

Town of Lenox

Public Safety Facility Study



September 11, 2019



CAOLO & BIENIEK
ASSOCIATES, INC.

FD Central Station / Police Dept / EMS



**CAOLO & BIENIEK
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*Public Safety Facility Study
Lenox, Massachusetts*



Fire Department Existing Conditions

Code Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Add a second means of egress	Rated stair tower addition	1
Fire rating between floors	New first floor ceilings & doors	1
Accessible entrance	Elevator addition	1
Accessible rest rooms	Renovate bathroom	1
Lacks separate male & female bathrooms	Add male & female bathrooms	1
Accessibility – General	New doors, hardware, signage	1
Emergency Lighting	New light fixtures	1
Emergency electrical panel within non-rated room	Construct a rated room at electrical panel	1
Fire detection (outdated)	Replace fire alarm system	1
Generator rating & location	Replace generator	2
Energy Code requirements	Insulate wall and attic	1
	New lighting, occupancy sensors	1
	Replace heating system	1

Priority 1 = Mandatory, 2 = Recommended, 3 = Discretionary



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Fire Department Existing Conditions

Building Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Severe cracking at southwest corner	Structural repair / brick replacement	1
Building Repointing	Repoint approx. 25% of building	1
Replace HVAC System	New boiler / Add AC & ventilation	1
Replace plumbing distribution	Replace piping, valve, fitting & fixtures	2
Replace Electrical System	New service and distribution	1
Communication / Data / IT	Upgrade system throughout building	1
Upgrade building finishes	New ceilings, flooring, walls, paint	2
Add fire protection system	Install sprinklers throughout building	3

Priority 1 = Mandatory, 2 = Recommended, 3 = Discretionary



Fire Department Existing Conditions

Program Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Apparatus Bay	Addition of 3,030 sq. ft.	1
Administration Offices	Addition of 650 sq. ft.	1
Decontamination Room	Addition of 200 sq. ft.	1
Medical Storage / EMT Room	Addition of 100 sq. ft.	1
Male & Female Locker Rooms	Addition of 500 sq. ft.	2
Bunk Rooms	Addition of 500 sq. ft.	3

* Additional sq. ft. areas do not include a circulation factor

Priority 1 = Mandatory, 2 = Recommended, 3 = Discretionary



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Police Department Existing Conditions

Code Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Lacks Critical Operations Power System (COPS)	Replace electrical service to the building	1
Add addressable Fire Alarm System	Replace system under renovations	1
Addition of Egress Lighting (interior & exterior)	Replace / Add emergency lighting	1
Ventilation at Cells	Upgrade ventilation per DPH & grills	1
Cell toilet/sink combo units suicide prevention	Replace combo units per DPH codes	1
Accessibility – General = counters/doors/cell	Renovate & replace counters / doors & cell	1
Sight and sound separation at cells	Relocate one cell for complete separation	1

Priority 1 = Mandatory, 2 = Recommended, 3 = Discretionary



Police Department Existing Conditions

Building Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Entrance door deterioration	Replace entrance storefront	1
Electrical upgrades	New panels & distribution	2
Communication/Data/IT (camera) upgrades	Replace systems	2
Generator – 50 years old	Replace generator & increase size	2
HVAC air handling units - 20 years old	Replace HVAC units	2
HVAC control issues	HVAC controls (equipment & software)	3
Finish upgrades – general	Replace ceramic tile, flooring, paint	3

Priority 1 = Mandatory, 2 = Recommended, 3 = Discretionary



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Police Department Existing Conditions

Program Upgrades:

<u>Items</u>	<u>Solution</u>	<u>Priority</u>
Sallyport	Addition of 280 Sq. ft.	1
Garage / large evidence storage	Addition of 560 Sq. ft.	2
Admin spaces (Records & Sergeant)	Addition of 300 sq. ft.	2
Separate interview rooms (2)	Addition of 150 sq. ft.	1
Increase Evidence Storage	Addition of 150 sq. ft.	2
Traffic employee locker room	Addition of 500 sq. ft.	3
Provide separate Lab & kitchen	Addition of 200 sq. ft.	1
Briefing Room	Addition of 200 sq. ft.	3
Accessible & Secure Locker Rooms	Addition of 800 sq. ft.	2
IT/Radio/Communication – Secure	Addition of 100 sq. ft.	2
Holding cells (DPH approved & accessible)	Addition of 160 sq. ft.	1

* Additional sq. ft. areas do not include a circulation factor

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Fire Department Existing Conditions

**Fire Department
Apparatus Bay Addition**

**Fire Department
Administration Wing
Addition**

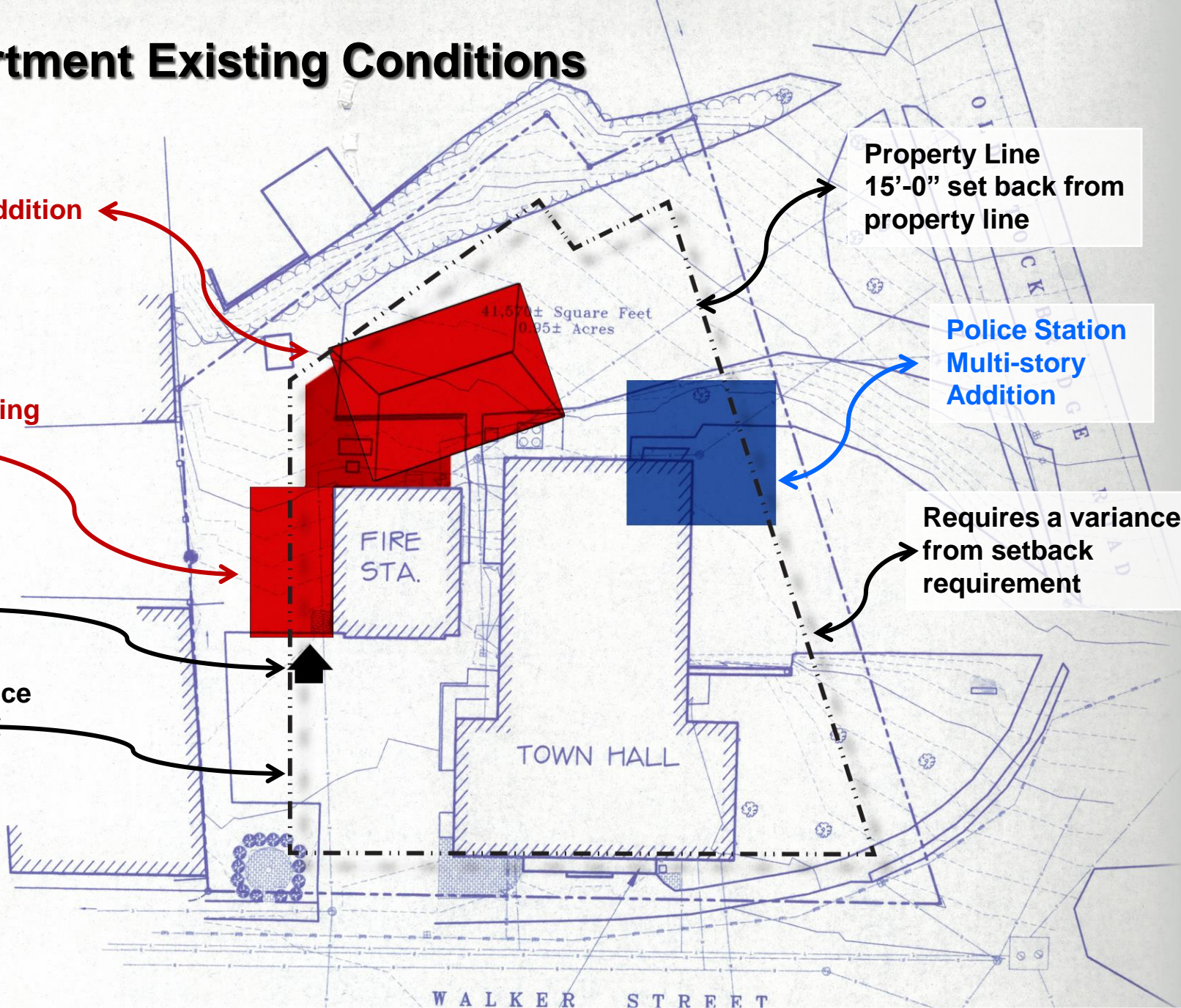
**New accessible
entrance**

**Requires a variance
from setback**

**Property Line
15'-0" set back from
property line**

**Police Station
Multi-story
Addition**

**Requires a variance
from setback
requirement**



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Building Program - Police Department

SUMMARY:

Existing Police St. Program = 2,981 Sq. Ft.

New Police Station Program = 6,908 sq. Ft.

Staff & Space Summary

Town Of Lenox Police Department

August 21, 2019

Program Space	Current Staffing	Future Staffing	Space Type	Occupancy	Floor	Existing sq. ft.	Proposed sq. ft.
100 - Administration							
101 - Office of the Police Chief							
Office - Chief	1	1	Office	1	First	171	150
Office - Secretary	1	1	Office/Public Counter	1	First	114	150
Record	0	0	Records storage	-	First	80	125
Toilet Rooms	0	0	Public Accessible	2	First	50	300
Sargent Office	0	1	Office	1	First	0	150
200 - Operations							
201- Detective, Patrol & Support							
Lab	1	1	Crime Lab	1	First	98	150
Evidence	1	1	Evidence Storage	1	First	81	200
Armory	0	0	Firearms Storage	-	First	49	125
Interview 1	0	0	Interview soft	3	First	125	150
Patrol/Reports	10	10	Report Writing	4	First	220	200
Briefing	4	4	Conference	20	First	0	500
300 - Booking & Detention							
301 - Booking Area & Cells							
Cell #1	0	0	Cell	1	First	50	130
Cell #2	0	0	Cell	1	First	50	130
Booking	0	0	Booking Area	3	First	160	250
Interview 2/ Break Room	0	0	Interview/Interogation	3	First	164	150
400 - Common Areas							
401 - Shared Spaces							
Kitchen/Lab/Break			Recreation	5	First	278	300
402 - Lockers, Toilets & Showers							
Lockers - Women	0	0	Female Locker Room.	3	First	145	500
Lockers - Men	0	0	Male Locker Room.	10	First	181	250
Toilet & Shower Women's	0	0	Restroom/Shower	-	First	95	200
Toilet & Shower Men's	8	0	Restroom/Shower	-	First	115	200
Traffic Locker & Toilet Room	8	8	Unisex	-	First	0	250
500 - Vehicles							
501 - Vehicles							
Sallyport	0	0	Garage	-	First	0	280
Garage Bay 1	0	0	Garage	-	First	0	280
Garage Bay 2	0	0	Garage	-	First	0	280
Storage	0	0	Garage	-	First	0	200
600 - Building Services							
601 - Service & Storage							
Mechanical Room	0	0	Building Service	-	First	87	100
Electrical Room	0	0	Building Services	-	First	20	100
Custodian	0	0	Building Service	-	First	35	30
Storage	0	0	Storage	-	First	20	300
Communication/Data/IT	0	0	Building Service		First	0	100
700 - Circulation							
701 - Fixed Circulation							
Corridors	0	0	Circulation		First	593	750
Staff & Space Requirements							
Staff Totals		23				Existing Building Actual Square Footage	2,981
Staff incl. Vacancies		24				New Building Circulation Factor (10%)	698
						Total New Building Square Footage	6,980



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Building Program - Fire Department

SUMMARY:

Existing Fire St. Program
= 4,658 Sq. Ft.

New Fire Station Program
= 8,075 sq. Ft.



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Staff & Space Summary

**Town Of Lenox
Fire Department**

August 21, 2019

Program Space	Current Staffing	Future Staffing	Space Type	Occupancy	Existing Floor	Existing sq. ft.	Proposed sq. ft.	
100 - Administration								
101 - Admin Offices								
Office - Fire Chief	1	1	Office	1	Second	386	125	
Office - Fire Admin	1	1	Shared Office	1	Second	659	125	
Office - EMT	1	1	Office	1	Lower	167	100	
Plan Room	0	0	Office	2	First	shared admin	100	
Conference Room	0	0	Admin confer	6	First	shared admin	100	
Toilet Room	0	0	Accessible	1	First	50	75	
200 - Operations								
201 - Vehicles & Equipment								
Vehicle Bay	34	34	Apparatus Garage	0	Ground	Volunteer staff	1470	4,900
EMT Garage	0	0	Apparatus Garage	0	Lower		548	-
SCBA	0	0	Bay equipment	0	Ground	in bays		100
Laundry	0	0	Bay equipment	0	Ground	in bays		100
Hose/Storage	0	0	Bay equipment	0	Ground		50	200
Medical Storage	0	0	Bay storage	0	Ground		100	100
Decontamination	0	0	Bay	0	Ground	in bays		200
EMT Mechanical	0	0	Town Hall	0	Ground		100	-
300 - Common Areas								
301 - Lockers, Toilets & Showers								
Male Locker Room	0	0	Locker Room	8	Ground		105	300
Female Locker Room	0	0	Locker Room	2	Ground		31	200
Day Room	12	12	Rec	6	First	Relief Staff	100	150
Kitchen	0	0	Kitchen	2	First		0	100
Bunk rooms	5	5	Beds	4	First	Career Staff	0	500
400 - Building Services								
401 - Service & Storage								
Building Storage (bays)	0	0	Storage	0	Ground		27	100
Building Storage (office)	0	0	Storage	0	Second		54	-
EMT Storage	0	0	Storage	0	Lower		64	100
Basement Mechanical Rooms	0	0	Mechanical	0	Lower		366	-
Hose Tower	0	0		0		Three Stories	171	-
Building storage - General	0	0	General storage	0			50	400
600 - Circulation								
601 - Fixed Circulation								
Corridors	0	0	Circulation		Second		160	-
Staff & Space Requirements								
Staff Totals		54			Existing Building Actual Square Footage		4,658	
Staff incl. Vacancies		54			New Building Circulation Factor (10%)			808
Total New Building Square Footage								8,075

Building Program - Shared Space

Staff & Space Summary

Town Of Lenox
Shared Public Safety Space

August 21, 2019

Program Space	Current Staffing	Future Staffing	Space Type	Occupancy	Existing Floor	Existing sq. ft.	Proposed sq. ft.
100 - Public							
101 - Public							
Lobby	0	0	Circulation	6			200
Toilet Rooms	0	0	Accessible	2			150
200 - Community							
201 - Community Room							
Community Room	0	0	Assembly	25			800
300 - Shared Program Space							
301 - Shared							
Fitness Room	0	0	Fitness	10			600
400 - Emergency Operations							
401 - EOC - Shared							
Equipment Room	0	0	Radio	2			100
Work Room Storage	0	0	Store	2			125
500 - Building Services							
501 - Service & Mechanical							
Mechanical Room	0	0	Mech				150
Radio/Communications	0	0	Com				100
Electrical Room	0	0	Electrical				100
600 - Circulation							
601 - Fixed Circulation							
Corridors			Circulation				100
New Building Circulation Factor (25%)							-
Total New Building Square Footage							2,425

SUMMARY:

Proposed Shared Space Within a
New Public Safety Complex
= 2,425 Sq. Ft.

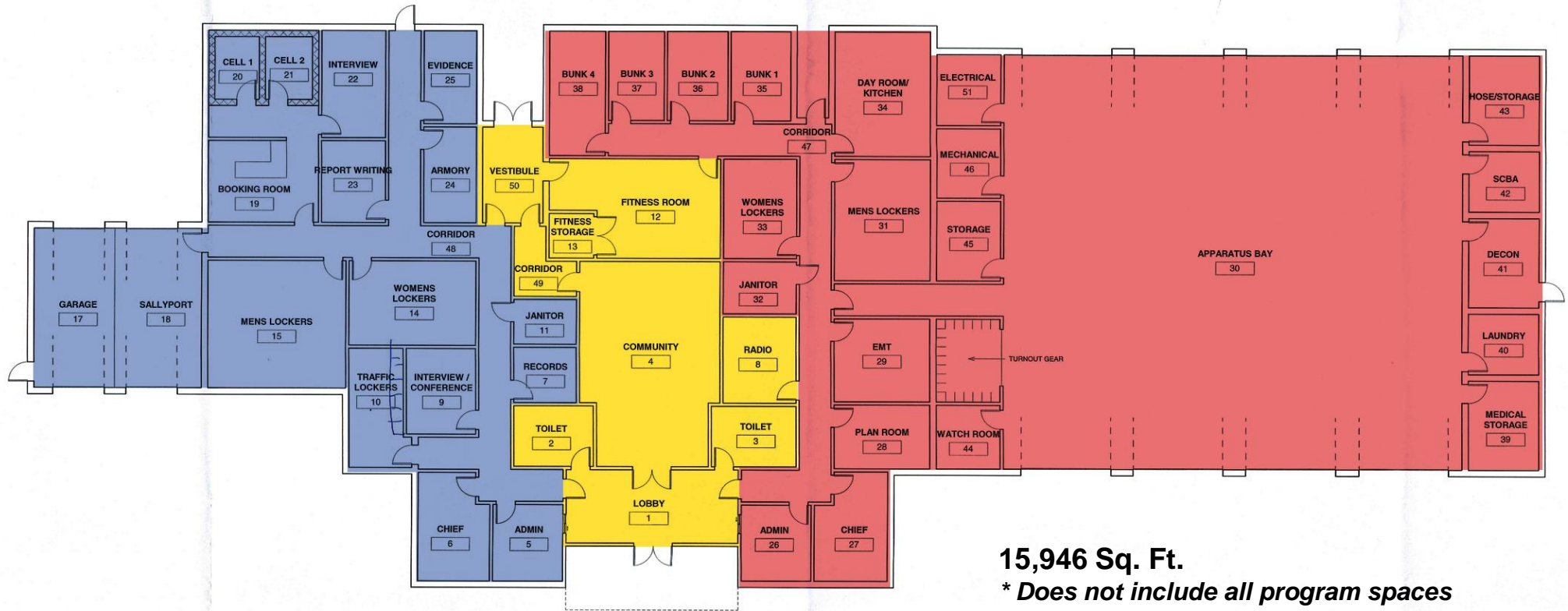
Proposed Shared Space:

- * Lobby
- * Community Room / EOC
- * EOC Equipment/Storage
- * Fitness Room
- * Public Toilet Rooms
- * Radio/Communication
- * Mechanical Room
- * Electrical Room



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Building Layout – Draft 1



- Police Department
- Fire Department
- Shared space

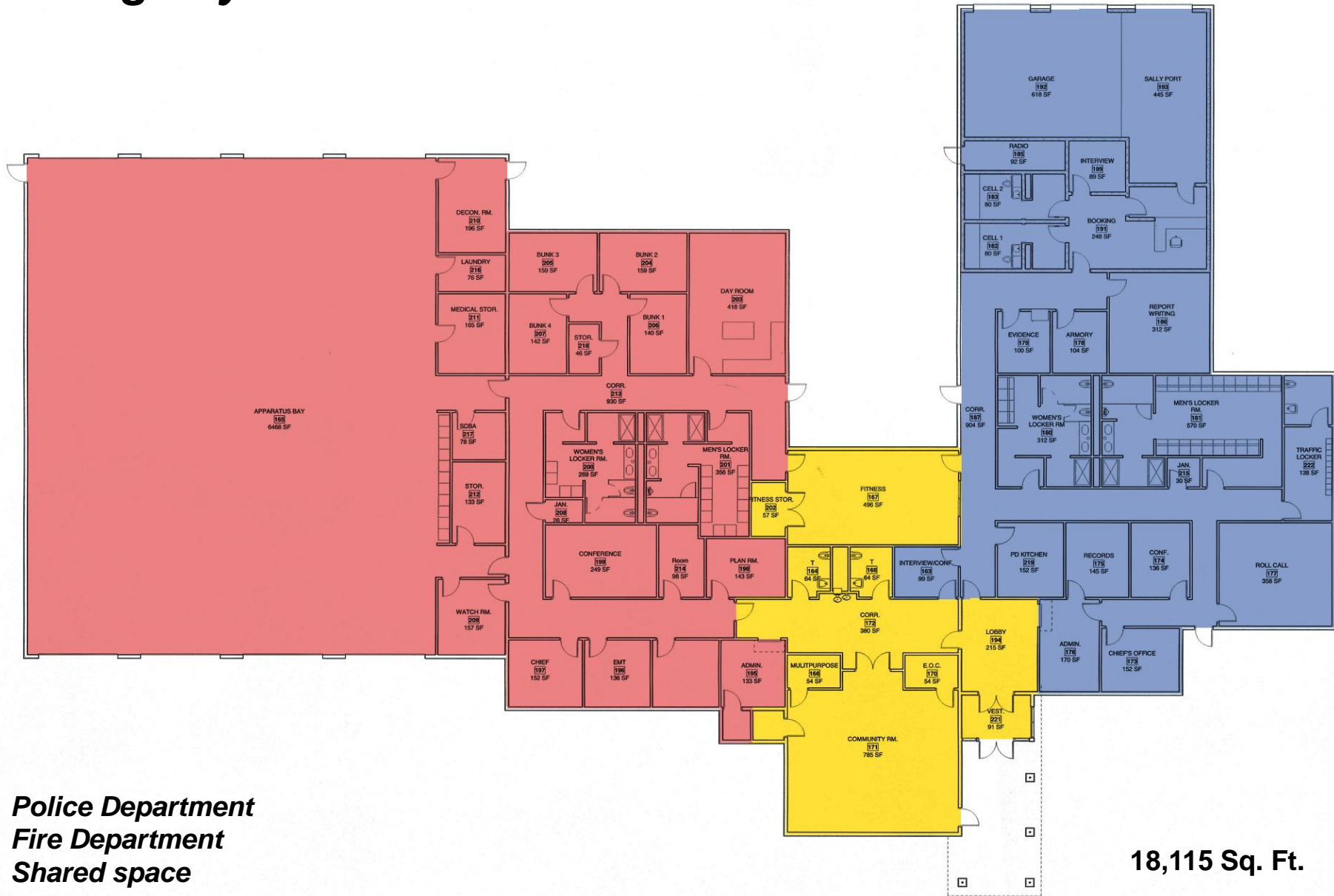


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Building Layout – Draft 2



18,115 Sq. Ft.

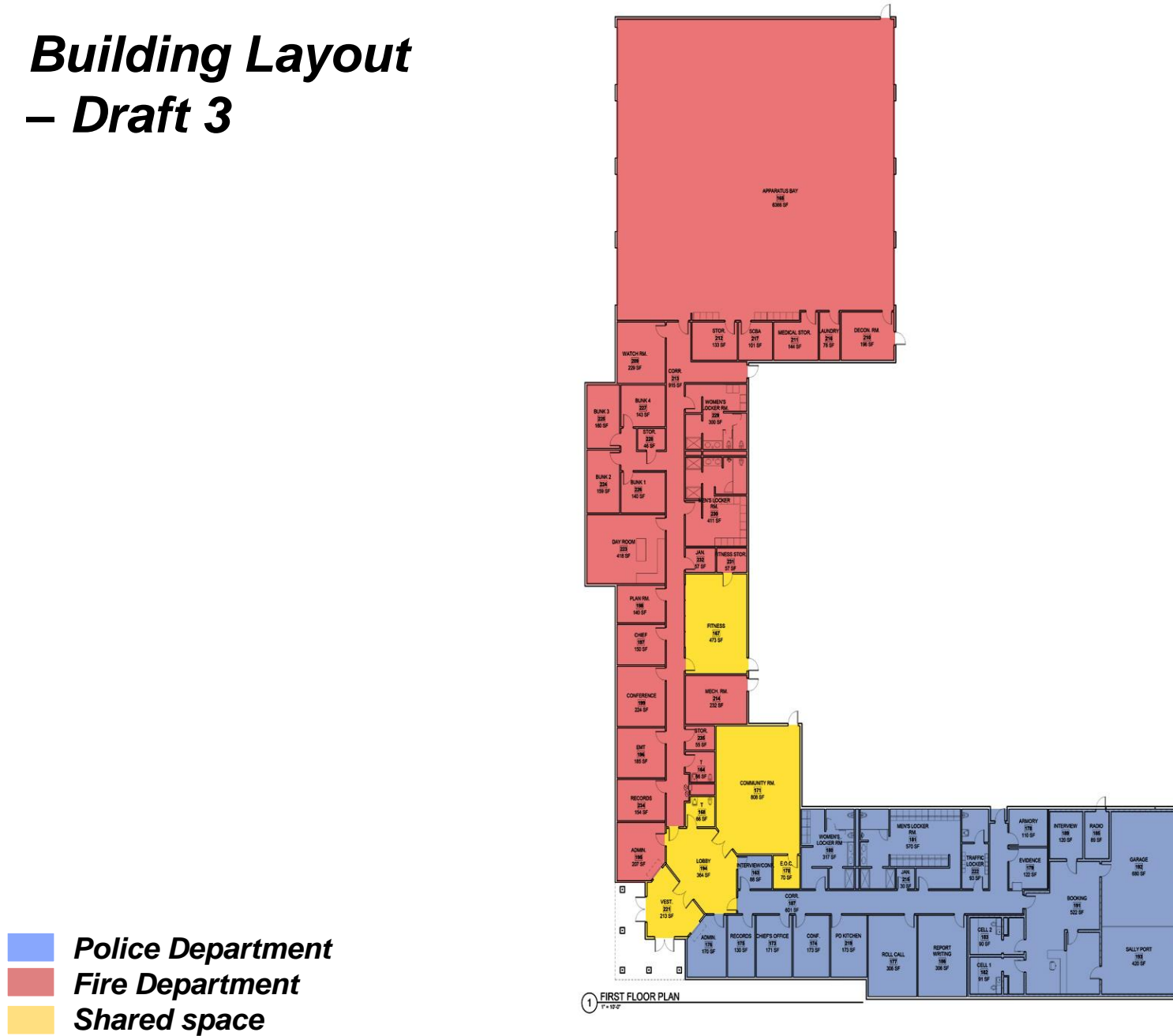


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Building Layout – Draft 3



19,150 Sq. Ft.



Program Space Summary

Program Space vs. Draft Layouts

**17,480 = Total Square Footage of Police & Fire
Department Programs with Shared Space**

15,946 = Total Square Footage of Draft 1 Plan

18,115 = Total Square Footage of Draft 2 Plan

19,150 = Total Square Footage of Draft 3 Plan



Lenox, Massachusetts



Richmond



Highway 20 Site

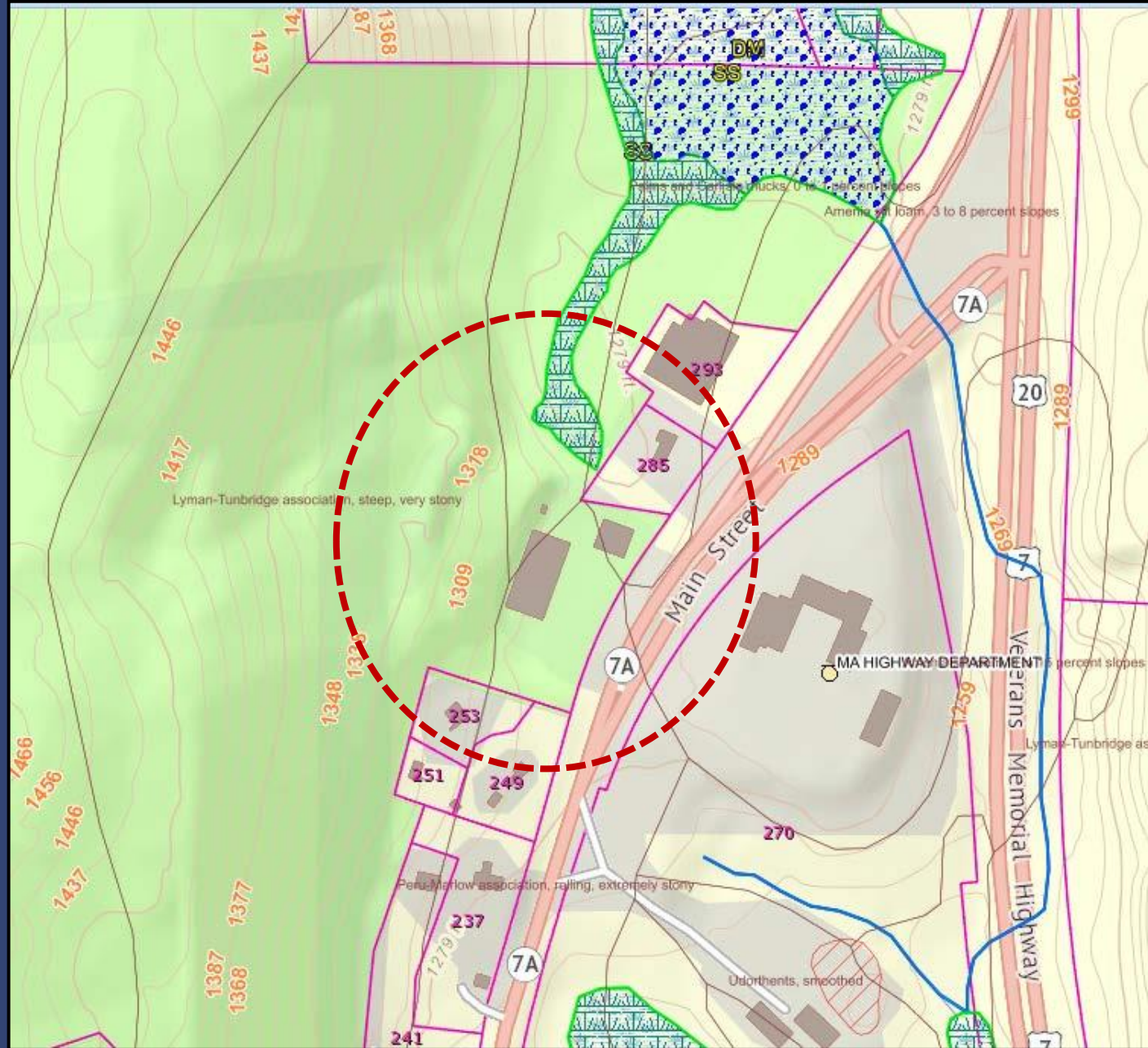
DPW Site

Housatonic Site

Lee Road Site

Walker Street Site

Site Analysis - DPW Site

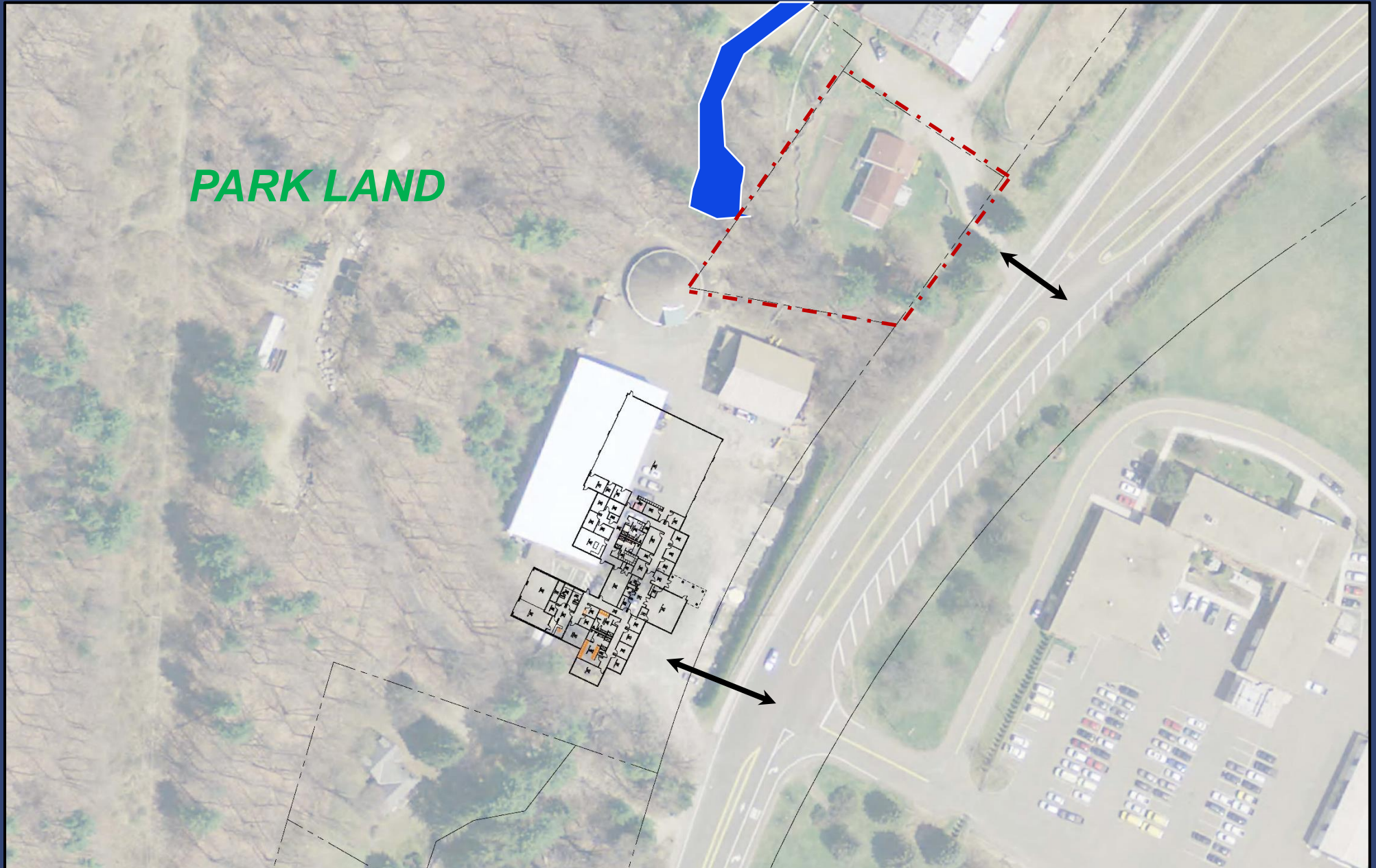


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Site Analysis - DPW Site



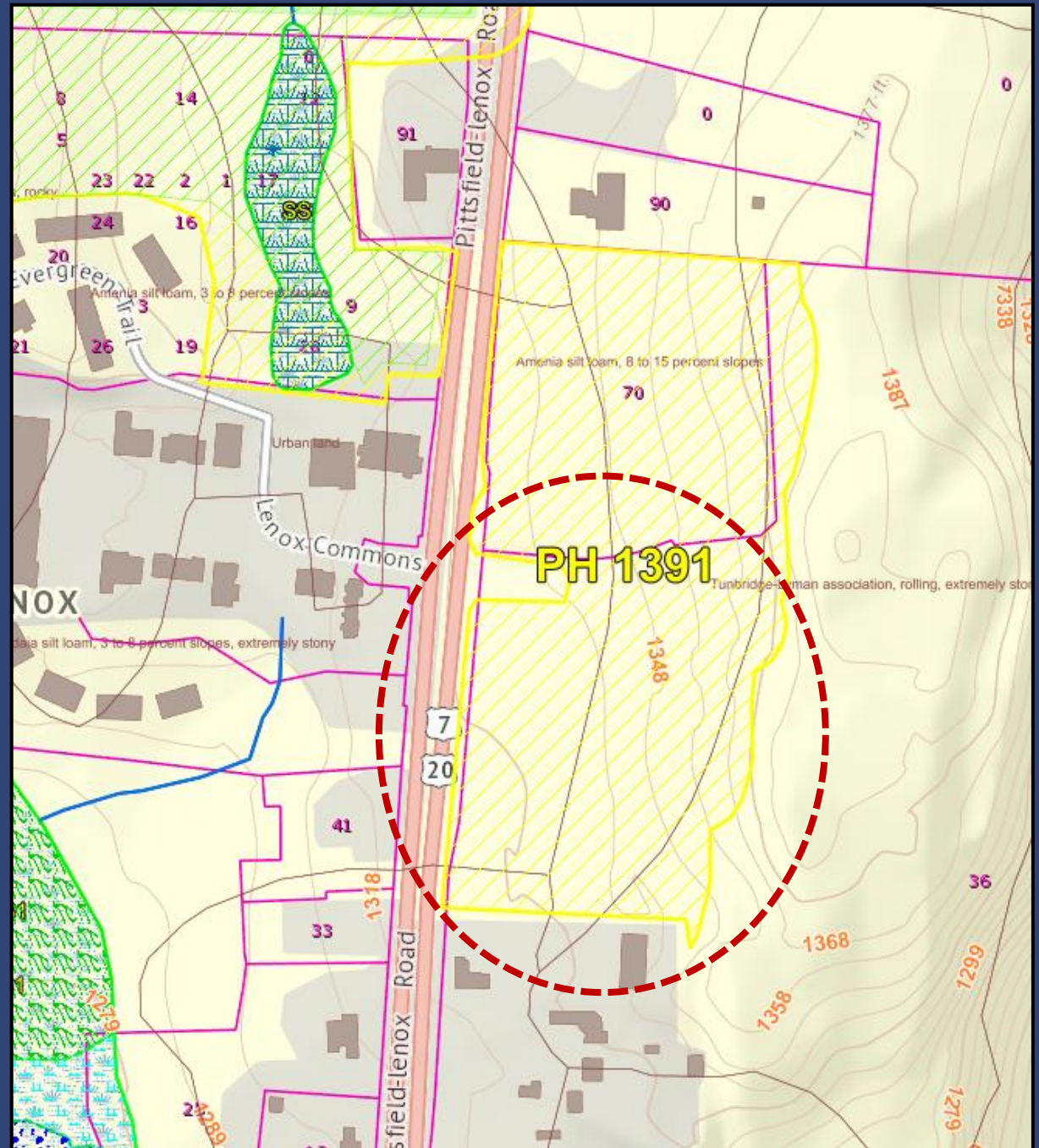
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Site Analysis

- Highway 20 Site

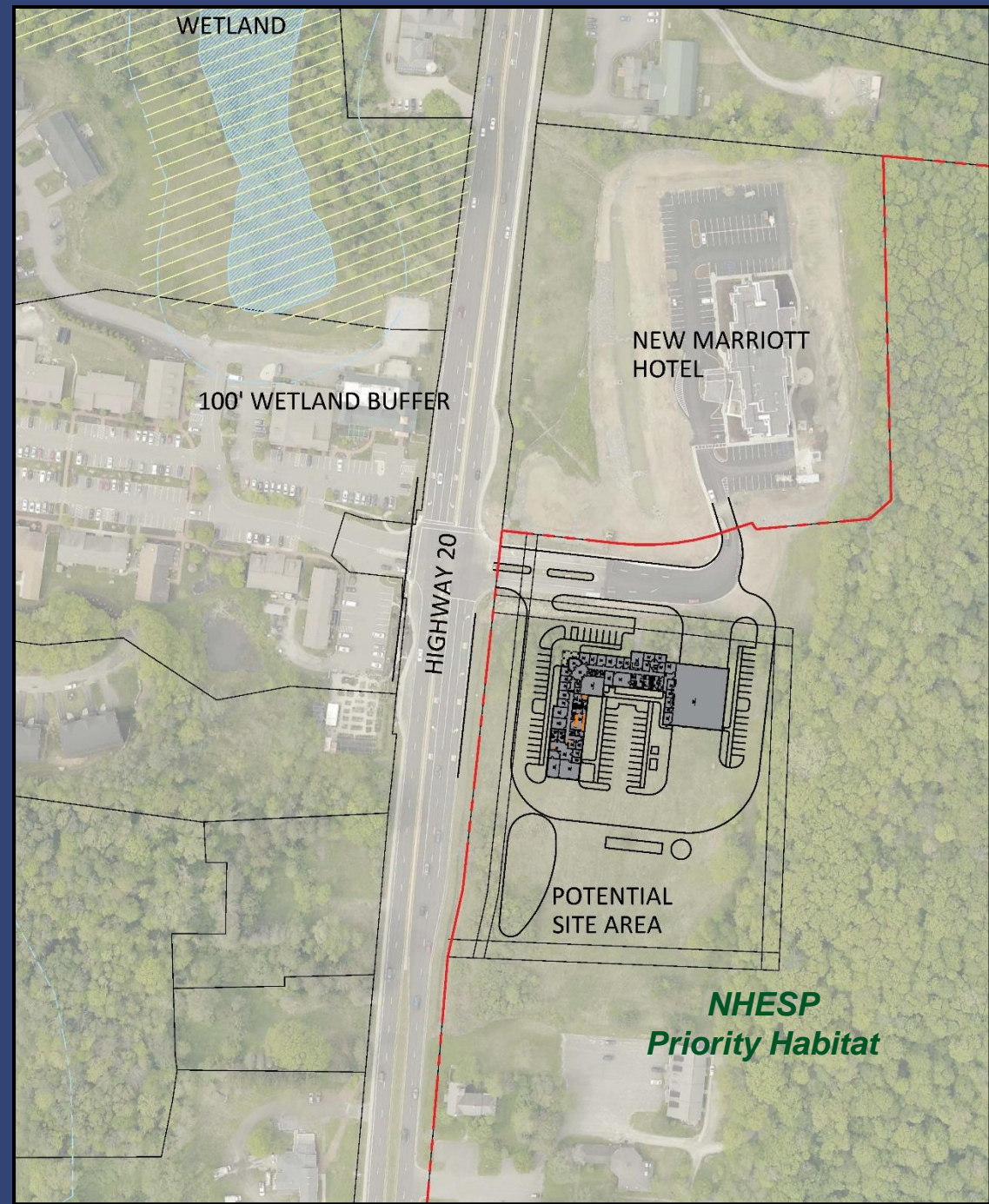
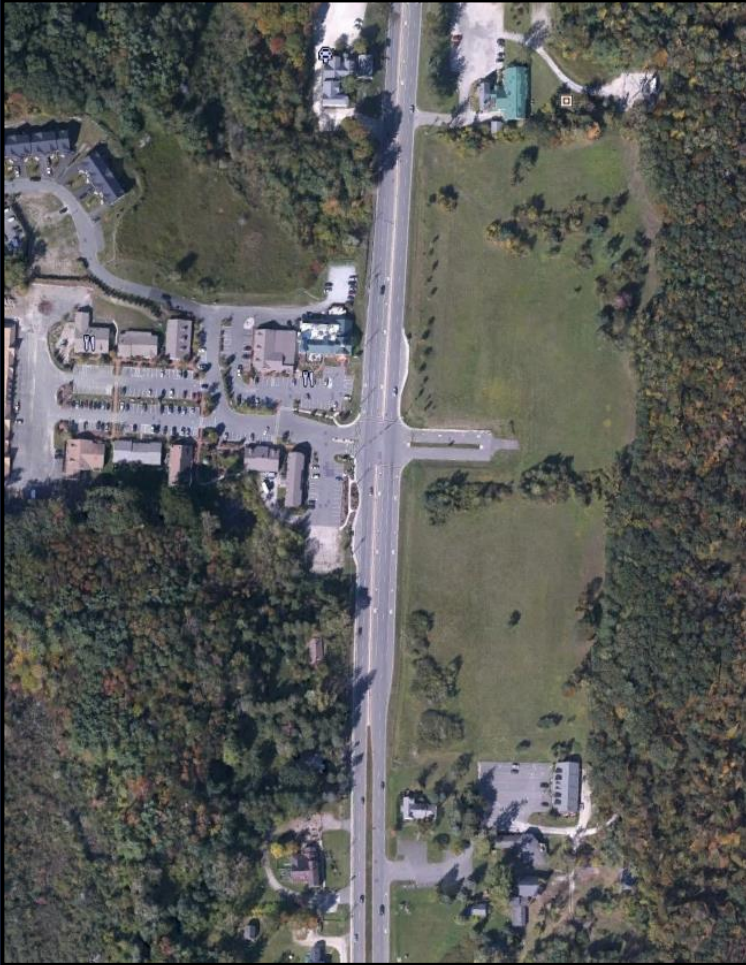


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Site Analysis - Highway 20 Site

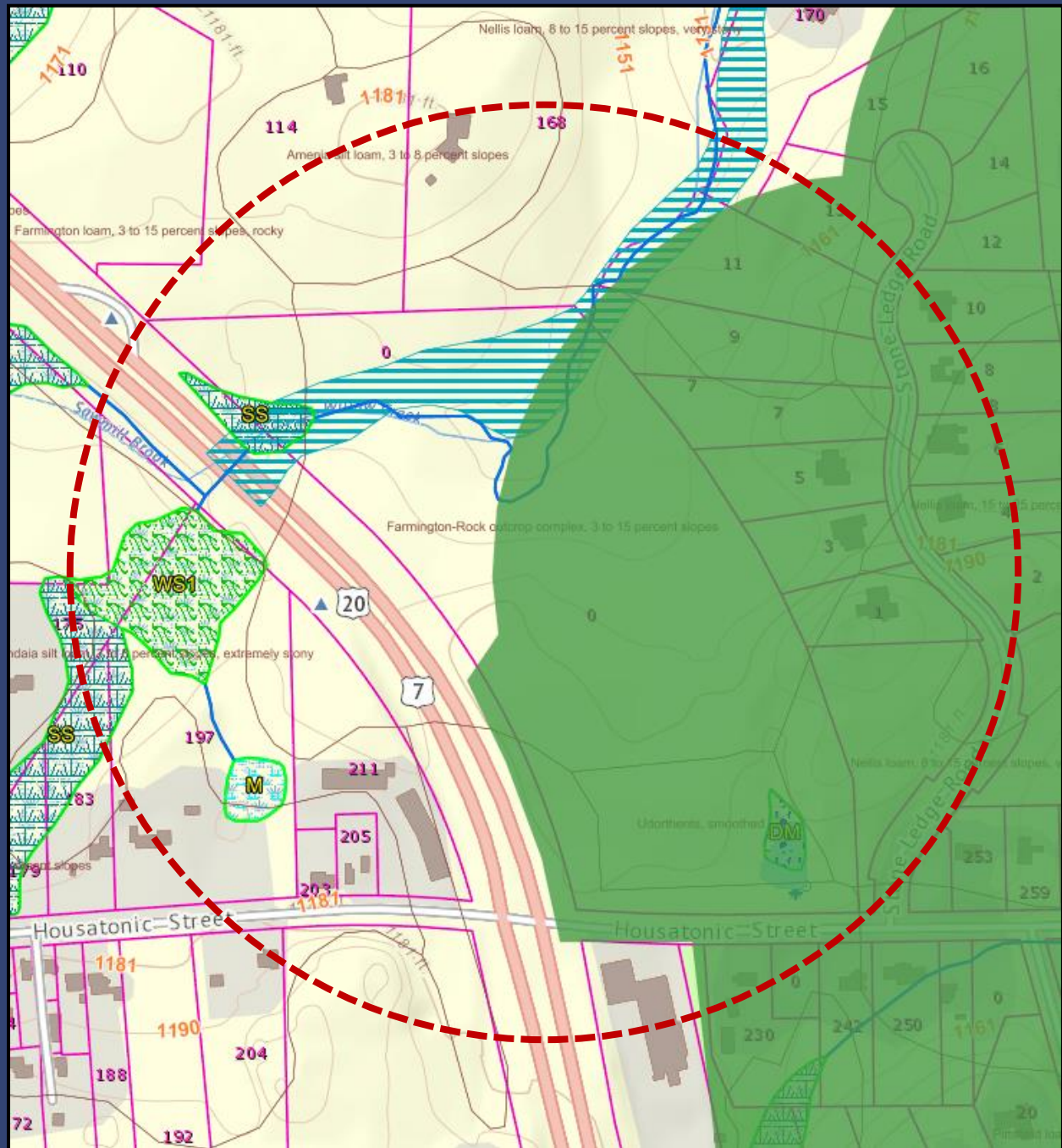


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Site Analysis - Housatonic Road

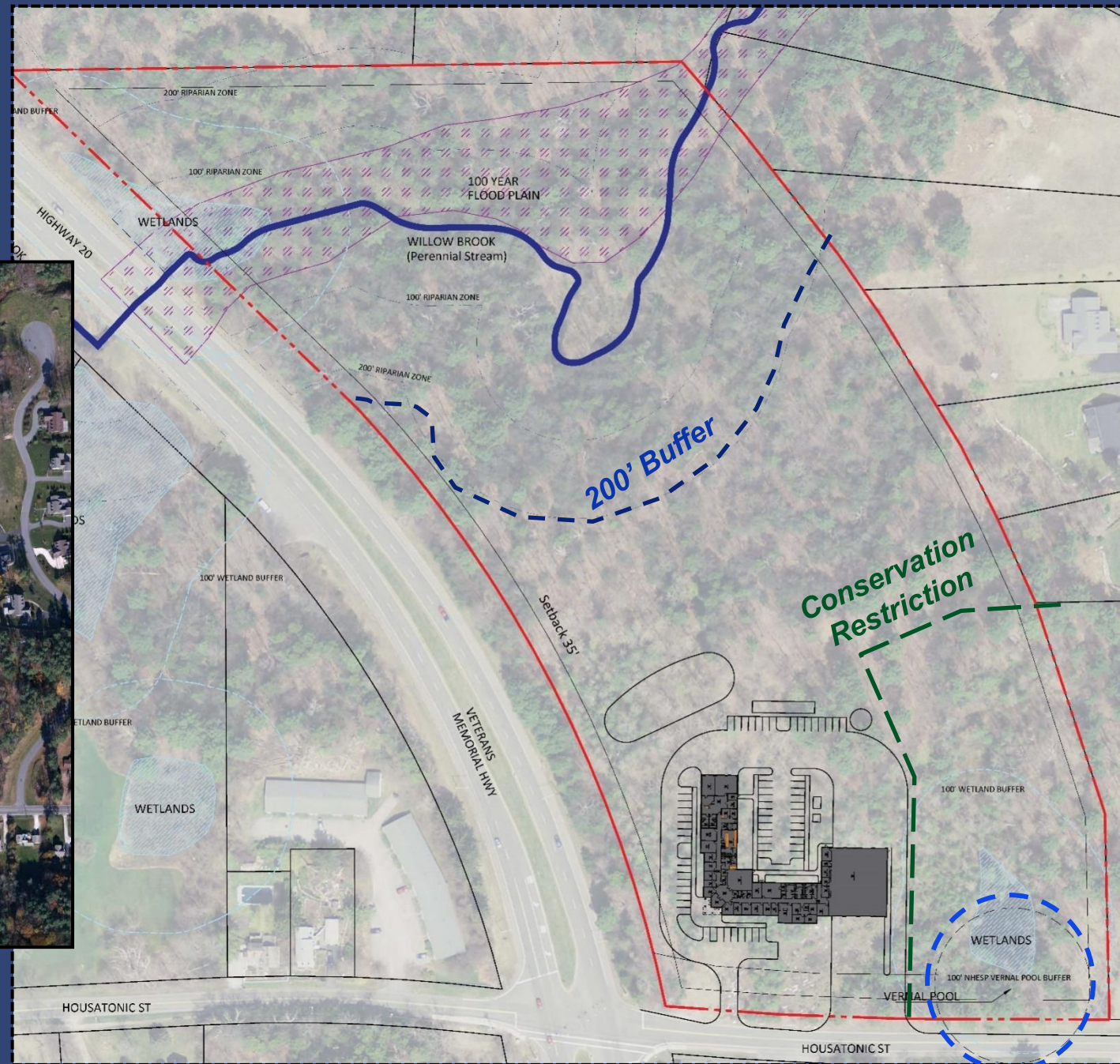


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Site Analysis - Housatonic Road



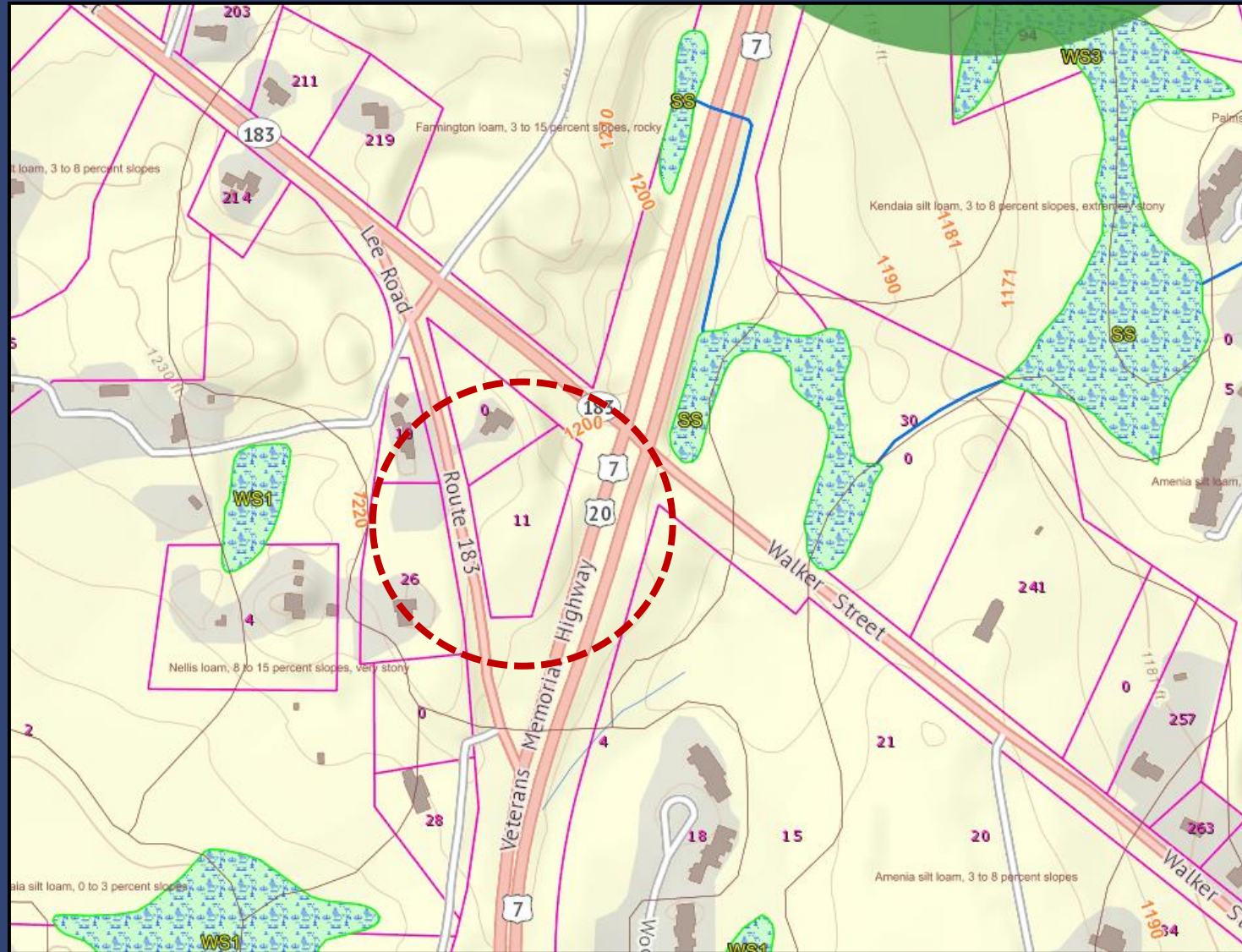
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Site Analysis

- Lee Road & Highway 20



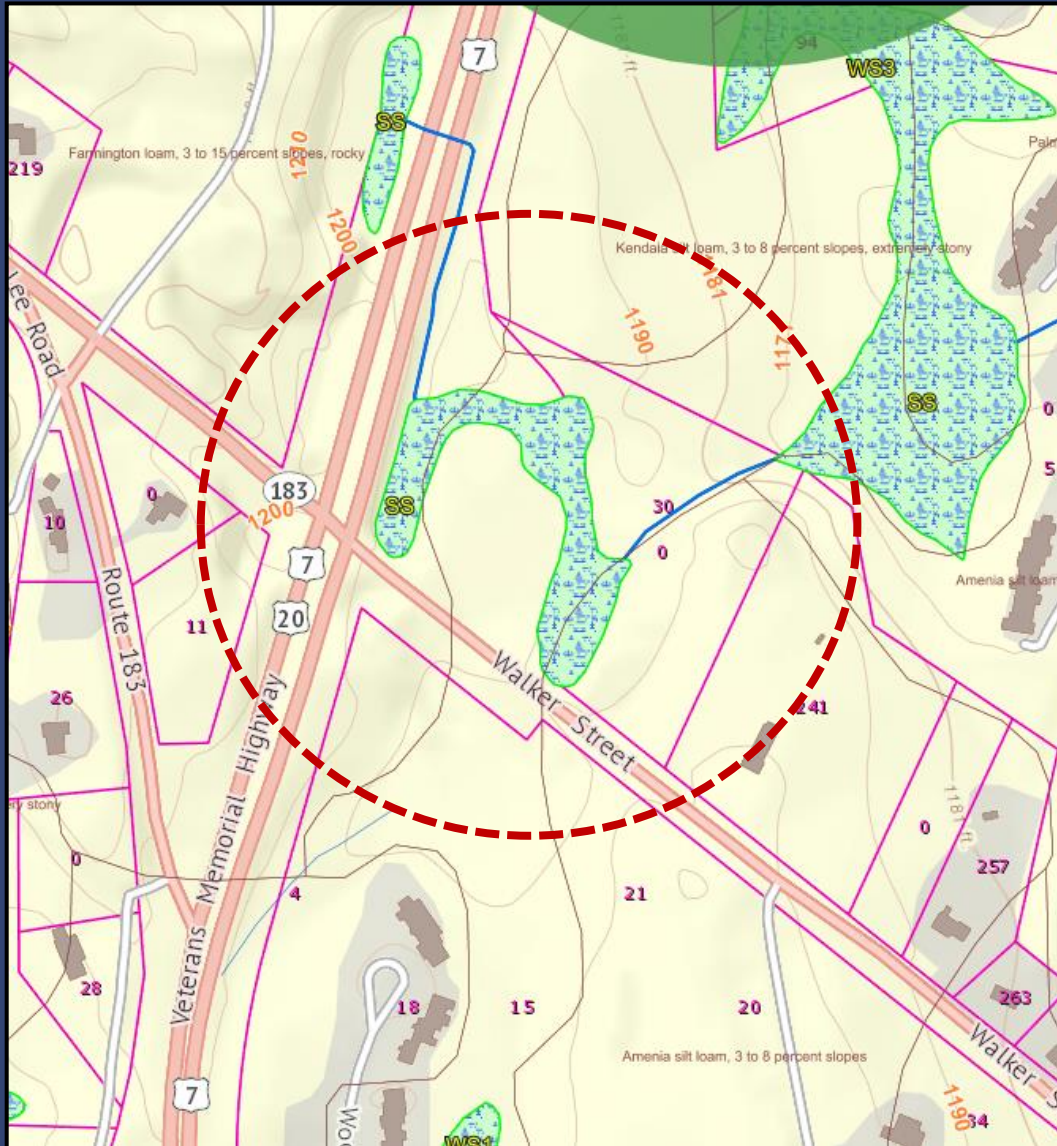
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Site Analysis

- Walker St and Highway 20



Site Analysis

- Lee Road & Highway 20
- Walker St and Highway 20



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Layout Options - Highway 20 Site



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Layout Options - Highway 20 Site



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Layout Options

- Housatonic Site



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Site Analysis

Site Scoring	DPW Site	Highway 20	Housatonic	Lee Road	Walker Street	Existing Town Hall
Location in Town / Response Time	2	2	1	1	1	1
Town Owned Property	3	3	1	3	3	1
Existing Structures to Remove / Renovate / Temporary Facilities	3	1	1	3	1	3
Available Utilities	1	1	1	1	1	1
Topography	3	1	1	1	2	3
Wetlands / Perennial Stream	3	1	2	1	2	1
Buildable Area	3	1	2	3	2	3
Sight Lines / Access / Curb Cuts	2	1	2	3	2	2
Zone Restrictions-Historic, Protected Habitat	3	2	2	1	2	3
Suitable Soils / Rock	2	1	3	2	2	1
Projected Overall Site Development Cost	2	1	2	3	2	3
Traffic Impact	1	2	2	3	2	3
<i>Political Issues</i>	1	1	1	1	1	1
Total	29	18	21	26	23	26

Key: 1= Preferred, 2= Acceptable, 3 = Problematic

Budget Projections

Building Cost - \$600 per sq. ft.	\$10,488,000.00
Land Cost - Purchase of Non Town owned land	\$???
Professional Fees - Legal - Arch/Engineering - Owners Project Manager	\$1,887,000.00
Furniture & Fixtures (FF&E) - New furniture & Equipment	\$420,000.00
Communication / Data - Tower, radio	\$250,000.00
Utility Fees - Electrical, Gas, Water, Telephone/Data	\$60,000.00
Construction Services - Testing, Geo Tech	\$40,000.00
Soft Costs - Moving, advertising, bidding	\$50,000.00
TOTAL BUDGET <i>-DRAFT-</i>	\$13,195,000.00



Next Steps:

- Building Committee's comments?
- Building Program adjustments per Building Committee's direction.
- Site analysis: Eliminate sites? Further review of preferred sites.
- Revise building conceptual design.
- Develop budget for building and Total Project Cost.
- Complete Study Report.
- Review schedule.

