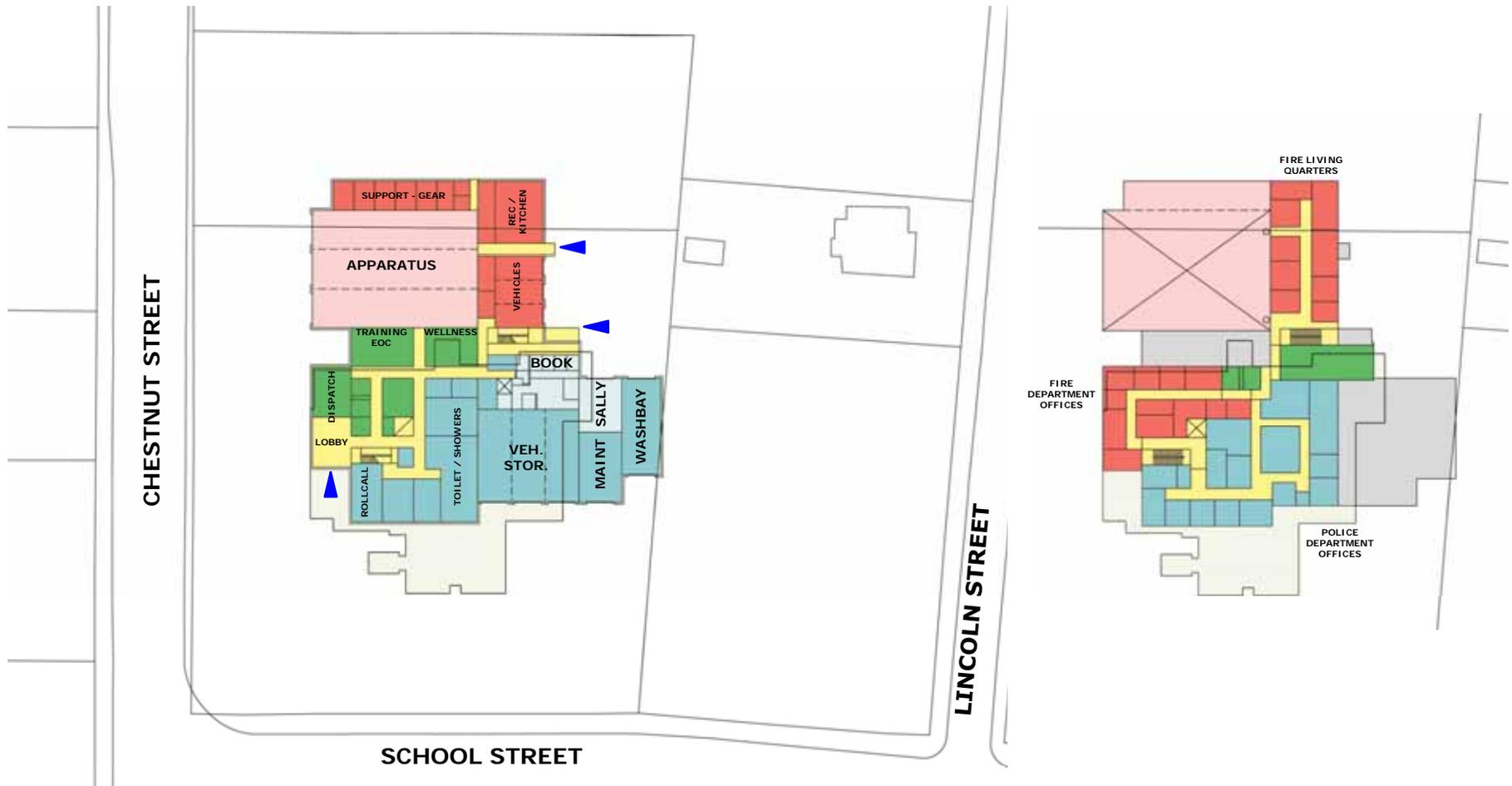
**POLICE AND FIRE DEPARTMENTS**



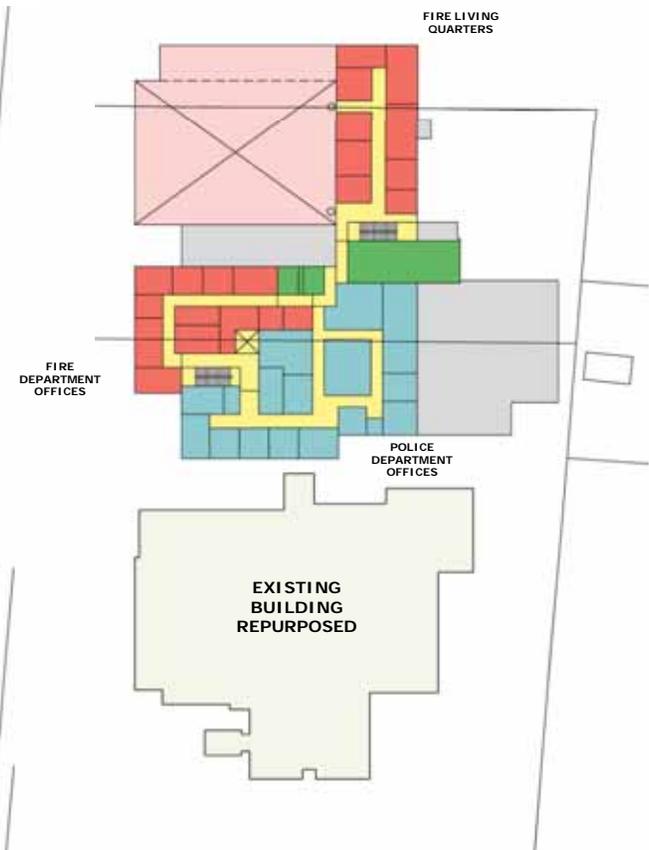
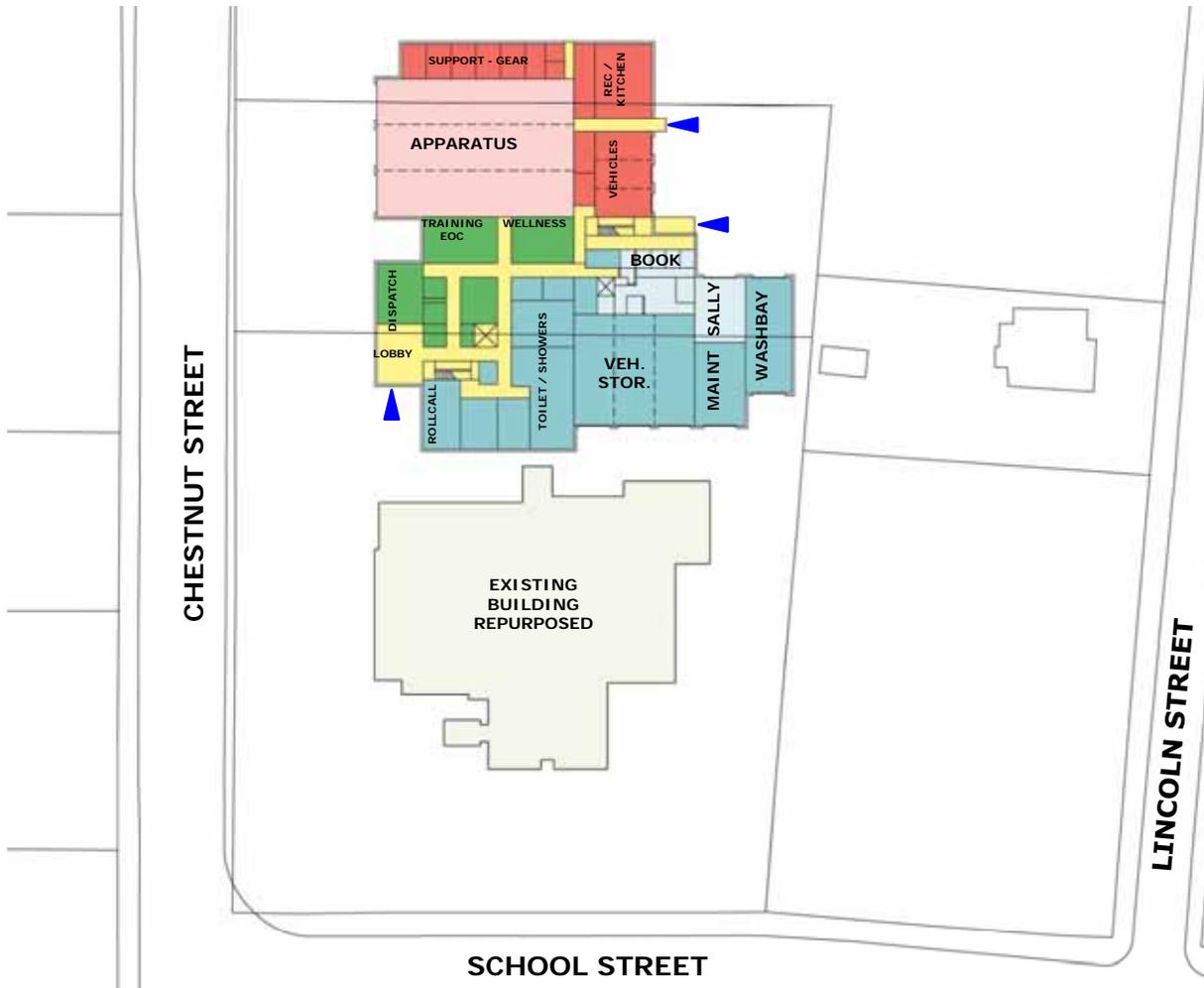
# POLICE AND FIRE DEPARTMENTS: RENOVATION + ADDITION



# POLICE AND FIRE DEPARTMENTS: NEW BUILDING PHASED



# POLICE AND FIRE DEPARTMENTS: NEW BUILDING



## **NEXT STEPS FOR OPTION DEVELOPMENT and REFINEMENT**

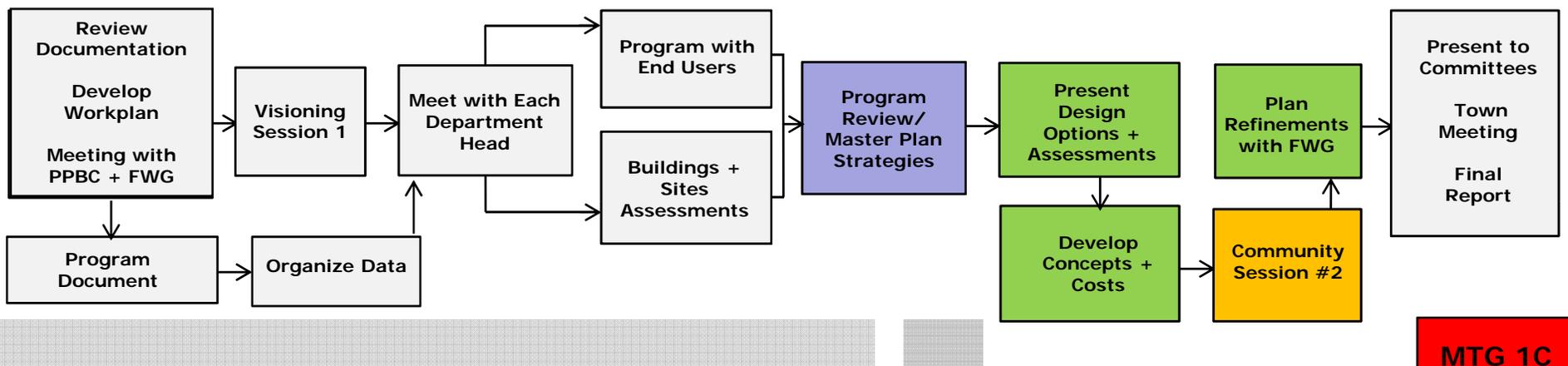
- Consider renovation versus new construction – define premium for both
- Finalize programming documents for DPW + FD/PD
- Options for DPW Program:
  - Refine options at Dedham Ave., Greendale Ave, Town Forest, RTS
  - Additional site?
- Options for FD/PD Site:
  - Refine renovation scheme
  - Test new construction with no phasing versus new construction with phasing
  - Other program options for use of site (plan for future)
- Review Options for School Administration and test on sites
- Review options for Ridge Hill and Nike Sites and test new programs

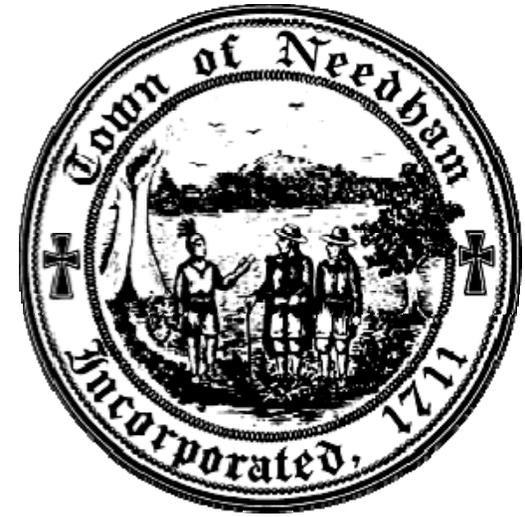
## **COMMUNITY MEETING: APRIL 22, 2014**

- Presentation of Master Plan Goals, Objectives and Process
- Overview of Sites and Buildings Involved
- Detailed Information used to develop options
  - Full programming of DPW + FD/PD
  - Incorporation of other studies underway or completed
    - Elementary and High Schools
    - Rosemary Pool
- Other Issues
- Questions and Comments

## NEXT STEPS

- Community Meeting
- Development of concepts for review with end users and Town personnel
- Present concept design options to FWG for further review and discussion
  - Strategize on options and other possible concepts
- Finalized concepts and develop associated costs
- Revise accordingly with Facility Working Group





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THANK YOU