

Town of Norfolk
Fire Station Building Public Info Meeting
November 9, 2011



Norfolk Volunteer
Fire Department

TLB





Goals and Objectives

- Introduce the Project Team
- Demonstrate the NVFD's Role in the Community
- Show the Equipment Necessary to Execute Their Tasks
- Review the Existing Site and Buildings
- Examine Needs for the Future
- Evaluate Options for Meeting Future Needs and the Cost of Doing So
- Q and A

Project Team

NORFOLK

Building Committee Members

Mark Burke, Chairman
Ken Ludwig, Liaison to NVFD
Pete Anderson
Leo Colwell
Pete Mulville
Susanne Funchion
Graham Allyn

NORFOLK

Volunteer Fire Department

Daryl Byrne, Chief
Paul Padua, President

NORFOLK

Residents and Taxpayers

DESIGN TEAM

TLB ARCHITECTURE, LLC
Gibble Norden Champion Brown
Innovative Engineering Services
Fuss & O'Neill, Inc.

NORFOLK

Town Administration
Boards and Commissions
Authorities
Sue Dyer, First Selectman

TLB





TLB



NVFD Duties and Activities

NVFD Duties and Activities

Fires



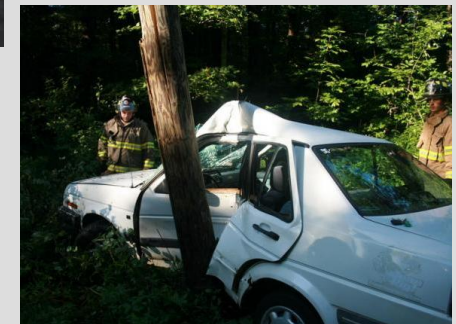
Fires Include Structure Fires, Brush Fires and Motor Vehicle Fires. All Require Different Equipment, Training and Approach.

TLB



NVFD Duties and Activities

Motor Vehicle Accidents



Motor Vehicle Accidents Range From Minor Fender Benders, Requiring Short-Term Traffic Control, to Major Accidents Requiring Extrication and Life Saving Response.

TLB



NVFD Duties and Activities

Rescues



Norfolk's Varied Terrain and Climate Requires Training for Mountain Rescues, Water Rescues, Ice Rescues and Other Situations.

TLB



NVFD Duties and Activities

Weather Events



Rain, Snow and Wind Events Result in Flooding, Downed Trees, Power Outages, Landslides and Icy Conditions, all Requiring the NVFD to be Well Trained.

TLB



NVFD Duties and Activities

Community Involvement



The NVFD is Instrumental in Town-Wide Community Events, Including Parades, Holiday Celebrations, Dinners, Dances and Charity Work.

NVFD Duties and Activities

Education and Prevention



Education and Prevention is an Important Part of the Mission of the NVFD. Events Such as Prom Promise, Fire Safety Day and In-School Events Provide Life Saving Education to Children, Teens and Families.

TLB



NVFD Duties and Activities

Emergency Preparedness



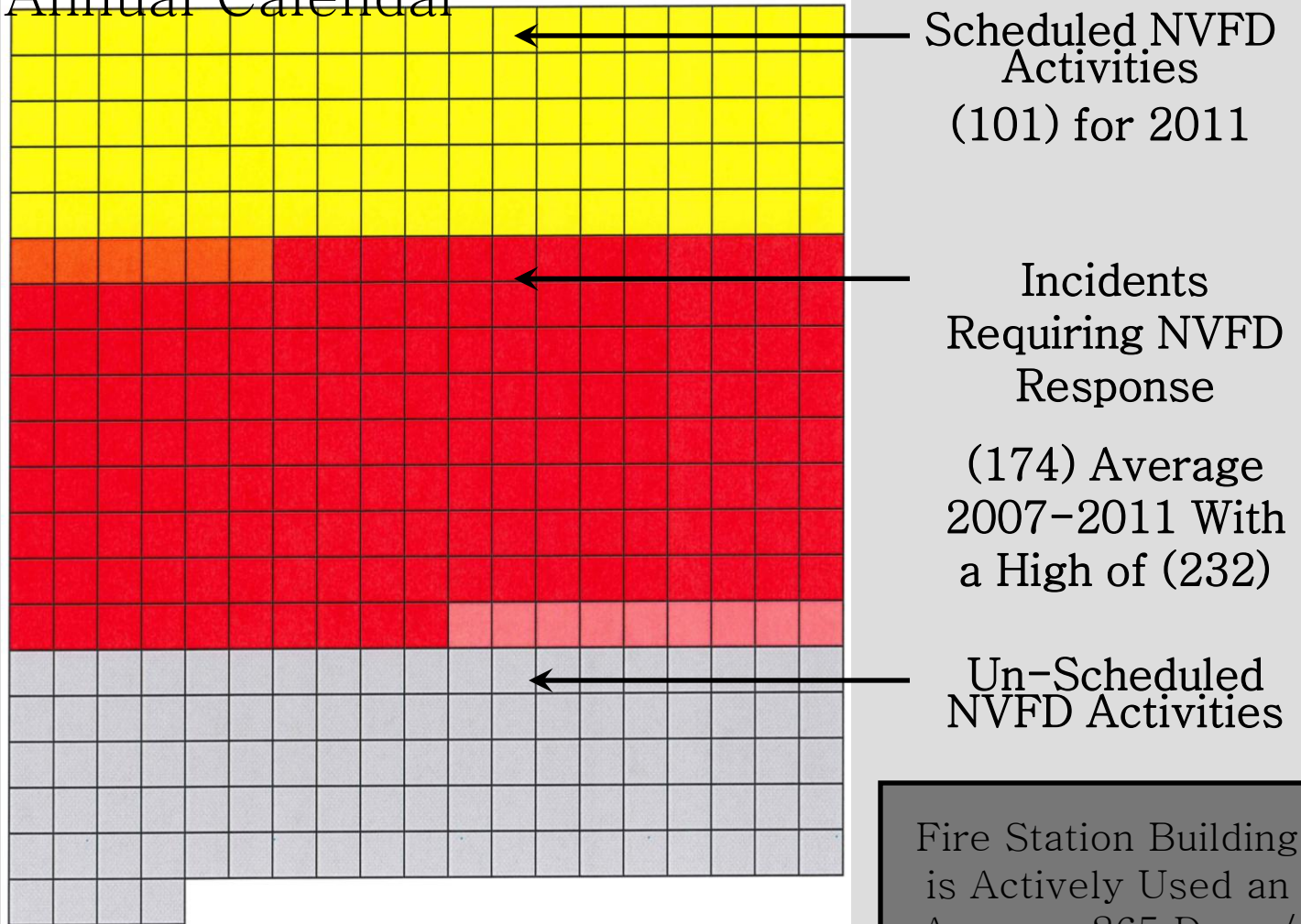
Training for the Fire Department Varies from In-Station Hose Training to Full Scale Community Response Planning Requiring a Variety of Classroom and Field Sessions.

TLB



NVFD Duties and Activities

Annual Calendar



Fire Station Building is Actively Used an Average 265 Days / Year

TLB





TLB

NVFD Equipment

NVFD Equipment



Engine 30

TLB



NVFD Equipment

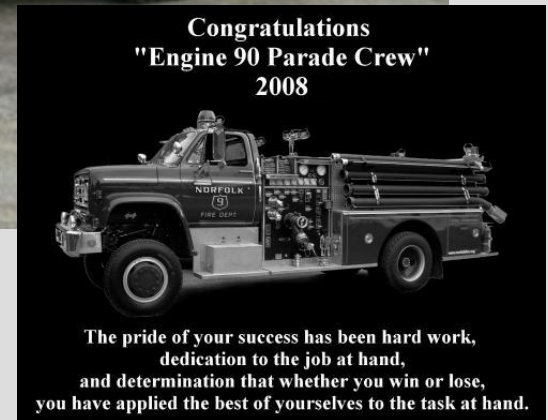


Engine 40

TLB



NVFD Equipment



Engine 90

TLB



NVFD Equipment



Tanker 100

TLB



NVFD Equipment



Utility 50



Unit 70



Brush 80



EM Trailer

TLB



NVFD Equipment



Misc.
Equipment

Ceremonial
Antique
Apparatus



TLB



NVFD Equipment



The Need to Respond to an Ever Increasing Number of Calls Results in the Expansion of Equipment Needed to Respond Appropriately.





Site Analysis

TLB



Demographics

- 46.7 Square Miles of Land
- 1.1 Square Miles of Water
- 86.7% of Land is Undeveloped
- Two Major Highways (Routes 44 and 272)
- 1,660 Residents, 676 Households and 461 Families.

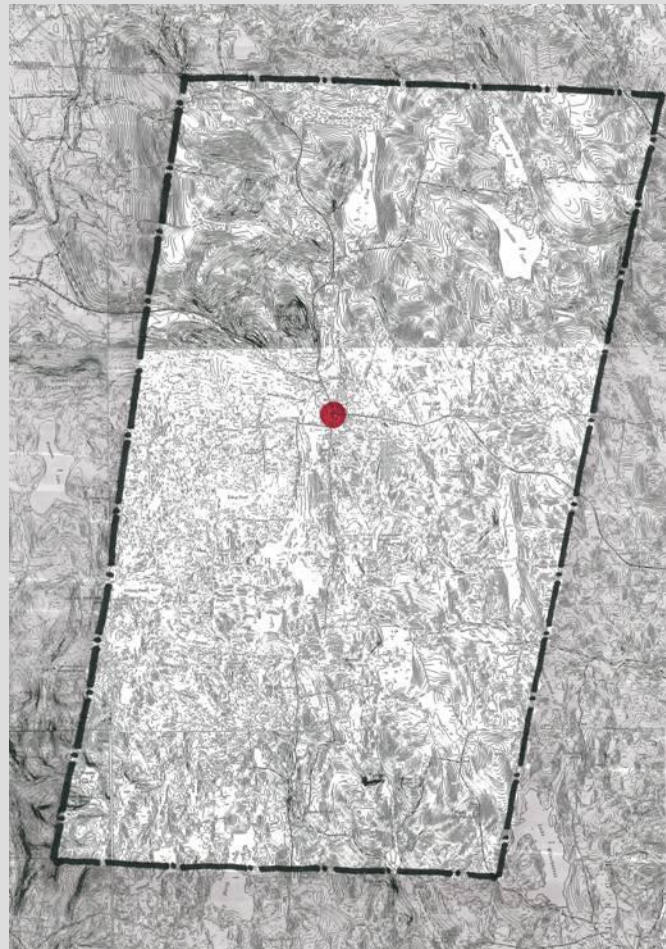


TLB



Norfolk Volunteer F.D. Location

South Sandisfield, MA



Canaan

Winsted / Colebrook

Goshen / Torrington

TLB

Proximity of NVFD to
Town Limits (48
Square Miles)

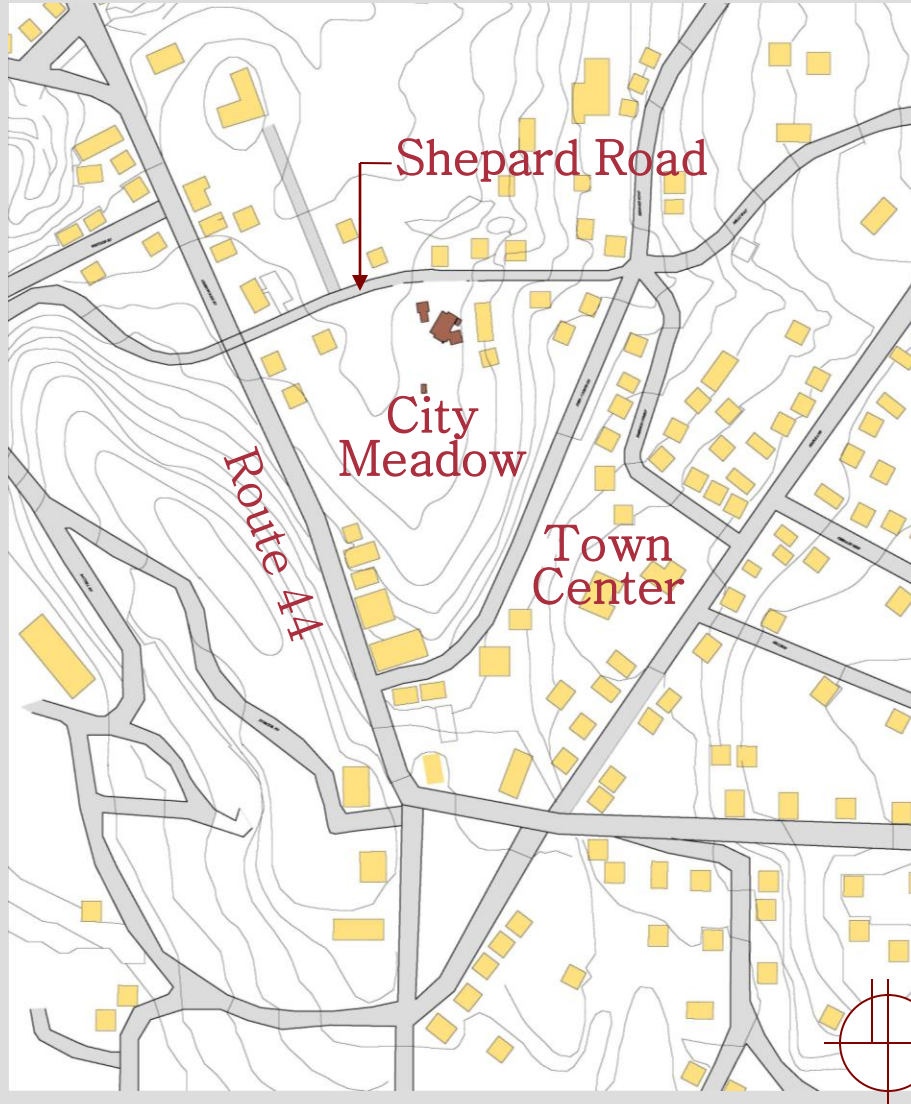
Proximity of Fire
Station to Town
Center and Areas
with Greatest
Incidence of
Emergency Calls

Response Time to
Most Densely
Developed Areas of
Town

Maintain Coverage
with Mutual Aid
Providers

No Property
Acquisition Costs

Existing Conditions



Development in
Town Center,
including
Cultural and
Civic Buildings

Development
Along Route 44
and Route 272
Corridors

Proximity to
Haystack
Mountain and
Less Densely
Populated Areas

Existing Conditions



Current Building Does Not Enhance the Fabric of the Street

Circulation is Confusing and Prone to Conflicts

Site Boundaries, Setbacks and Wetland Buffers Limit Available Land

Close Relationship to Residential Properties Creates Design Challenge of Being a Good Neighbor

Building Siting Can Improve Function, Efficiency and Comfort

Existing Conditions

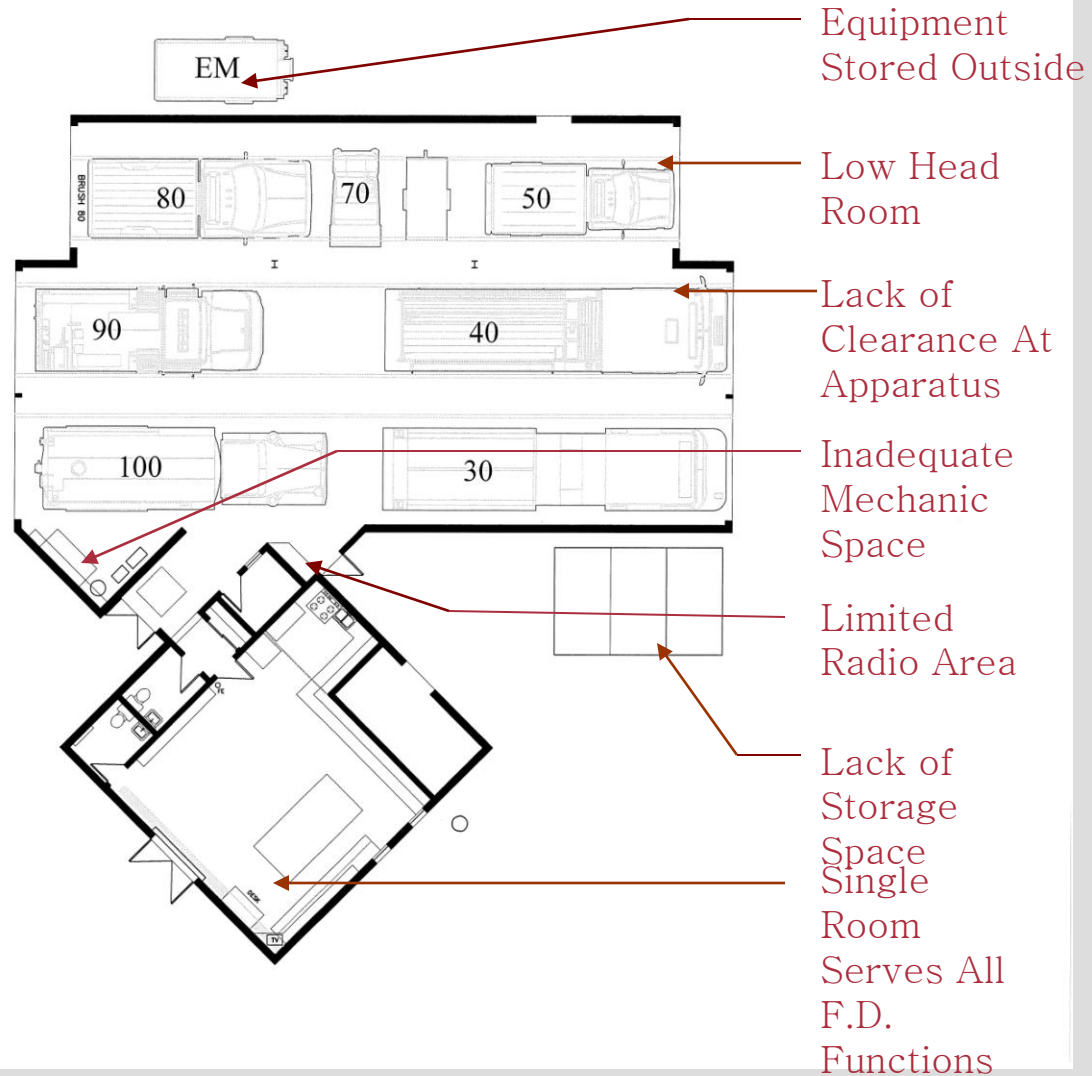
Current Space Does Not Allow Necessary Training

Lack of Space Results in Equipment Stored on Trucks

ATV Not Able to be Stored on Trailer

No Private Meeting or Office Space

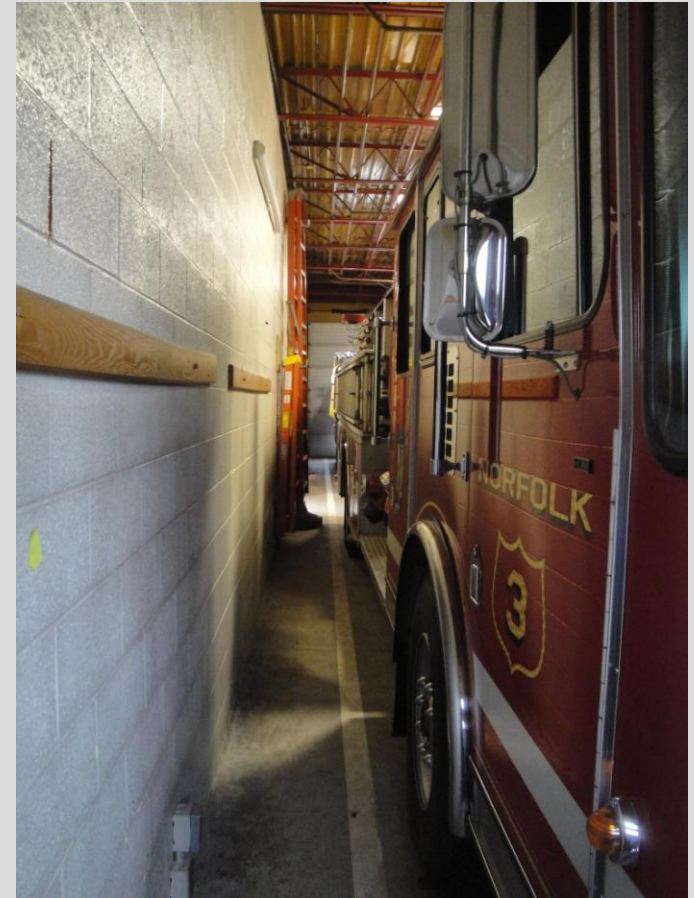
No Handicapped Accessibility



TLB

Existing Conditions

Apparatus Bays



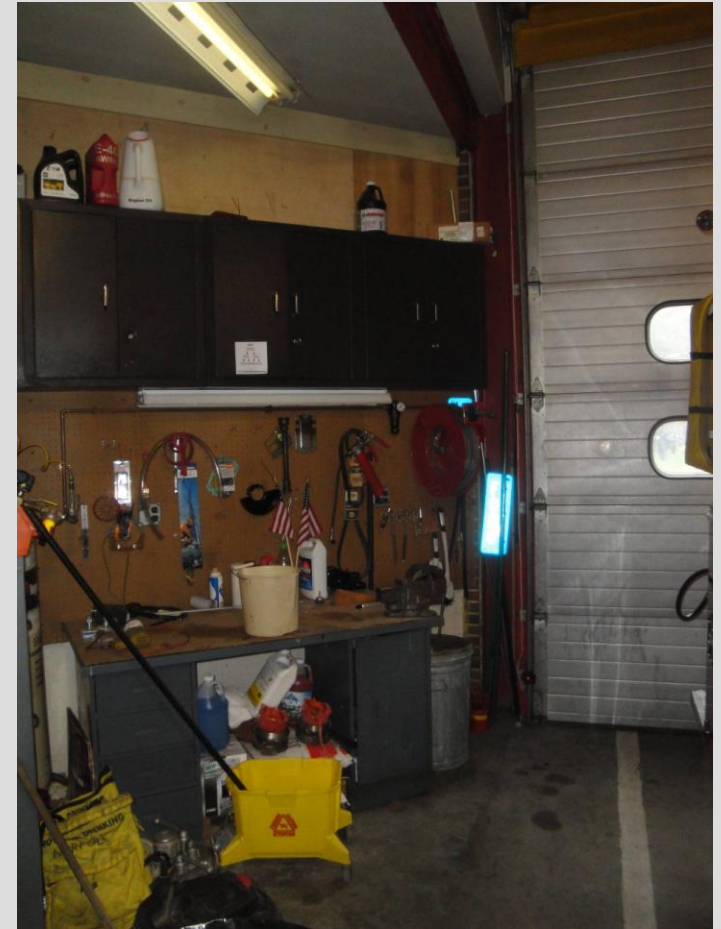
Limited Space Within the Apparatus Bay Makes Maneuvering and Maintaining Vehicles Difficult and Results in Inefficiencies, Safety Issues and Inability to Meet Current Standards

TLB



Existing Conditions

Apparatus Bays



There is No Dedicated Space for a Radio Room / Dispatch. As a Result, When Regional Dispatch Goes Down, NVFD Dispatch Occurs in Noisiest Part of Building. Work Space is Shared by All NVFD Apparatus and Equipment Functions.

TLB



Existing Conditions

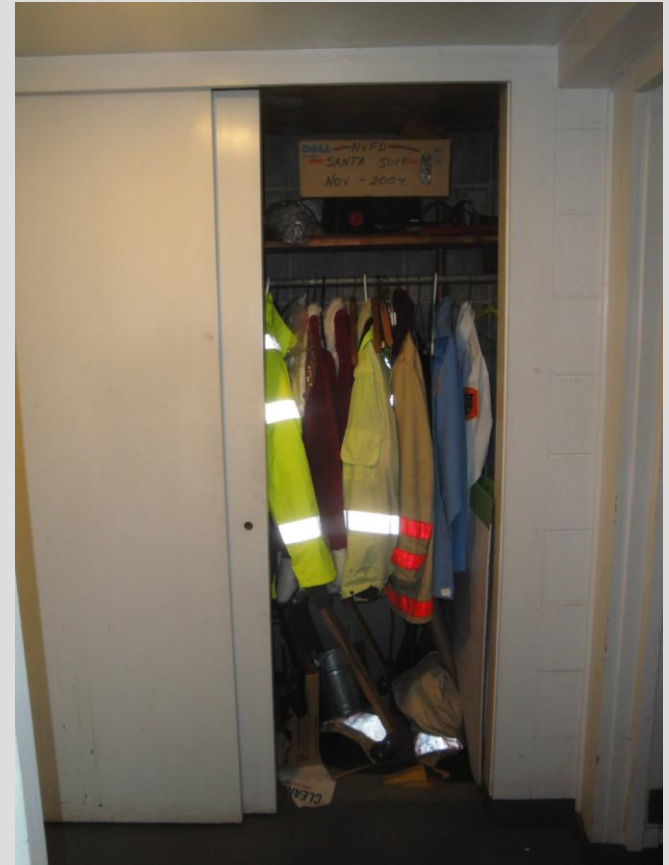


Multi-Purpose Room Serves as Training Space, EOC, Ready Room, Meeting Room and All Other Department Functions. There are No Private Office or Meeting Spaces. Much of the Training Occurs in the Bays.

TLB



Existing Conditions



Storage is Scattered Throughout the Building and the Town. Current Property Includes Two Sheds and Marginally Accessible Attic, and Additional Storage and Equipment are Located at Other Town Buildings.

Existing Conditions



During Times of Town-Wide Emergency, Apparatus is Displaced to Make Space for Emergency Operations. Also Note the Shared Space for Turn-out Gear, Co2 Bottle Storage and Mixed Hazard Storage.

TLB



Existing Conditions



Lack of Space to Assemble the NVFD Necessitates the Use of the Apparatus Bays, Which are Not Designed for this Type of Use. Apparatus is Displaced to the Weather During These Training or Meeting Times.

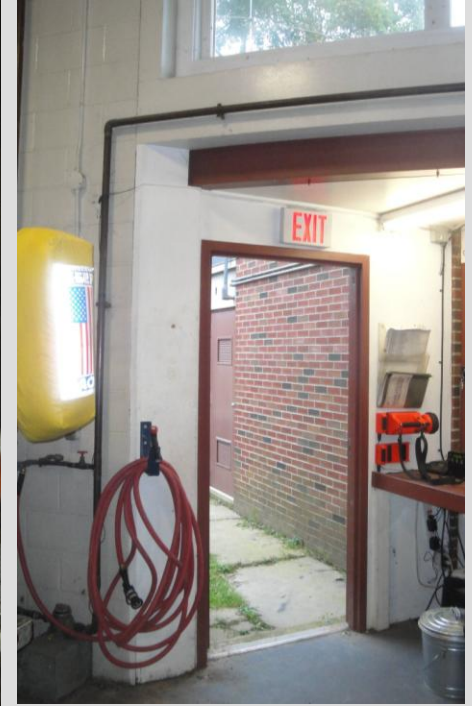
TLB



Existing Conditions



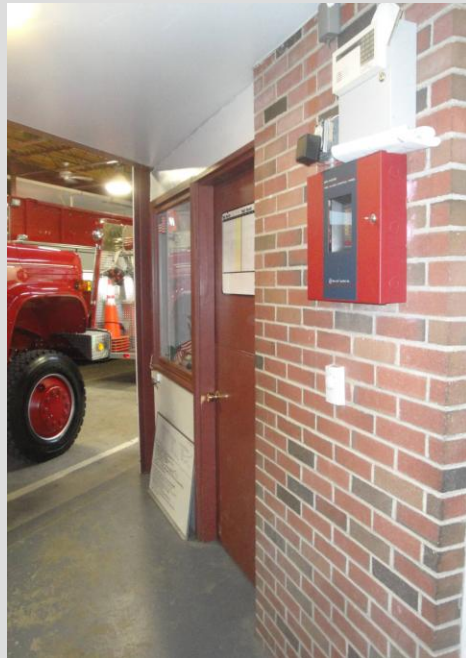
Apparatus Bays Have No Vehicle Exhaust System and Ventilation is Achieved By Means of Exhaust Fans and Open Doors. Space Has No Temperature and Humidity Control.



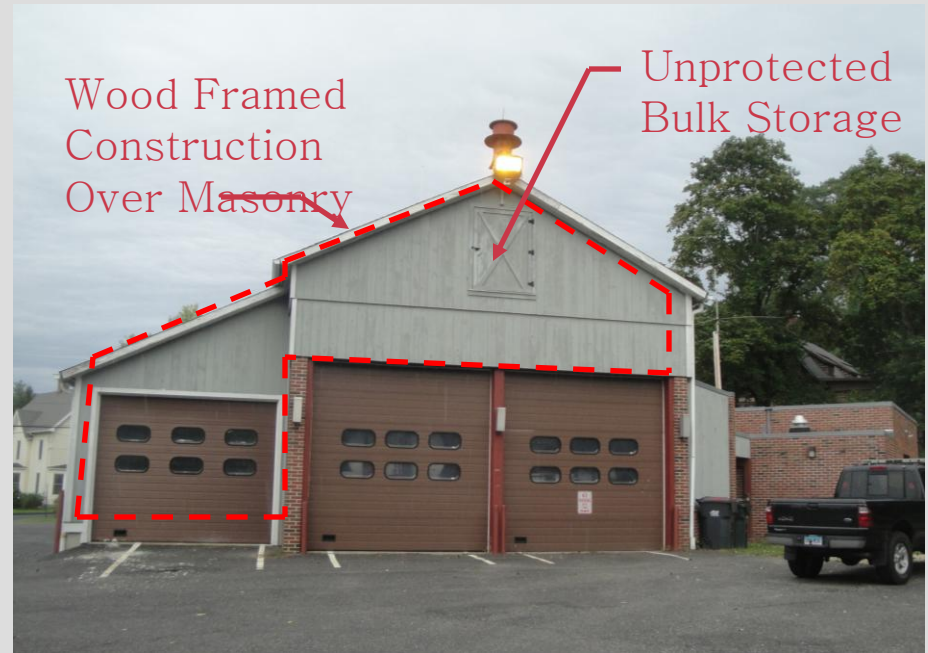
Building Has No Vestibules or Air Locks to Separate Conditioned Space From Outdoors or Unconditioned Space.

Existing Conditions

Code Considerations



No Fire Separations
Between Vehicle Space
and Administrative
Areas



Wood Framing Mixes Non-Combustible
Construction with Combustible Construction
and Limits Maximum Area of Building
Allowed by Code

Unprotected Bulk Storage Above Vehicles,
Located in the Combustible Area of the
Building

TLB

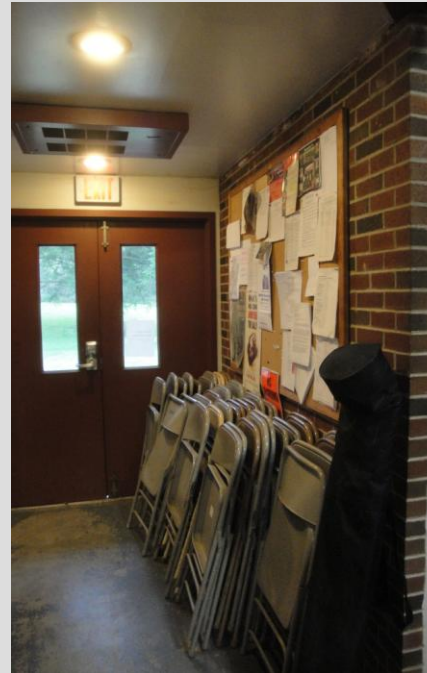


Existing Conditions

Code Considerations



Non-Compliant Kitchen Exhaust System



Lack of Storage Results in Obstruction of Egress Paths



Building is Not Handicapped Accessible, Including Steps at Entry / Exits, Toilet Rooms and Split Level Building.

Existing Conditions



Building's Relationship to the Street and its Architectural Style is Neither Civic nor Residential in Scale and Presence

TLB



Existing Conditions



“Former Ambulance



“Existing Brick Wing”



“Existing Apparatus Bays”



“Existing Sheds”



TLB



Existing Conditions



Norfolk's Context is
Both Man-Made and
Natural



TLB





Planning Considerations

TLB





Applicable Codes and Standards

Connecticut State Building and Fire Codes

Americans with Disabilities Act

NFPA 1500 Fire Department OSHA Program

NFPA 1581 Fire Department Infection Control Program

NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments.

Occupational Safety and Health Administration (OSHA)

UEFC 4-730-10 Fire Stations

TLB

Λ

Program Summary

		Area per Space (square feet)	Number of Spaces	Total Area (square feet)	Total Area Existing (square feet)
A. APPARATUS and UTILITY SPACES					
1	Apparatus Bays				
a	Engine 30 (16 x 40)	640	1	640	492
b	Engine 40 (16 x 40)	640	1	640	492
c	Engine 90 (16 x 40)	640	1	640	371
d	Tanker 100 (16 x 40)	640	1	640	371
e	Utility 50 (16 x 32)	512	1	512	274
f	Brush 80 (16 x 32)	512	1	512	322
g	Utility Trailer Bay (16 x 20)	320	1	320	96
h	Unit 70 / Trailer (16 x 20)	320	1	320	96
i	EM Trailer (16 x 20)	320	1	320	0
j	Future Pick-up Truck (16 x 20)	320	1	320	0
k	Future Boat on Trailer (16 x 20)	320	1	320	0
2	Hose Drying Space	200	1	200	0
3	Laundry	120	1	120	0
4	O2 and Bottle Storage	190	1	190	0
5	Work Bench / Mechanic's Storage	120	1	120	50
6	Secure Storage	200	1	200	0
7	General Storage	200	1	200	Outbdgs and Attic
Total Apparatus / Utility Spaces				6,214	2,564

TLB



Program Summary

		Area per Space (square feet)	Number of Spaces	Total Area (square feet)	Total Area Existing (square feet)
B.	TRAINING and SUPPORT AREAS				

8	Training / Meeting Room	575	1	575	495
9	Table and Chair Storage	150	1	150	0
10	Kitchen	400	1	400	62
11	Day Room / Ready Room	240	1	240	0
12	Radio Room	120	1	120	20
13	Offices	120	3	360	32
14	Physical Training Room	200	1	200	0
15	Men's Locker Rooms / Showers	160	1	160	0
16	Women's Locker Rooms / Showers	120	1	120	0
16	Toilet Rooms	175	2	350	70
17	General Storage	250	1	250	10
Total Training and Support				2,925	689

C.	BUILDING SUPPORT SPACES				
-----------	--------------------------------	--	--	--	--

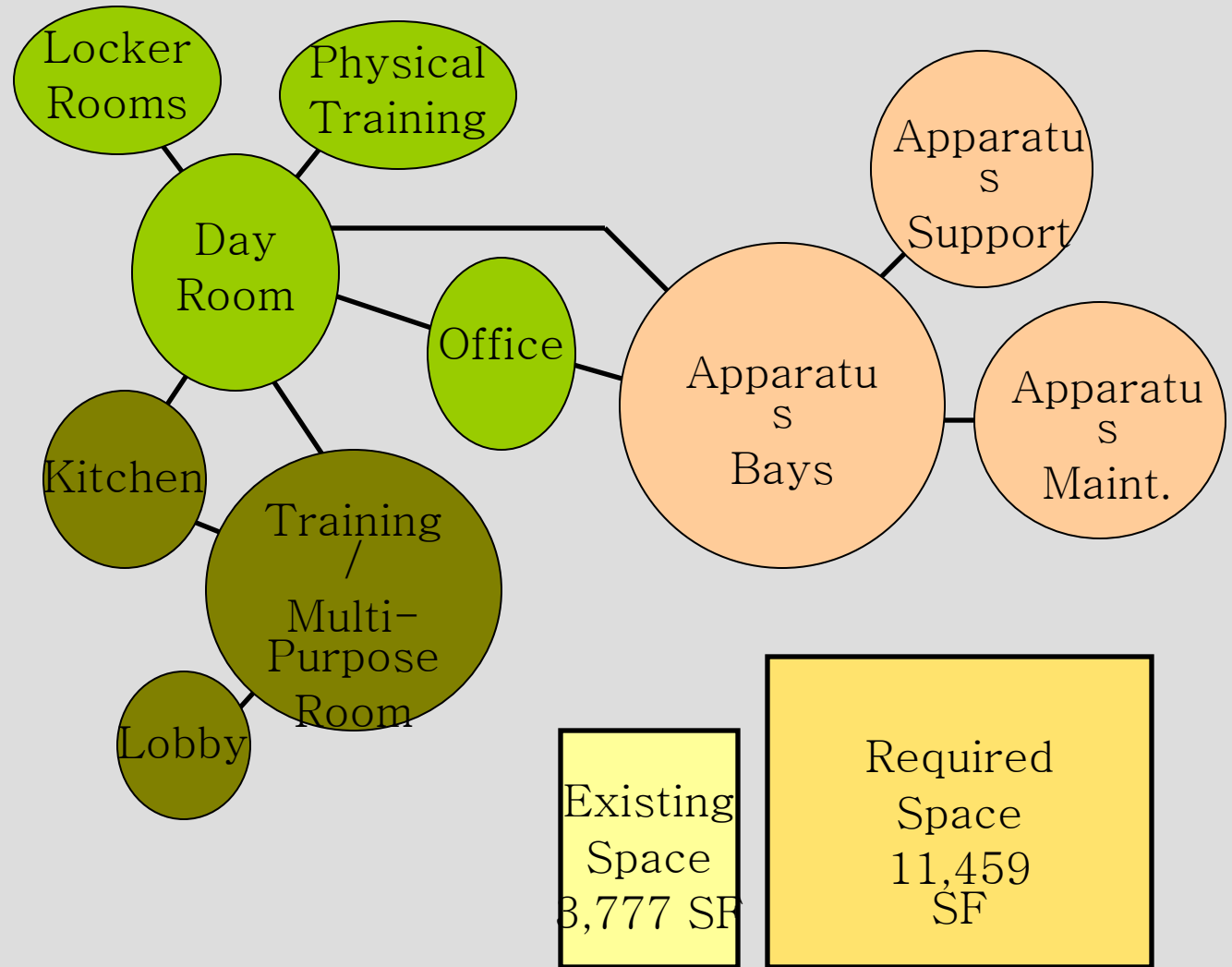
18	Mechanical Room	150	1	150	93
19	Telephone / Electrical Room	80	1	80	0
20	Sprinkler / Water Service Room	80	1	80	0
21	Custodial Closets	50	2	100	0
Total Building Support				410	93

Total Program (Net) Space	9,549	3,346
Efficiency (80%)	1,910	431
TOTAL SPACE (Gross)	11,459	3,777

TLB



Relationship Diagram



TLB



Facility Benchmarking

Community	Land Area (Square Miles)	Population	Station Size (Square Feet)	Comments
Norfolk	46.7	1,666	3,777	
Kent	49.5	2,962	15,000	
Haddam	46.7	7,635	15,500	+ 3 Satellite Stations (total +/- 6,000 SF)
Lyme	33	2,099	6,500	+ Additional Station in Hamburg
Hartland	34.5	2,082	4,100	Spread Over Two Stations
Colebrook	33	1,540	6,315	

Yellow Boxes Represent Communities of Similar Land Area and Population that have Recently Upgraded Facilities to Meet Current Standards

Blue Boxes Represent Communities of Similar Land Area and/or Population that have Maintained Older Facilities.



Conceptual Design Options

TLB



Conceptual Design – Option A



Advantages:

- Drive-Through Bays
- Reuse of Existing Apparatus Bays
- Clean Interior Circulation
- Extends Smaller Scaled Structure Toward the Street

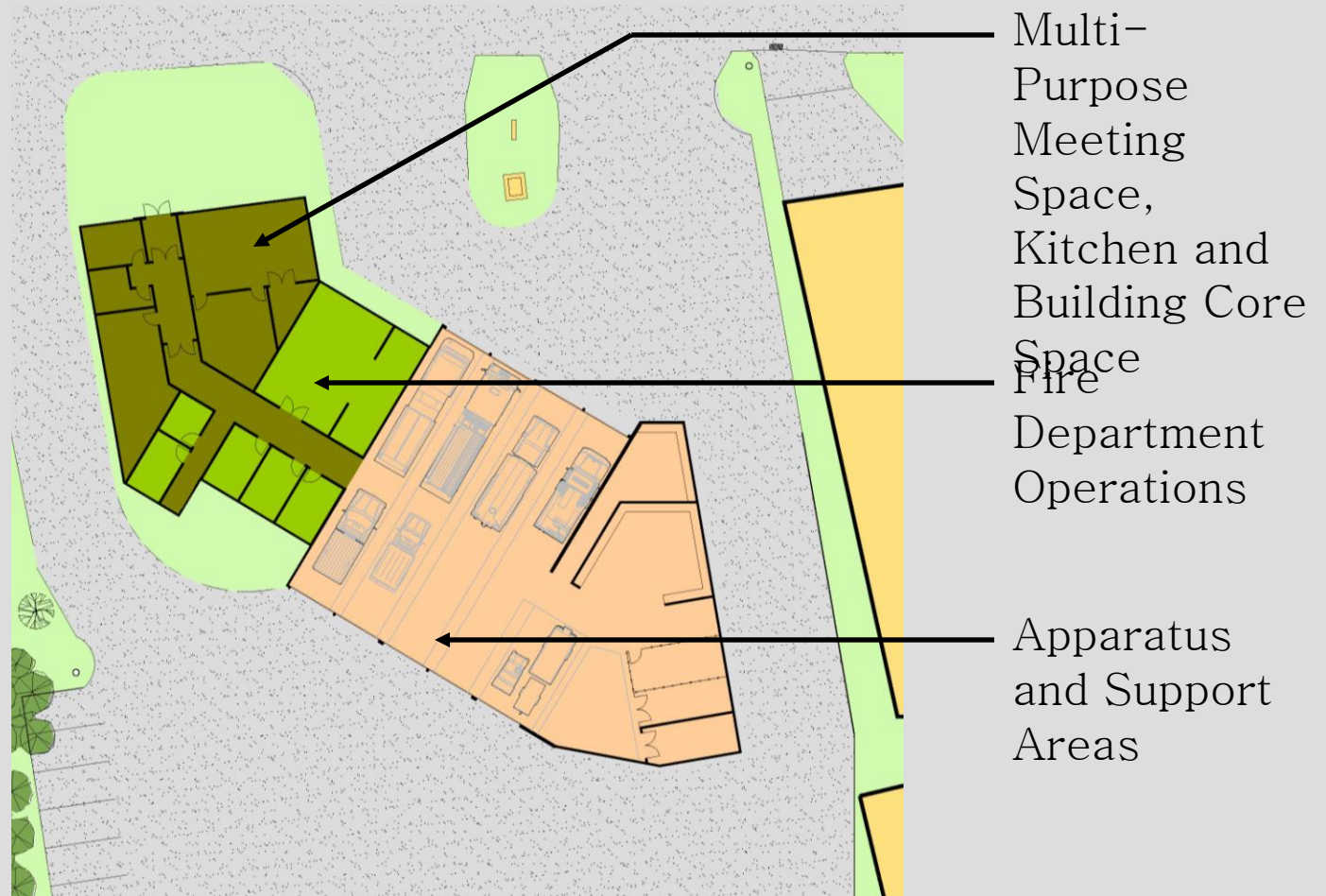
Disadvantages:

- Limited Expandability
- Significant Site Coverage
- Difficult Site Circulation

TLB



Conceptual Design – Option A



TLB



Conceptual Design – Option B



Advantages:

- Nicely Scaled Presence on Street
- Apron on West Side of Building
- Compact, Yet Expandable Layout
- Reuses Police/Ambulance Building and Brick Wing

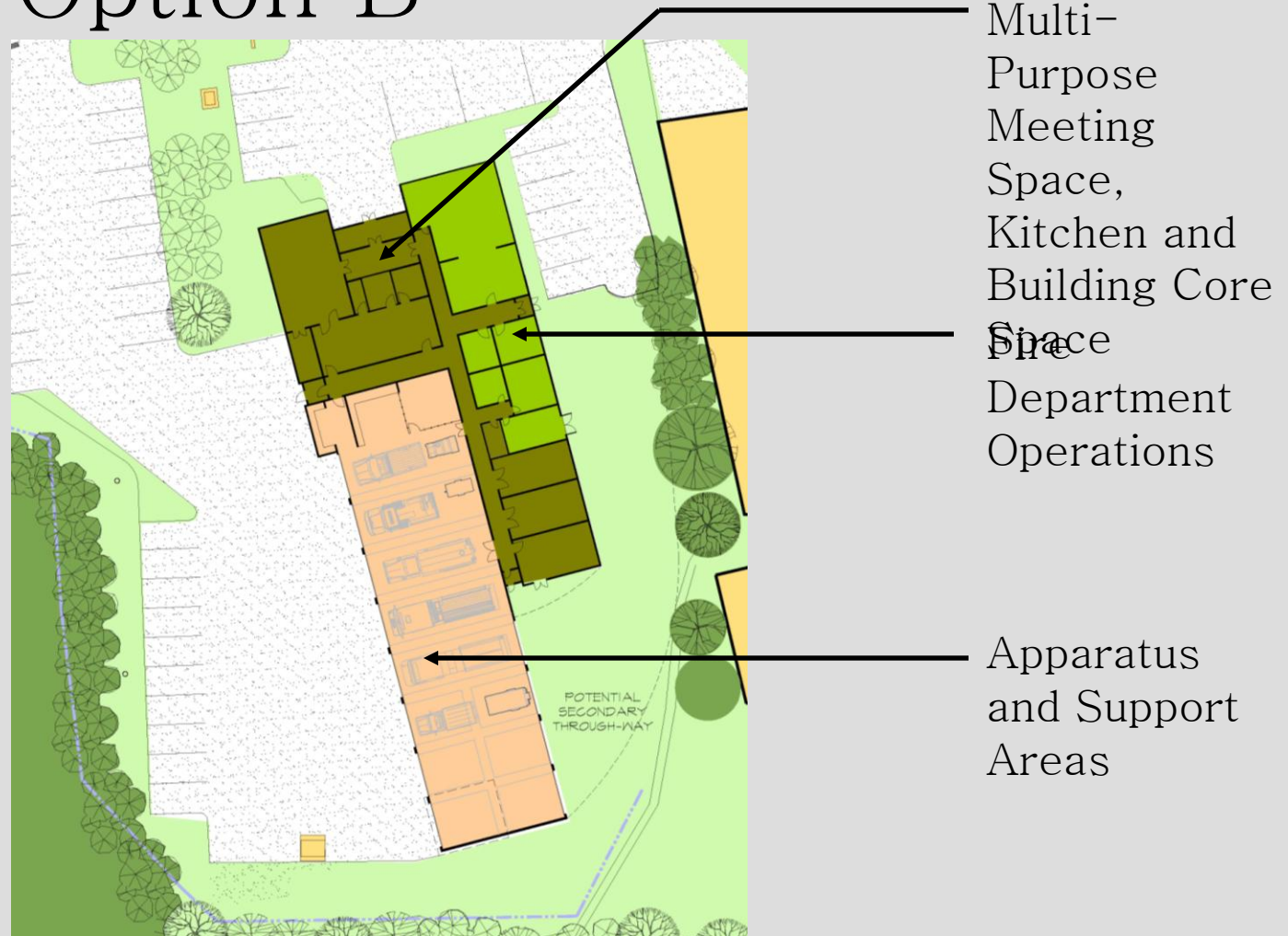
Disadvantages:

- Requires Off-Site Swing Space
- Limited Drive Through Bay Opportunities

TLB



Conceptual Design – Option B



TLB



Conceptual Design – Option C



Advantages:

- Appropriate Presence on the Street
- Clear Circulation Patterns
- Allows On-Site Swing Space
- Multiple Bay Configurations are Possible:
 - Courtyard
 - Drive-Through, Stacked East
 - Elongated to the South

Disadvantages:

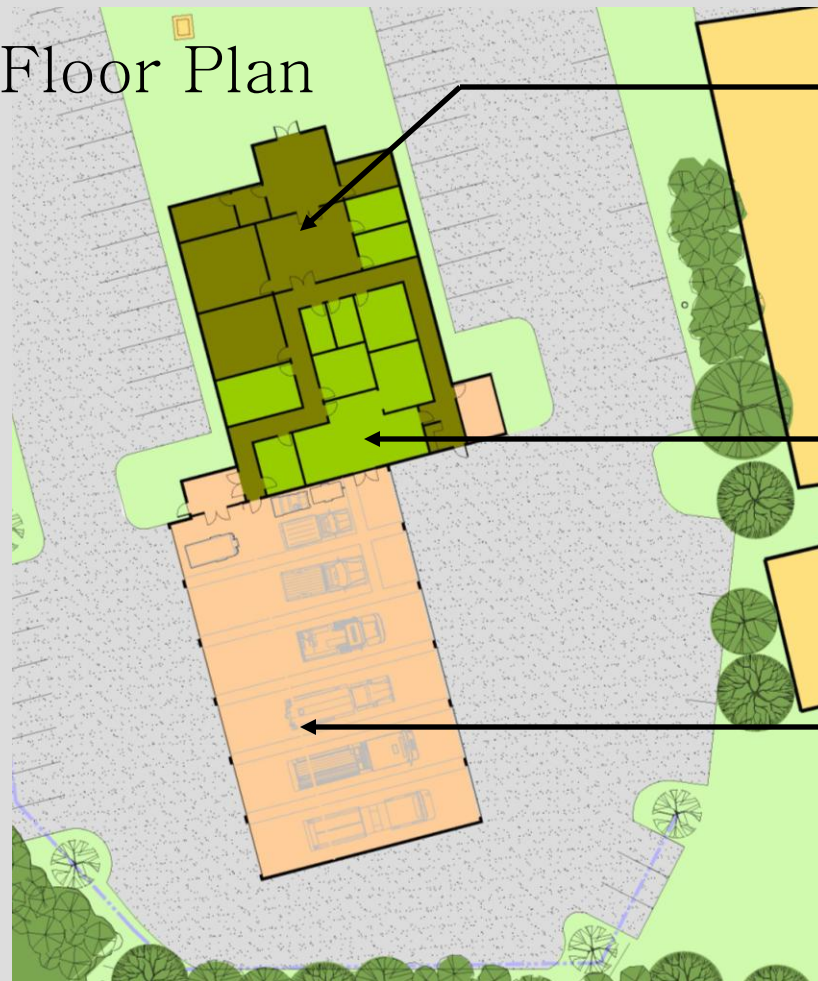
- Significant Site Coverage
- Most Costly Option

TLB



Conceptual Design – Option C

Floor Plan



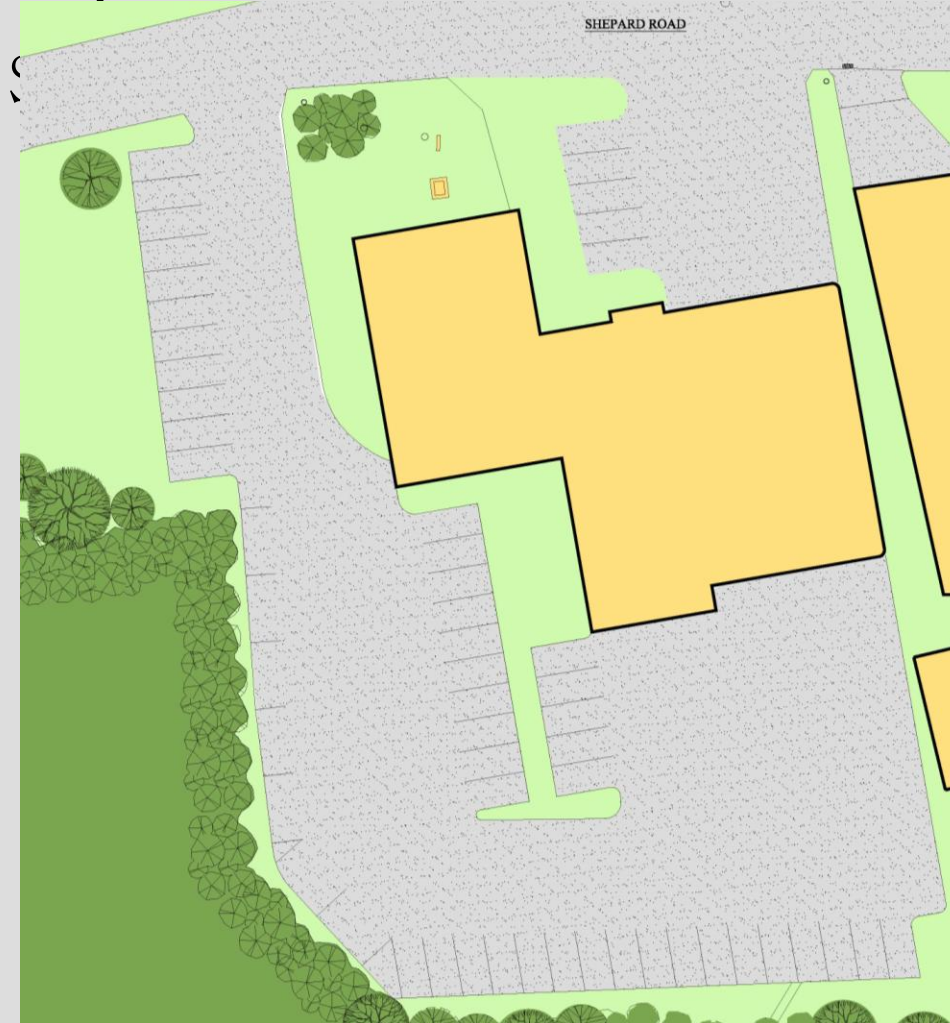
Multi-Purpose Meeting Space, Kitchen and Building Core
Fire Department Operations

Apparatus and Support Areas

TLB



Conceptual Design – Option D



Advantages:

- Clean and Simple Building and Site Layout

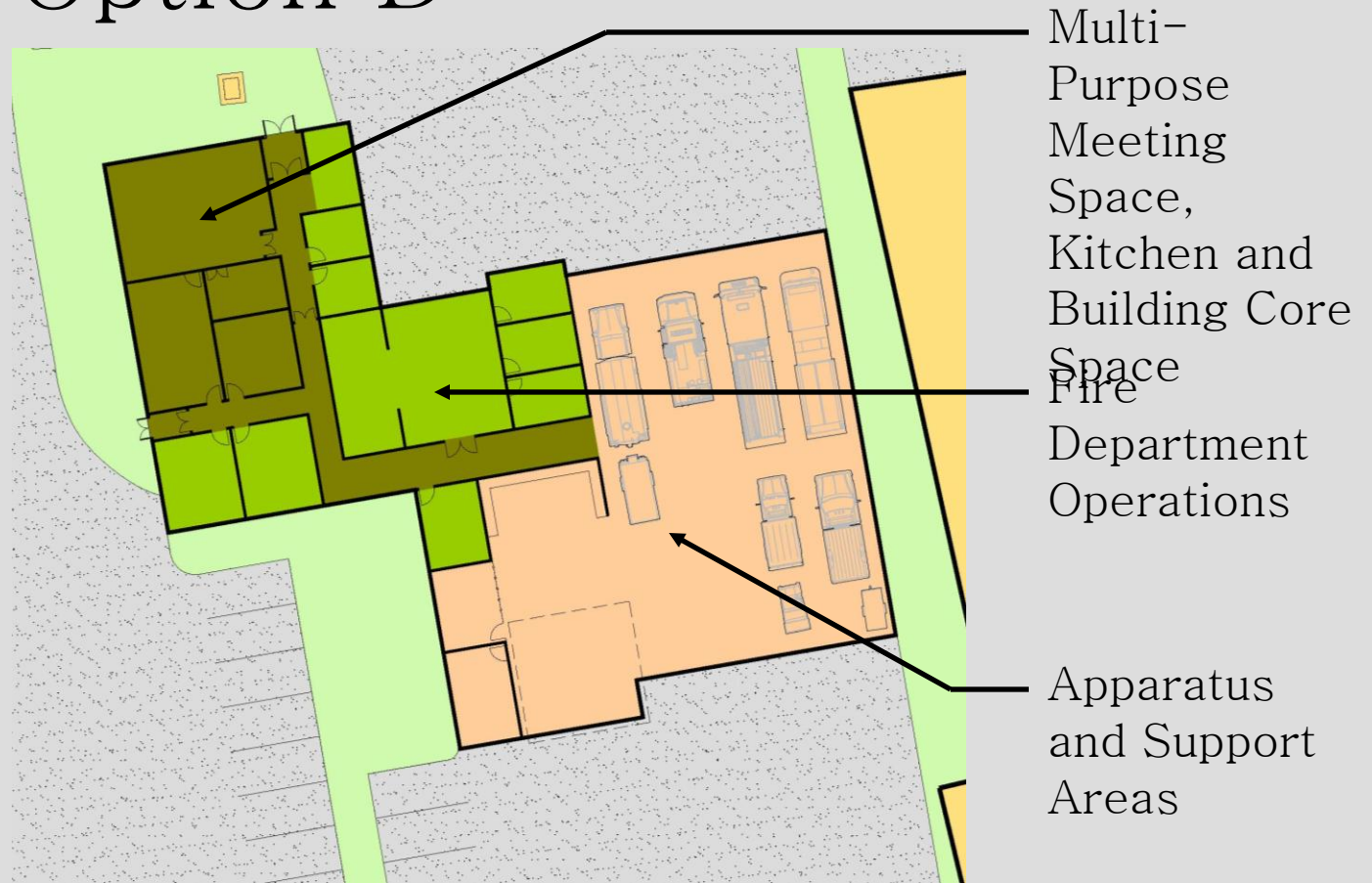
Disadvantages:

- Requires Off-Site Swing Space
- Apron is on North Side

TLB



Conceptual Design – Option D

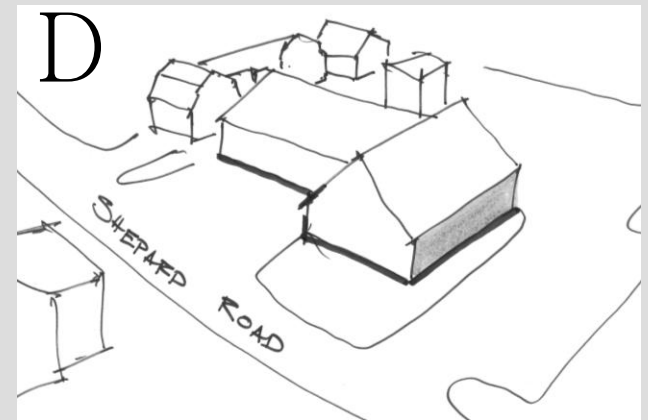
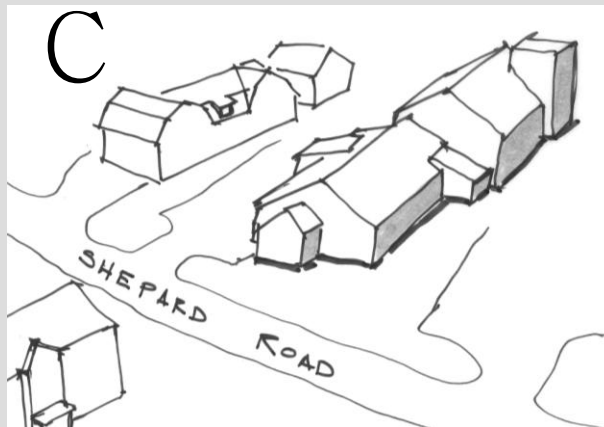
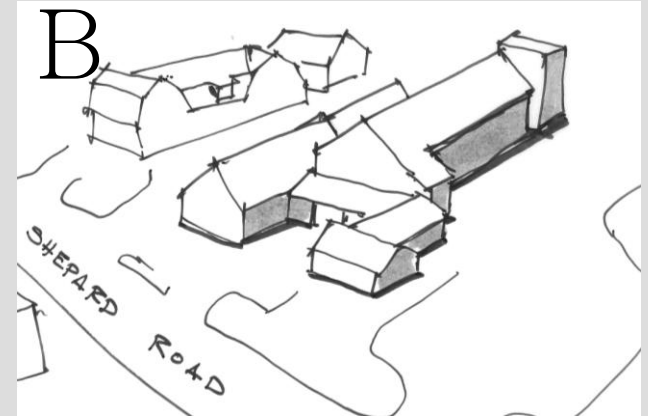
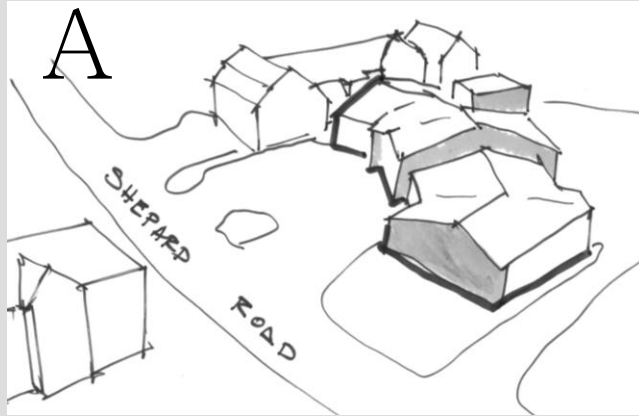


TLB



Conceptual Design

Probable Cost Summary



*Total Cost per Square Foot: \$ 380 - 405/ SF;
Inclusive of Construction, Site Development, Swing Space
Provisions, Fixtures, Furniture and Equipment and all Soft
Costs such as Fees, Testing Printing and Publishing, Etc.*



Funding Options

TLB





Potential Funding Sources

Municipal Bonds and Capital Expenditures

CT DECD STEAP Grant

USDA Rural Development Grants

CT Trust for Historic Preservation – Vibrant
Communities Initiative

Department of Homeland Security

TLB

^



TLB



NVFD
Q and A