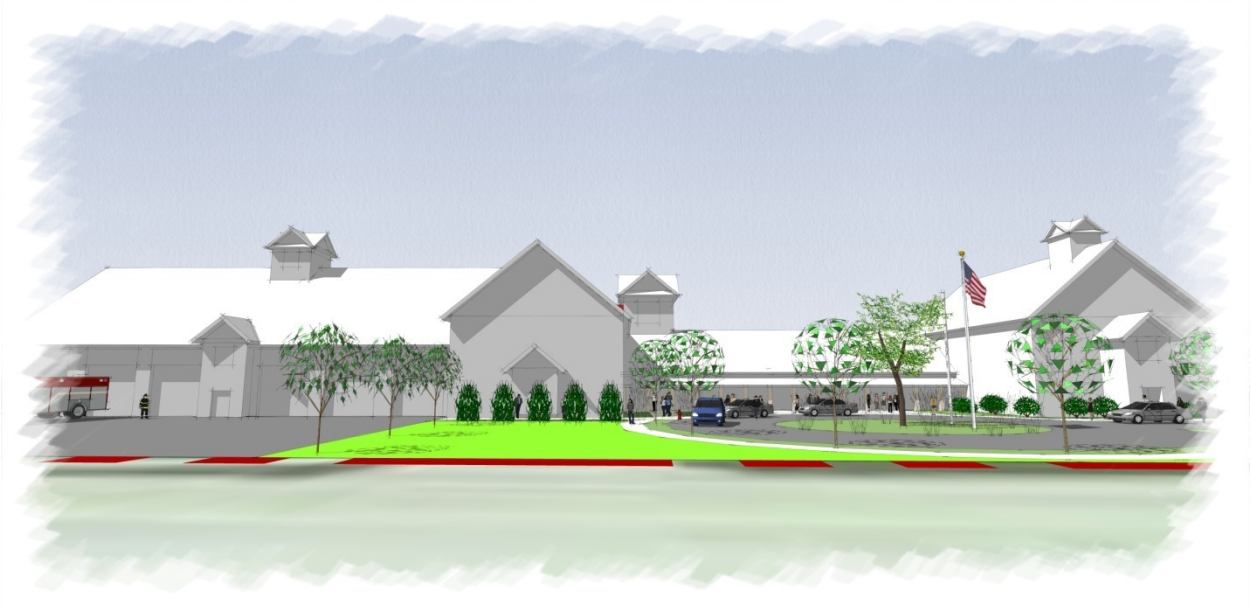
KILLINGTON FIRE STATION

Killington, Vermont



FEASIBILITY STUDY

FINAL REPORT

December 5, 2014

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Town of Killington, VT

Seth Webb, Town Manager
Chet Hagenbarth, Department of Public Works

Killington Fire and Police Department

Gary Roth, Fire Chief
Steven Finer, President
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INTRODUCTION AND BACKGROUND

INTRODUCTION

On September, 2013, the Town of Killington commissioned Dore & Whittier Architects, Inc. to conduct a "Fire Rescue & Police Services Facilities Study" to assess what is required to provide adequate facilities for the Killington Volunteer Fire Department and Police Department.

For various reasons, the facility has reached the limit of its program and in instances, useful space to accommodate the needs of the department it currently houses. The facility has become outdated, unsafe, non-code compliant, not energy efficient, undersized and requires numerous repairs. This report outlines the present condition of the current facility, the suitability for the intended purpose, the ability to accommodate the current program requirements, and design options intended to guide decision making for the future facility development.

As stated in the Project Proposal our focus was on the evaluation of the programmatic needs of each department as well as an investigation of the expanding the facility either by virtue of a renovation/addition, new addition, or all new construction as well as to identify deficiencies and prioritize for future upgrades. We also investigated alternate sites to determine if the program would work better than utilizing the existing fire station site.

Town of Killington, Vermont Brief History

Killington, Vermont,the heart of the Green Mountains,is a town in Rutland Countychartered in 1761. The town has was renamed Sherburne in 1800 and then returned to Killington in 1999. Located in central Vermont, the town is known for skiing, mountain biking and tourism.

- County: Rutland County
- Area: Total area 46.9 square miles
- Population: 811 per 2010 US Census,
- Seasonal Population: up to 16,000 on a busy weekend (winter/ summer)
- Households: 500 - per 2010 US Census
- Median Age: 42 per 2010 US Census
- Median Household Income: $47,500 per 2010 US Census

DOCUMENTATION

This report is based on information gathered by Dore & Whittier Architects, Inc. and its consultants through visual observations of the buildings and sites, and discussions with Killington Fire and Police Departments in fall of 2013.

During the study, a general review of current codes was performed per Federal Handicap Accessibility Guidelines – ADAAG (ADA), State of Vermont Building Codes which includes the International Building Code (IBC), Mechanical and Electrical Code.

EXECUTIVE SUMMARY

OVERVIEW

The Killington Fire Station, also known as the Sherburne Volunteer Fire Department and Killington Fire & Rescue, is a two story building located on Killington Road in Killington, Vermont. The building was originally constructed in 1974 of masonry concrete units and wood studs; however, the Department has been serving the Killington Community since 1955. In 1984, the first renovation, the Middle Bays, was constructed. In 1998, the second renovation was built, which added an additional apparatus bay to the structure. Refer to the assessment for current conditions of the fire station.

The Town of Killington recently changed from a constable law enforcement organization to a full time police department. The Police Department co-operates with the Vermont State Police and currently operates out of the Town Garage.

The existing Killington Fire Station is located at 1973 Killington Road, at the intersection of Killington Road and Miller Brook Rd.

Location Map – Town of Killington, Vermont

Site Aerial Map – Existing Killington Fire Station

This feasibility study is intended to provide an independent study of the current building conditions, and a review of long-term programming for both the fire department and police department. In October 2013, our team of Architects, Engineers and Consultants visited the facility and conducted a site and building assessment that will provide valuable information for future development.

A space needs analysis/ programming was developed through numerous meetings with the Town of Killington Fire and Police Departments along with Town of Killington Town Manager and Department of Public Works Manager.

Conceptual site and floor plans were developed for four options as summarized below. Options includecapital improvements, renovation and addition to the existing fire station, demolition and cosntruction of a new facility as well as locating the facility at an alternate site.

Option 1 **Capital Improvements Only**

Capital Improvements to Existing Building; Rebuild Existing Fire Station 2
Capital Improvements – 6,738 SF
New Building Construction – 1,498 SF
New doors and windows, sprinklers and ADA upgrades

Option 1a **Capital Improvements + New Apparatus Bay**

Capital Improvements to Existing Building, New Apparatus Bay at Existing Fire Station 1
Capital Improvements – 6,738 SF
New Building Construction – 2,643 SF
New doors and windows, sprinklers and ADA upgrades

Option 2 Renovation Addition with Police

Renovation to Existing Building with Additional Apparatus Bay; New attached Police Station - Three stories
Demolition – 5,000 SF
Renovation – 2,437 SF
New Building Construction – 15,288 SF
Extensive Demolition / Renovation

Option 2a Renovation Addition without Police

Renovation to Existing Building with Additional Apparatus Bay – Three stories
Demolition – 5,000 SF
Renovation – 2,437 SF
New Building Construction – 13,049 SF
Extensive Demolition / Renovation

Option 3 New Station with Police (3 stories)

Demolition of Existing Building, New Construction Fire and Police Station – Three stories
Demolition – 5,000 SF
New Building Construction – 16,609 SF

Option 3a New Station without Police (3 stories)

Demolition of Existing Building, New Construction Fire Station, Three stores
Demolition – 5,000 SF
New Building Construction – 14,980 SF
Plan allows for future addition of Police

Option 3b New Station without Police (2 stories)

Demolition of Existing Building, New Construction Fire Station, 2 Story
Demolition – 5,000 SF
New Building Construction – 15,563 SF
Plan does not allow for future addition of Police

Option 4 New Fire Station at Alternate Site Phase 1, Phase 2, and Phase 3

Construction of a new Public Safety Facility located at an Alternate Site
New Building Construction – 16,705
Includes Training Room for future Police Station
Site Design allows for Phasing of a future Police Station and possible Town Hall

It is the Design Team's recommendation that all Option 4 would meet the necessary requirements for the user. After multiple meetings with the Building Committee and Selectboard, it was decided that Option 4 is the preferred solution due to the the following:

- Meets the stated programming needs
- Provides a long term design for Public safety
- Allows for future growth of Public safety
- Works well on the alternate site
- Provides better and safer access for emergency apparatus
- Still provides excellent response times for the Town of Killington
- It allows the project to be constructed in phases
- It also allows space on the site for a future municipal use such as a Town Hall.
- Allows for the creation of a well defined Town civic center
- Locating the station on a new site will also allow the existing facility to fully function and provide little interuption in providing emergency services during construction .

The preferred Option 4 Phase 1, Phase 2 and Phase 3 site plan, floor plans, and massing studies are on the following pages.

A summary of esitmated preliminary project cost for all options is also attached.

OPTION 4 (phase 1)

ALTERNATE SITE : NEW TWO STORY FIRE STATION WITH TRAINING ROOM

- New Two-Story Fire Station and Training Room
- Conforms with the Program
- Eliminates the need to renovate Lower Station (Station No. 2)
- No Police Department, allows for future phase

SITE PLAN

PREFERRED OPTION 4

OPTION 4 (phase 1)

NEW TWO STORY CONSTRUCTION WITHOUT POLICE,

1ST FLOOR

PREFERRED OPTION 4

OPTION 4 (phase 1)

NEW TWO STORY CONSTRUCTION
WITHOUT POLICE,

2ND FLOOR

PREFERRED OPTION 4

OPTION 4 (Phase 2)

ALTERNATE SITE : BUILD POLICE STATION AND RELOCATE TRAINING ROOM

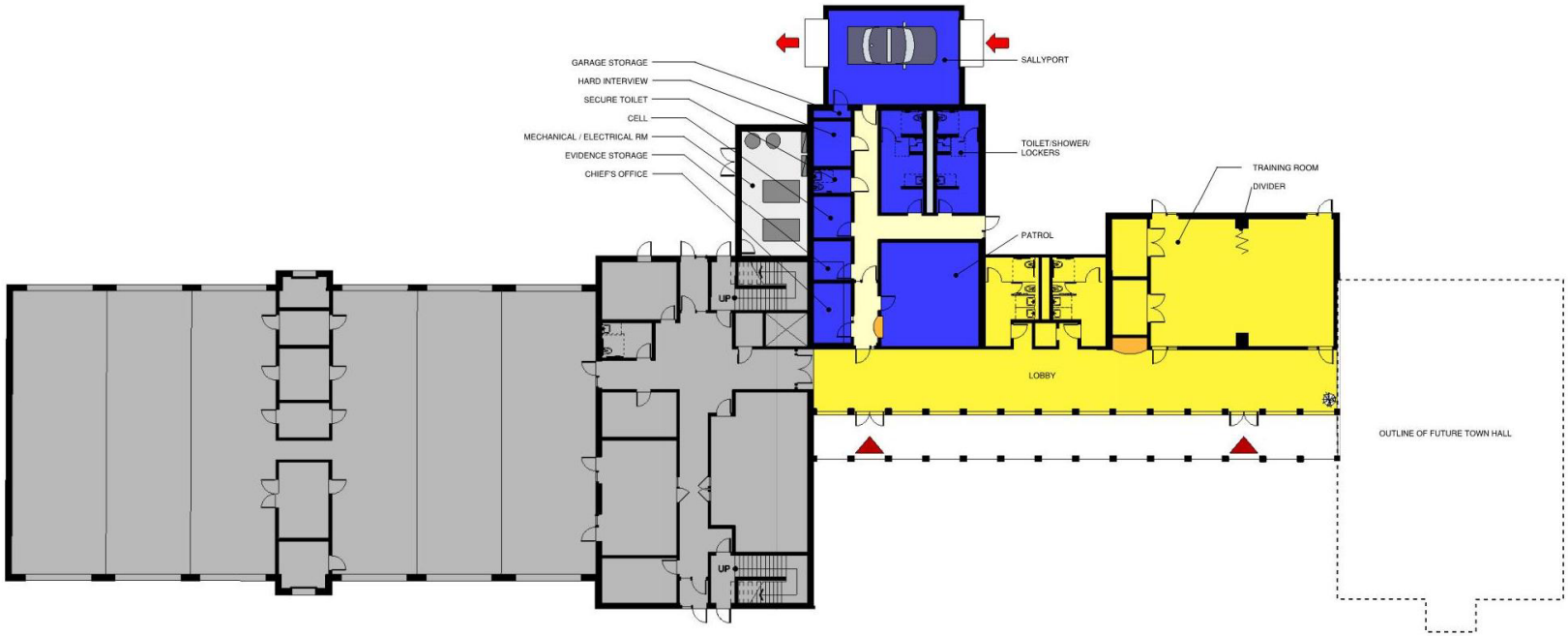
- **Addition to Phase 1 Fire Station**
- **Adds Police Station, Sally port, and relocates Training Room**

SITE PLAN

PREFERRED OPTION 4

OPTION 4 (Phase 2)

ALTERNATE SITE : BUILD POLICE STATION AND RELOCATE TRAINING ROOM



1ST FLOOR

PREFERRED OPTION 4

OPTION 4 (Phase 3)

ALTERNATE SITE : BUILD TOWN HALL

- **Addition to Phase 1 Fire Station and Phase 2 Police and Training Room**
- **Adds new two story Town Hall**

SITE PLAN

PREFERRED OPTION 4

OPTION 4 (Phase 3)

ALTERNATE SITE : BUILD NEW TWO STORY TOWN HALL

1ST FLOOR

PREFERRED OPTION 4

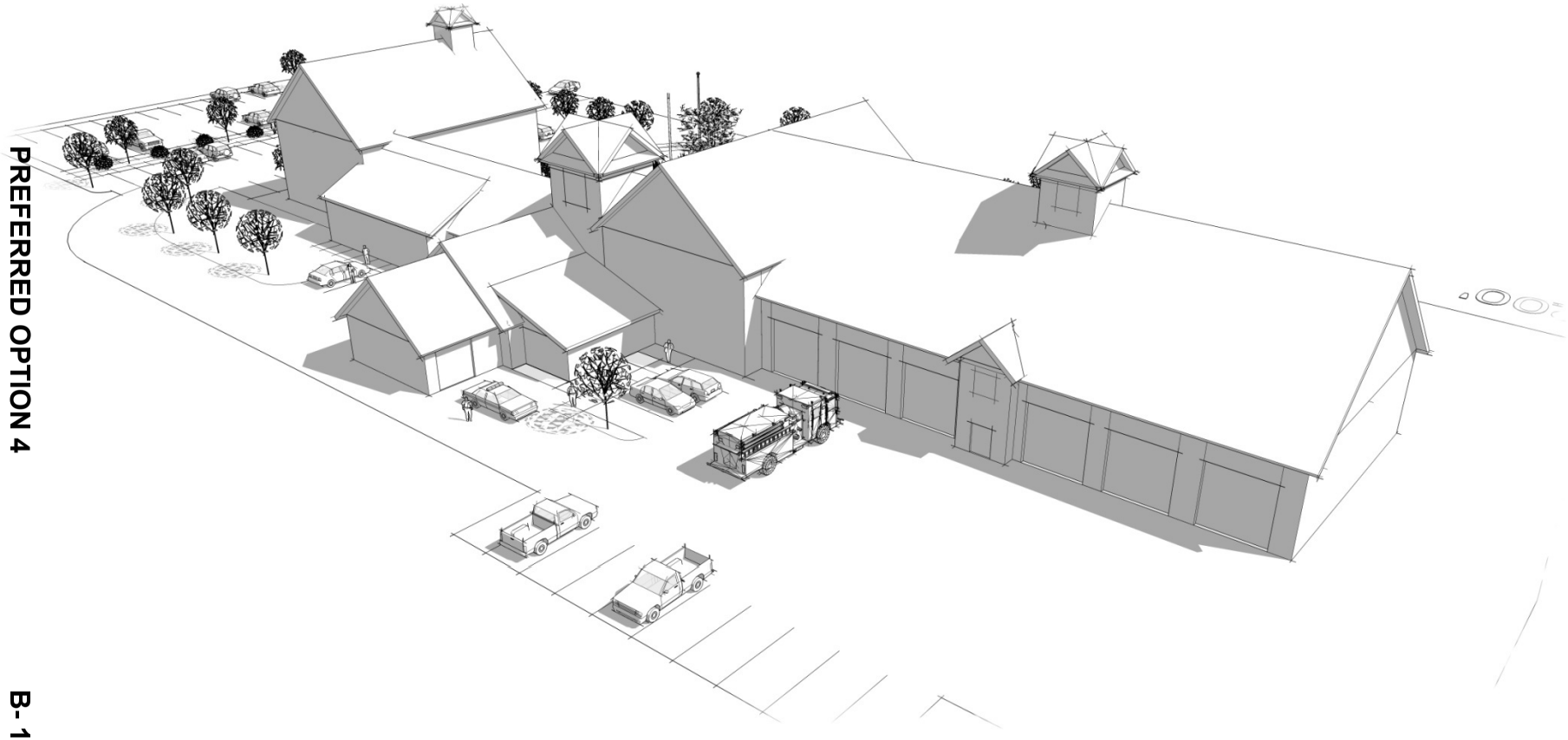
4-MASSING STUDIES

PREFERRED OPTION 4

4-MASSING STUDIES

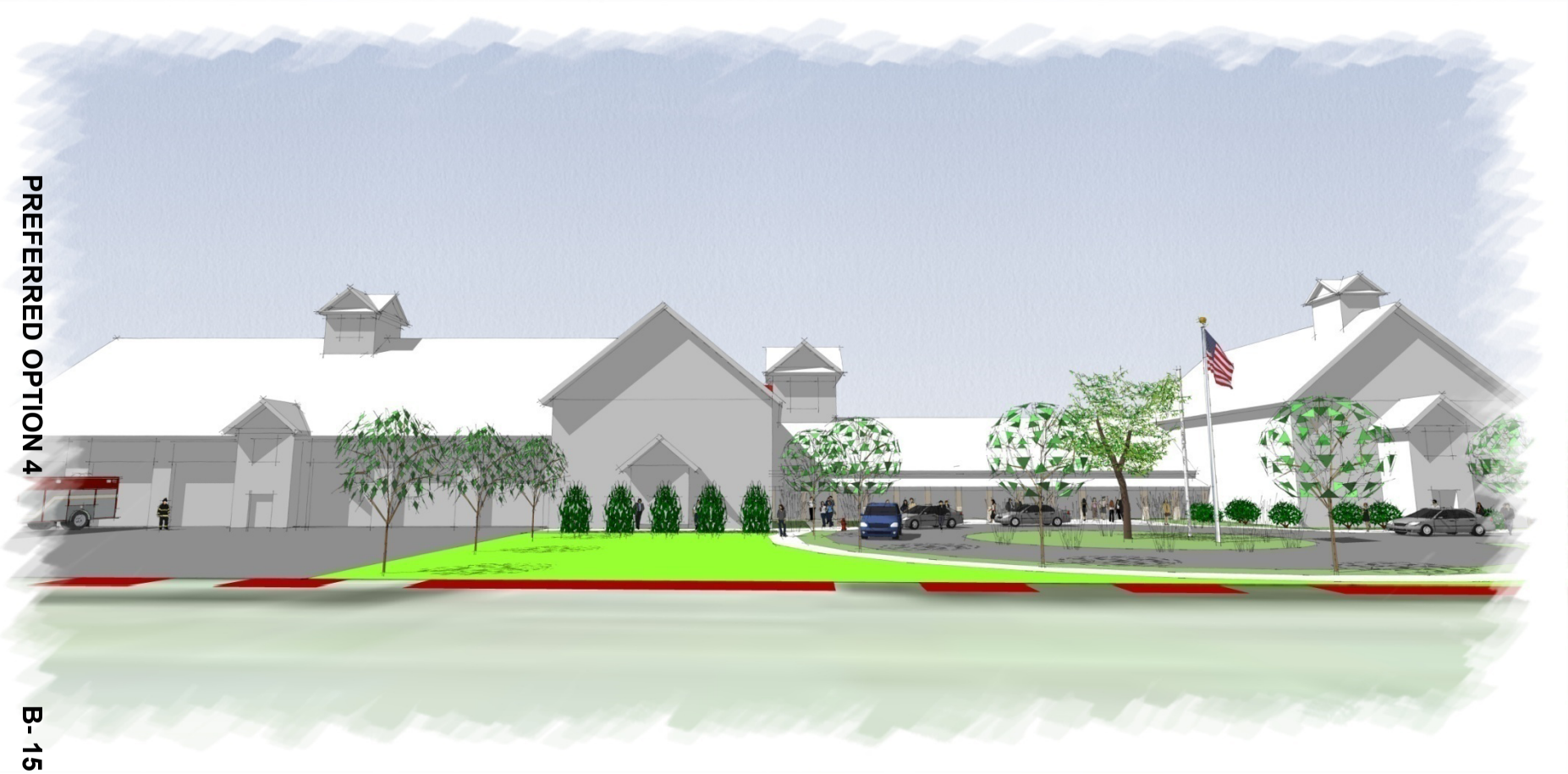
PREFERRED OPTION 4

4-MASSING STUDIES



PREFERRED OPTION 4

4-MASSING STUDIES



PREFERRED OPTION 4

OPTION 4 SUMMARY

NEW CONSTRUCTION ON ALTERNATE SITE

- PROS
  - Allows Killington to develop a Civic Center
  - Allows for continued emergency services during construction
  - Best access for Apparatus onto Killington Road
- CONS
  - Police Department to be built in Phase 2
  - Requires purchase of land (possible land swap)
  - Additional site development costs including a well and fire pump for a fire protection system

SITE PLAN

PREFERRED OPTION 4

PRELIMINARY COST SUMMARY

Options:	Sq Footage	Preliminary Cost Estimates		
9/23/2014		Range		
		Semidurable from DEW	Durable from DEW	D&W Estimate
Option 1 - Capital Improvements Only + Land and Lower Station	**8236**	**$ 2,456,569**	NA	**$ 3,445,400**
Option 1a - Capital Improvements + New Apparatus Bay + Land	**9381**	**$ 2,473,623**	NA	**$ 3,504,400**
~~**Option 2 - Renovation Addition with Police + Land**~~	~~**17725**~~	~~**NA**~~		~~**$ 7,759,501**~~
~~**Option 2a - Renovation Addition without Police + Land**~~	~~**15486**~~	~~**NA**~~		~~**$ 6,841,501**~~
Option 3 - New Station with Police (3 stories) + Land	**16609**	**$ 3,978,615**	**$ 4,452,171**	**$ 7,166,501**
Option 3a - New Station without Police (3 stories) + Land	**14980**	**$ 3,608,982**	**$ 4,036,092**	**$ 6,423,501**
~~**Option 3b - New Station without Police (2 stories) + land**~~	~~**15563**~~	~~**NA**~~		~~**$ 6,653,501**~~
Option 4 - New Fire Station at Alternate Site Phase 1 + Land	**16705**	**$ 4,390,498**	**$ 4,866,791**	**$ 6,909,000**
(partial police station as temp training room)				
Option 4a* - New Fire Station at Alternate Site Phase 2	**5568**			**$ 1,946,000**
(complete police station, training rm and public lobby)				
Option 4b* - New Fire Station at Alternate Site Phase 3	**6492**			**$ 2,667,000**
(complete town offices)				
* 2-5% annual construction escalation should be budgeted for each year subsequent phases are delayed				
Semidurabel and Durable Cost Estimates Rec'd from DEW				
Those Options struck through were no longer considered viable options				

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Estimated Project Costs		9/19/2014			
Killington Public Safety					
Killington, VT					
The following is a summary of Estimated Project Costs developed for the Killington Public Safety Study.					
The options developed are conceptual in nature and therefore the estimated project					
costs are intended to provide a preliminary order of magnitude view at the potential project costs.					
Project costs consist of estimated site and building construction costs, design and construction					
contingencies, phasing, soft costs to cover the values of the design team, owner's project manager,					
investigative services, etc and fixtures, furniture and technology costs. The project costs					
presented are in current 2014 dollars and may need to be adjusted for inflation depending on					
future construction timeframes.					
Options:	**Sq Footage**	**Est. Costs**	**Land Req.**	**Land Cost**	**Total Cost**
Option 4-Phase 1 - New Fire Station at Alternate Site	**16705**	**$ 6,209,000**	**6.93 Acres**	**$700,000**	**$ 6,909,000**
(partial police station as temp training room)					
Option 4- Phase 2* - New Fire Station and Police Station at Alternate Site	**5568**	**$ 1,946,000**			**$ 1,946,000**
(complete police station, training rm and public lobby)					
Option 4- Phase 3* - New Fire Station, Police and Town Hall at Alternate Site	**6492**	**$ 2,667,000**			**$ 2,667,000**
(complete town offices)					
*** 2-5% annual construction escalation costs should be budgeted for each year subsequent phases**					
are delayed					
Option 4- No Phasing - New Fire, Police and Town Offices - Alt. Site	**26797**	**$ 10,826,000**	**6.93 Acres**	**$700,000**	**$ 11,526,000**

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4 - New Fire at Alternate Site Phase 1							
	(w/ partial Police Station as temp Training Rm)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				14737	**new**		
Construction Costs:				**1968**	**partial buildout**		
	Site Development				$ 847,378	25% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			14737	$ 3,389,510	$230/sf	
	Partial PD Constr (training rm)			1968	$ 393,600	$200/sf	
	Building Construction Subtotal:				$ 3,389,510		
	Site and Building Construct. Costs Subtotal:				$ 4,236,888		
	Design and Estimating Contingency				$ 423,689	10% of construction	
Total Estimated Construction Cost:					**$ 4,660,576**	$ 279	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 466,058**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 932,115**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 150,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,660,576**		
	Project Contingency				**$ 466,058**		
	Soft Costs				**$ 932,115**		
	FF&E/Technology Costs				**$ 150,000**		
	Estimated Total Project Costs				**$ 6,209,000**	$ 372	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4a - New Fire at Alternate Site (Phase 2)							
	(complete Police Station, Training Room and Public Lobby)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				3600	**new**		
Construction Costs:				**1968**	**finish PD buildout**		
	Site Development				$ 161,100	15% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			3600	$ 828,000	$230/sf	
	Finish Partial PD buildout			1968	$ 246,000	$125/sf	
	Building Construction Subtotal:				$ 1,074,000		
	Site and Building Construct. Costs Subtotal:				$ 1,235,100		
	Design and Estimating Contingency				$ 185,265	15% of construction	
Total Estimated Construction Cost:					**$ 1,420,365**	$ 255	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 142,037**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 284,073**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 1,420,365**		
	Project Contingency				**$ 142,037**		
	Soft Costs				**$ 284,073**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 1,946,000**	$ 349	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4b - New Fire, Police and Town Offices at Alternate Site (Phase 3)							
	(complete Town Offices)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				6492	**new**		
Construction Costs:							
	Site Development				$ 223,974	15% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			6492	$ 1,493,160	$230/sf	
	Finish Partial PD buildout			0	$ -	$125/sf	
	Building Construction Subtotal:				$ 1,493,160		
	Site and Building Construct. Costs Subtotal:				$ 1,717,134		
	Design and Estimating Contingency				$ 257,570	15% of construction	
Total Estimated Construction Cost:					**$ 1,974,704**	$ 304	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 197,470**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 394,941**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 1,974,704**		
	Project Contingency				**$ 197,470**		
	Soft Costs				**$ 394,941**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 2,667,000**	$ 411	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4c - New Fire, Police and Town Offices							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				26797			
Construction Costs:							
	Site Development				$ 1,232,662	20% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			26797	$ 6,163,310	$230/sf	
	Building Construction Subtotal:				$ 6,163,310		
	Site and Building Construct. Costs Subtotal:				$ 7,395,972		
	Design and Estimating Contingency				$ 739,597	10% of construction	
Total Estimated Construction Cost:					**$ 8,135,569**	$ 304	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 813,557**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,627,114**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 250,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 8,135,569**		
	Project Contingency				**$ 813,557**		
	Soft Costs				**$ 1,627,114**		
	FF&E/Technology Costs				**$ 250,000**		
	Estimated Total Project Costs				**$ 10,826,000**	$ 404	per sf

ARCHITECTURAL ASSESSMENT

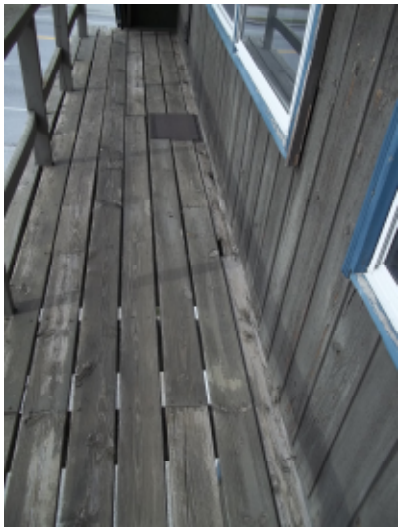
The current facility was constructed at three different times:

1974 – Original
1984 – Middle bays
1998 – Apparatus Bay for Tower

EXTERIOR ENVELOPE

1974 Original

- The first story is an 8 inch thick masonry concrete masonry units (CMU) with 2x4 wood strapping and stained wood siding. The second story is a 2X wood structure with gambrel shaped wood trusses.
- There appears to be very little batt insulation in the walls. Many areas especially in the gambrel roof are missing batt insulation. Approximate insulation value of R 5
- The balcony is in very bad shape and should be replaced
- Most of the exterior siding and trim needs to be painted



1984 Middle Bays

- The exterior consists of a two story 2 x 6 inch wood stud structure with stained wood siding and gambrel shaped wood trusses
- There is approximately 5 ½ inches of batt insulation but still some areas especially in the gambrel roof that are missing insulation. Approximate insulation value of R 10
- Most of the exterior siding and trim needs to be painted

1998 Apparatus Bay for Tower

- The exterior consists of a one story 2 x 6 inch wood stud structure with stained wood siding and a single sloped roof
- There is approximately 5 ½ inches of batt insulation. We were not able to see the condition of the roof insulation. Approximate insulation value of R 10

- Most of the exterior siding and trim needs to be painted

Roof:
The existing roof is metal roof panels and shingles.

- Shingles appear to be in decent shape. We do not know how much is left on the warranty
- The metal roof is not in very good shape and needs replacement and/or painting

Man Doors:

- The exterior man doors are not in very good shape.
- They are not commercial grade and may not be well insulated.
- Several man doors will take a lot of abuse by responders and should have commercial grade hardware.

Overhead Doors:

- They fairly new and have required safety sensors. They appear to operate properly.

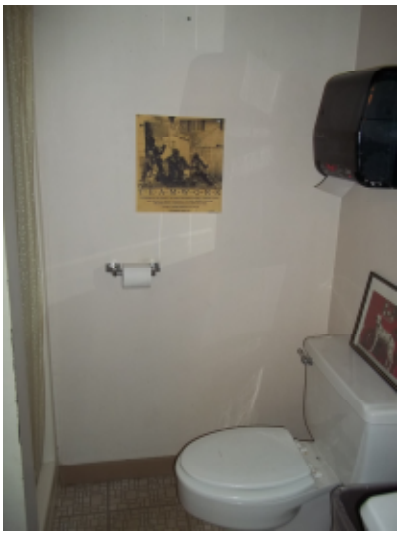
Windows:

- Most windows are single pane with triple track storm windows. They are not energy efficient.

INTERIOR – GENERAL COMMENTS

The station layout consists of the first floor primarily Apparatus Bays, Apparatus Support (i.e. Turn Out Gear Storage, Extractor, etc.) and a single toilet/shower. The Second floor is Offices, Kitchen, Day Room, Training Room and various storage rooms.

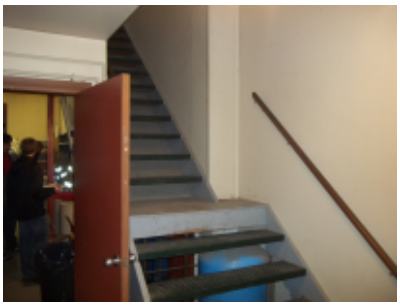
- Concrete floor finish is in bad shape and is spalling at the Original Apparatus Bays
- There is only one unisex toilet room and shower. There should be a male and female toilet to meet plumbing code
- There is no place to dry fire hoses. They currently dry them on the floor which could be a safety hazard
- Carpets are in bad shape



- Office sizes and space is limited. Both offices are shared spaces and lack adequate storage.
- The Training is reported to be adequate in size. There is not storage for tables and chairs. Closets off the room are full and inadequate.

ADA COMPLIANCE

Requirements for handicap accessibility were non-existent when the building was originally constructed. In 1990, the Americans with Disabilities Act (ADA) was enacted into law by the Federal Government to provide civil rights protections and nondiscrimination on the basis of disability. Since 1990, the original regulations have been updated and new requirements and clarifications have been added several times. Based on these regulations, we have found the following items to be in noncompliance or not accessible to the disabled:



- The single Toilet/ Shower Room is not ADA compliant.
- This toilet room is too small to allow for wheel chair turning radius
- Grab bars are not installed
- The Showers is too small and does not have grab bars and adjustable shower heads
- Many Corridors do not allow for wheelchair turn around
- Access to the door ways are too narrow
- Width of doors are too narrow

- The Kitchen should be ADA compliant with the required countertop height.
- There is no elevator to the second floor. Since this is a public Building paid for by public funds, it is a Title II building which requires the entire building to be handicap accessible. This means adding and elevator for access to the second floor.

Recommendations

- Each of the inaccessible features listed above has an impact on the ability of disabled members of the community to access various spaces independently if needed. Any renovation or new construction plans should incorporate the accessibility of these items to accommodate disabled people.

EGRESS AND LIFE SAFETY

- There is only a single stairway to the second floor. There should be two means of egress due to the occupant load.
- The stairway does not comply with current railing requirements
- Light levels seem low. Corridors do not have adequate egress signage
- Building is not sprinklered. If any additions are planned, the entire building should be sprinklered
- There are steps between Apparatus bays. These have not been constructed per building code and pose a safety hazard especially when responding to emergencies
- The Kitchen does not have a fire protected range hood. If anything is being fried at the station, the building code requires a fire suppression system over the range

Recommendations

- Remove all stored items from Corridors and Hallways
- Update lighting and exit signage.
- Provide a sprinkler system throughout the entire building.
- Provide ramps if possible between the different floor levels

STORAGE

- There is not enough general storage space.
- There is an outdoor storage container that stores salt, hoses and other misc. items

- Turn Out Gear Locker area appears to be inadequate in size for all the personnel
- There are no personnel lockers which is found in many fire stations
- Turn Out Gear Lockers should not be located within the Apparatus Bays due to accelerated degradation of the gear due to vehicle exhaust.

MISCELLANEOUS

- There is a 30,000 gal to 38,000 gal water storage tank located in the Middle Bays (under the Engine). It is reported that the drafting system and storage do not have any issues and seem to be functioning well. Any Addition to the Building will need to take this storage tank into consideration especially when it comes to the foundation and structure.

CIVIL ASSESSMENT

GENERAL SITE CONSIDERATIONS:

- There remains some question about the location of the property line to the south, based on testimony and exhibits that show a former road ROW in that location. While it has been understand that the southerly neighbor may be friendly to expansion in that direction, actual property lines should be confirmed before design of any additions or new structures on the site. It is recommended that a current topographic and boundary survey be conducted.
- Site circulation appears to function reasonably well, however the lack of striping and clear paths of circulation may be a challenge for visitors unfamiliar with the site. Exit from apparatus bays directly onto Killington Road may present somewhat of a sight distance and visibility challenge.
- The site and Killington Road slope down gently from south to north. This results in stepped slabs within the existing building and will likely require stepped slabs within a similarly configured new building, unless the building can be pulled back enough from Killington Road such that grade changes can be made up with an apron.
- Regarding flooding, there is no available FEMA FIRM map for this location, however data is likely available from FEMA and should be gathered before any redevelopment of the site is considered. Fire personnel have noted that the building has never flooded, but that flood waters have come into the rear parking area to within a foot or less in elevation of the fire station.
- The Fire Department Staff have indicated that the location of the station within Killington is desirable from a response time perspective.

UTILITY CONSIDERATIONS:

- Utility services appear reasonably adequate for the existing building and level of use. Significant expansion of use or a new building on the same site will require further review to confirm adequacy.
- Municipal sewer is located in Killington Road, directly in front of the fire station.
- A drilled water well was permitted and installed in 2002 (WW-1-0945). It is understood from the staff that bottled water is used for drinking purposes.
- There is a dry hydrant intake from the Roaring Brook with a small pump house used to fill a water storage tank (roughly 35,000 gallons) below one of the apparatus bay slabs. If the existing building is replaced, this function will also need to be replaced in some similar manner.

STORMWATER, PERMITTING AND NATURAL FEATURES:

- There does not appear to be any stormwater management at the existing site. Water appears to sheet flow from the existing parking area in 3 locations towards the Roaring Brook in the rear. Since the parcel is less than 1 acre, an ANR Stormwater and CGP (erosion control permit) should not be required. However, the current stormwater drains into the Roaring Brook untreated in at least 3 locations. Any redevelopment of the site should consider at least some form of stormwater treatment prior to discharge.

- ANR has a riparian buffer policy that applies to projects that require an Act 250 permit. Since this is a municipal project that will disturb less than 10 acres (the parcel is less than 1 acre) an Act 250 permit is not likely required, so my understanding is that the riparian buffer policy will not apply. Any major renovation to the existing building, or new building, will require an ANR Wastewater permit, possibly an ANR Stormwater and Erosion Control permit and local Planning and Zoning permits.
- There are no mapped wetlands on the site, however a wetland biologist would need to perform a site visit to confirm if any wetlands are present along the Roaring Brook bank. If any do exist, Class III wetlands do not require a buffer while Class II wetlands require a 50ft buffer. They would be considered Class II wetlands if they are hydrologic ally connected to mapped Class II wetlands. The ANR Environmental Indicator map shows that there are Class II wetlands mapped just north of the Dean Hill road culvert.
- Any major renovation to the existing building, or new building, will require an ANR Wastewater permit, possibly an ANR Stormwater and Erosion Control permit (if an increased lot size and disturbance is more than 1 acre) and local Planning and Zoning permits.

At this point, pending results from the above items, the safest course of action would be to plan any concept redevelopment of the site to within the existing edge of paving, gravel or other previously disturbed areas.

STRUCTURAL ASSESSMENT

GENERAL STRUCTURAL REVIEW

The existing building consists of two phases of wood frame/stick built construction. Reuse and renovation of the existing building will require evaluation and upgrading to portions of the framing. A summary of anticipated modifications is as follows:

- Since the building is classified as an "Essential Facility" there will likely need to be some shear wall reinforcing done including adding sheathing or increasing nailing and the addition of wood to concrete hold-downs at wall/foundation interface.
- Second floor and roof wood framing will likely require some reinforcing depending on desired uses and corresponding loads. The second floor framing in the original building appears to have about half the capacity of the newer building.
- Reinforcing requirements for existing second floor framing will depend on desired use for the various spaces. Use for offices will require less reinforcing than for public assembly/meetings or storage.
- The steel columns in the original building are rusted near the bases and will likely require replacement.
- In the event all or portions of the existing building are proposed to be reused, additional documentation and evaluation will be necessary.

MECHANICAL SYSTEMS ASSESSMENT

FIRE DEPARTMENT EXISTING SYSTEMS

- The fire department is heated with propane gas furnaces. The furnaces appear to be original to the years they are installed (1974, 1984 and 1999). There are two (2) types of gas furnaces. The first is a wall mounted Empire Comfort Systems wall furnace. This type serves 2 of the engine bays and the upper level. The second furnace is a horizontal unit heater type and this model only serves the central engine bay.

Empire Heating System Propane Heater

Horizontal Unit Propane Heater

- The fire department uses about 3,600 gallons of propane per year. There are two (2) 1,000 gallon underground storage tanks in the back.
- There is no central cooling. The only air conditioning is an LG window unit in the meeting room on the second floor. This unit is fairly new and is an energy efficient model (18,000 btu/hr, 10.7 EER).
- There is no central ventilation system. Carbon monoxide units are Air Vac 911 models. Several are installed in the three (3) engine bays.

Air Vac 911 for Carbon Monoxide

FIRE DEPARTMENT EXISTING PLUMBING SYSTEMS

- There is one lavatory on the first floor. It consists of a lavatory, water closet and shower. There are a couple of laundry sinks in the engine bays. Upstairs this is a kitchen sink.

Existing Bathroom

- A fairly new water heater is installed with a tempering valve, so it is meeting the current plumbing code requirements.

New Water Heater with Tempering Valve

- An air compressor is piped throughout the engine bays to pneumatic hose reels. This same compressor is used to fill the departments Scot Packs.

Air Compressor

FIRE DEPARTMENT EXISTING SPRINKER SYSTEMS

- There is no central sprinkler system in the fire department.

OBSERVATIONS, RECOMMENDATIONS AND CONCLUSIONS

FIRE DEPARTMENT MECHANICAL SYSTEMS

1. There appear to be no issues with the mechanical systems. Some of the gas heaters are getting old and have cosmetic damage, but appear to be heating the building. More energy efficient models are available and the units should be upgraded when the existing units fail or need to be replaced.

2. According to the staff, the Air Vac 911 systems appear to be in working order.

FIRE DEPARTMENT PLUMBING SYSTEMS

1. Replace existing plumbing fixtures with low water consumption models. The water closets can be reduced to 1.6 gpf and aerators can be installed on the lavatory faucets. This will reduce water consumption.

EXISTING ELECTRICAL SYSTEMS ASSESSMENT

POWER DISTRIBUTION EQUIPMENT

An overhead 3-phase, 200 amp, 120/208v service runs from a utility pole to a mast on the side of the 1998 apparatus bay addition. This service feeds the entire facility. This overhead service terminates at the utility meter socket and then runs underground to a Kohler, service-entrance rated transfer switch inside the 1998 addition. From the transfer switch, the service runs inside the building to a 200A, main circuit-breaker, 40-circuit Square D distribution panel that was installed in 1984 when the first apparatus bay addition was built. This panel is used to distribute power throughout the building.

This Square D main panel distributes power to a 100 amp subpanel in the 1998 addition, and a smaller 60 amp subpanel in the day-room upstairs. It also provides power to the small pump house near the brook. The panel also provides power to a 15 HP pump that is used to fill the trucks from the water reservoir under the apparatus bay. This panel and breakers are not well labeled and the accuracy of the panel schedule is suspect. The panel is completely full and there are (6) mini breakers used which indicates that the panel is under sized and potentially over-loaded. See Figure #1 on page E-2.

The main panel is located at the rear of the apparatus bay and does not have the code-required working clearances around it. Panels require a clear working clearance of 30” wide and 36” in front. The 15 HP pump and associated plumbing is blocking the clear access to the panel. See Figure #2 on page E-3.

There is no TVSS or surge suppressor in the main switchgear. A TVSS will protect against Utility surges and lightning strikes.

This main panel is in need of replacement and should be relocated. Electrical distribution equipment and wiring is expected to last ~40 years. This original panel, breakers, and distribution wiring are approaching this age. The existing equipment is at an age where failures are expected.

There is a small 60A sub-panel located upstairs in the day room. This is of the same age as the main panel, 1984 vintage. This panel is totally unlabeled and also contains “mini-breakers”. There have been many occurrences of breakers tripping upstairs when the air conditioners are running. This indicates that the upstairs panel and circuits are inadequate.

The 100 amp subpanel in the 1998 addition is in good condition and is well labeled. It provides power to the air compressor and lights and outlets in the addition. There is room for addition circuits in this panel.

In addition to being connected to the incoming Utility service, the Kohler transfer switch is also connected to an exterior Kohler, 60KW, LP-fired, 3-phase, back-up generator. This generator starts automatically when utility power is lost and provides power to the entire facility. The generator size corresponds to the building’s utility service size: 200 amps, 3-phase.

The LP tanks are buried adjacent to the generator.

The generator and transfer switch were installed in August 2005 and appear to be in very good

Figure #1
Main Panel full with mini-breakers and poor labelling

condition. The installation, labeling, grounding, and wiring all appear to code-compliant and in good condition. It is suggested that the outdoor generator be raised up 4”-6” above grade on a concrete house-keeping pad to avoid direct contact with the earth and grass and to offer some protection from ground water and snow. Currently it sits on a concrete pad that is at grade.

The electrical service seems marginal at the present size of 200 amps. It is recommended that a new, larger size service be installed and that the 1984 distribution and 1974 distribution systems be replaced and increased to allow for more circuits and spare capacity. The 1998 addition panel and generator equipment are adequate and could remain.

Figure #2
Main Panel with inadequate working clearances, Telephone entry location

LIGHTING

The existing interior lighting throughout the station consists of a mixture of fixtures. There are old fluorescent fixtures throughout that use magnetic ballasts and T-12 lamps. These are very inefficient and should all be replaced. There are many incandescent fixtures that all should be replaced. In addition to being very inefficient, the lighting in the 1984 and 1974 building is poor.

The lighting upstairs uses surface fluorescent fixtures with T-8 lamps. Occupancy sensors should be installed upstairs in all rooms to automatically turn the light off when the rooms are not occupied.

The lighting in the 1998 addition is using T-8 fluorescent lamps which are standard for interior lighting. The lighting in this space is good.

It is suggested that all fixtures in the 1974 and 1984 building be replaced with newer, more efficient, lighting fixtures with the use of some occupancy sensing controls. The lighting levels and lighting quality could be significantly improved, while using less power.

Currently, there is no emergency lighting or exit lights. While the size of the building does not make emergency and exit lighting required by code, thought should be given to providing emergency egress lighting and exit path indication.

There is limited exterior lighting. There is one flood light on the side and one in the rear. There are a few building mounted motion lights. These lights provide some exterior and security lighting, but not adequate in all locations.

The exterior flood lights are using halogen lamps and incandescent lamps which are also very inefficient. The flagpole flood lights are also incandescent.

It is suggested that all exterior lighting be replaced with new LED fixtures and that additional exterior lighting be considered.

ELECTRICAL DEVICES AND WIRING

There are a variety of wiring methods used throughout the building. There is surface EMT conduit, concealed wiring, and flexible armored cable. These are the most reliable types of wiring systems. There is also Romex wire used upstairs and exposed on some areas. There have been no major upgrades to the original wiring that was installed during the original construction and 1984 addition. The conduit, junction boxes, and wiring show many signs of age in the older portions of the building. There are a number of code violations related to the wiring methods.

All receptacles in all apparatus bays are required to be GFI protected. Currently the 1998 addition is the only location where some GFI outlets are present. The apparatus receptacles on the ceilings and walls

are also required to be GFI protected, none in the building currently are.

GFI protected outlets are required in the upstairs kitchen. All receptacles installed in kitchens are now required to be GFI protected.

There is exposed, surface Romex in the 1974 building. See figures #3 and #4. Romex is not allowed to be exposed in garages. Romex is also laying on the floor, subject to damage, in the storage closets on the second floor. See figure #5.

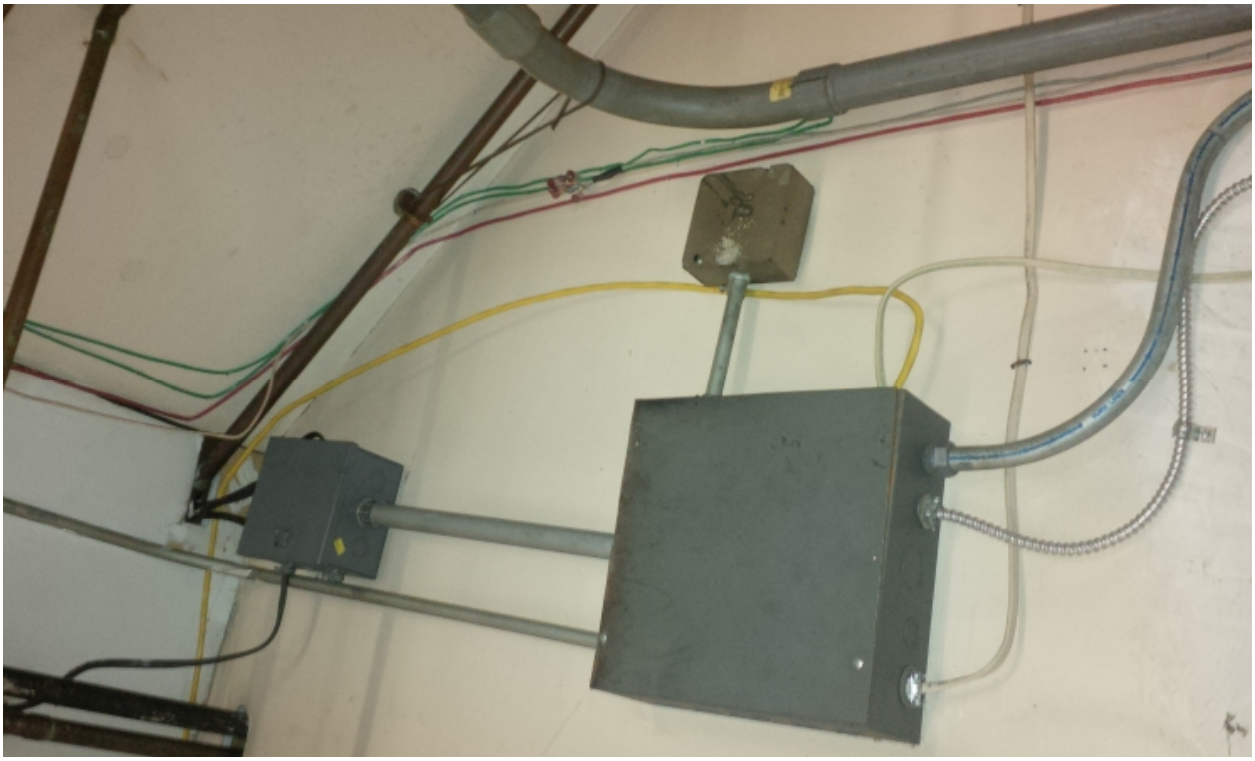


Figure #3 showing surface Romex and messy phone wiring

Figure #4 showing exposed Romex wiring and surface telephone wiring

Figure #5 showing Romex and Antenna wiring lying on the closet floor.

Most all the receptacles in the 1984 and 1974 building are broken. Refer to figure #6.

Figure #6 Showing typical a broken and worn-out receptacle

Most all junction boxes, devices, disconnects and similar devices are note labeled in the 1974 and 1984 buildings.

The cords feeding the trucks are not GFI protected. Many cords are in poor condition and strain-reliefs are not used to keep the cords from being pulled from the junction boxes. Refer to Figures #7 and #8.

Figure #7 showing no GFI or strain relief at the junction box

Figure #8 showing damaged cord connected to a truck

The outside power cord used for Christmas lighting and the Christmas lights are left in place all year and show signs of wear. These items are not rated for continuous outside exposure.

Another potentially dangerous situation occurs in the upstairs closets. Incandescent bare lamps are in very close proximity to uncovered insulation. All fixtures in closets are required to have protective lenses. Refer to Figure #9.

Figure #9

Considering the condition of the wiring and the various violations, all wiring in the 1974 and 1984 portions of the building should be completely replaced. The wiring in the 1998 addition is in good condition and can remain.

FIRE ALARM SYSTEM

The existing fire alarm system is an ESL 1550 Series conventionally zoned system. The fire alarm panel was installed in 2008, but the fire alarm system components were installed previous to 2008. This system serves the entire facility. This is a conventional zoned system with connection to a Security Company for monitoring. There is a dialer connected to the system that calls the monitoring company upon alarm. The entire fire alarm system is serviced and tested yearly. There are 3 current zones with a capacity for 2 additional zones. The existing zones are first floor, second floor, and attic.

The fire alarm system does not meet current ADA requirements for notification (horns and strobes) in all areas. Currently, most areas and rooms have adequate horns and strobe coverage, but there are a few areas where there are not adequate horns and strobes. The code requires that all restrooms, break rooms, apparatus rooms, and meeting rooms have ADA approved strobe lights and adequate sound notification. In all rooms and areas where the general public can meet, horns and/or strobes are required.

Areas that do not currently have adequate devices are the bathroom and the day room.

Many of the existing horn/strobe units are original equipment and do not meet current ADA standards. The ADA standards have changed significantly in the last 20 years which has caused the design of the horns and strobes to change. The non-code compliant horns and strobes are easy to replace with new ADA-compliant devices. It is estimated that there are 5 non-compliant devices and an additional 4 devices are required to meet the current codes.

Heat detectors are the primary type of protection installed. Heat detectors provide property protection, but are not life-safety devices. Since there is no sprinkler system, fire alarm devices are required in all spaces and rooms.

System smoke detectors are installed in the meeting room and at the top of the stairs. Smoke detectors are life safety devices and should be installed in all egress areas, hallways, and public spaces.

A smoke detector is required by code to be installed over the main fire alarm panel. Currently there isn't one installed.

Overall, the fire alarm system is operational but not completely code compliant to today's standards. The building's fire alarm system can be brought up to code with the above-mentioned additions.

TELEPHONE/DATA SYSTEM

TELEPHONE

Phone and internet service is provided by VTel. The phone service enters the building next to the main

distribution panel. Refer Figure #2. The phone wiring runs up to an old AT&T Phone Spirit system in the radio room. From here, phone cables are run to all the phones. Most wiring is surface mounted and stapled to walls and strapped to conduits and other wiring. Refer to figures #3 and #4.

The ATT&T Spirit system is a widely used and popular system at a very inexpensive cost. The system provides 12 lines and is capable of handling dispatch in the adjacent towns in the event of an emergency.

The system is functional, but very dated. The wiring is in poor condition and should be updated to handle faster speeds for computer needs.

DATA SYSTEM

The data and network system is very minimal. It appears that there are three computers that are connected, with a common internet connection. There is no dedicated computer server or system.

SECURITY

There currently is no hard-wired security system in place. There currently are no security cameras installed.

RECOMMENDATIONS

POWER DISTRIBUTION EQUIPMENT

The size of the existing service should be increased to allow for future expansion and additional loads. New panels and subpanels should be installed in the 1984 and 1974 portions of the building.

Install a TVSS (transient voltage surge suppressor) with under voltage protection to protect the electrical equipment in the event of a power surge or utility under voltage situation.

The existing generator and transfer switch can be reused and integrated into the revised electrical service.

All circuits in all panels should be traced and properly labeled. Abandoned circuits and wiring should be removed.

LIGHTING

New lighting and controls should be installed to replace all exterior fixtures. All lighting in the 1974 and 1984 portions of the building should be removed and replaced. Lighting should meet ASHRAE/IES STANDARD 90.1 – 1989 and the 2012 Vermont Guidelines for Energy Efficient Commercial Construction for energy efficiency.

Add occupancy controls should be installed in all areas.

Consider adding emergency lighting and exit egress path lighting.

ELECTRICAL DEVICES AND WIRING

All wiring in the 1974 and 1984 portions of the building should be completely removed and replaced.

The code violations and conditions mentioned in this report should all be remedied.

FIRE ALARM SYSTEM

Horns and strobes should be added in areas where the coverage is not sufficient. Non ADA horns and strobes should be replaced with new devices.

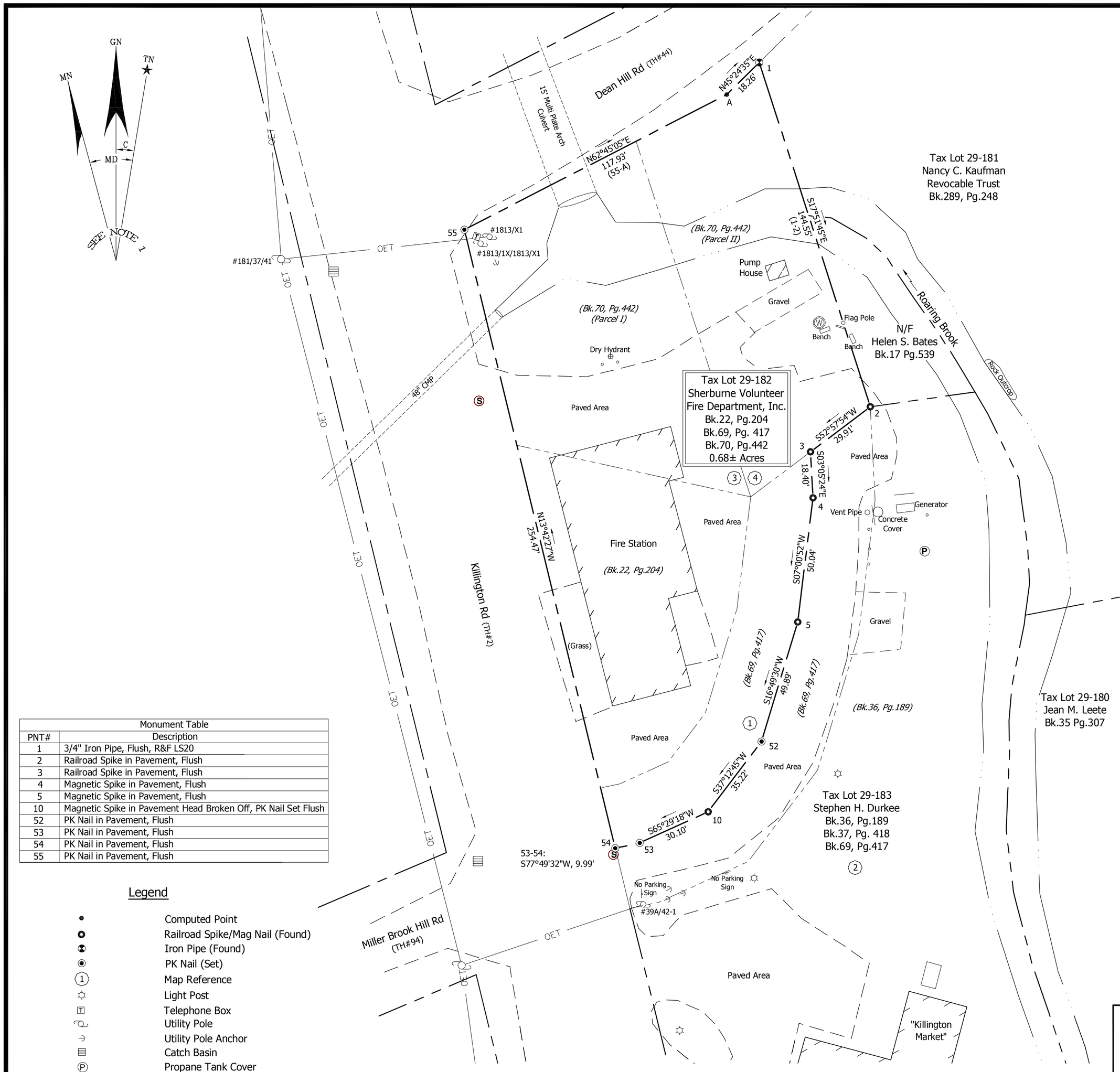
SECURITY SYSTEM

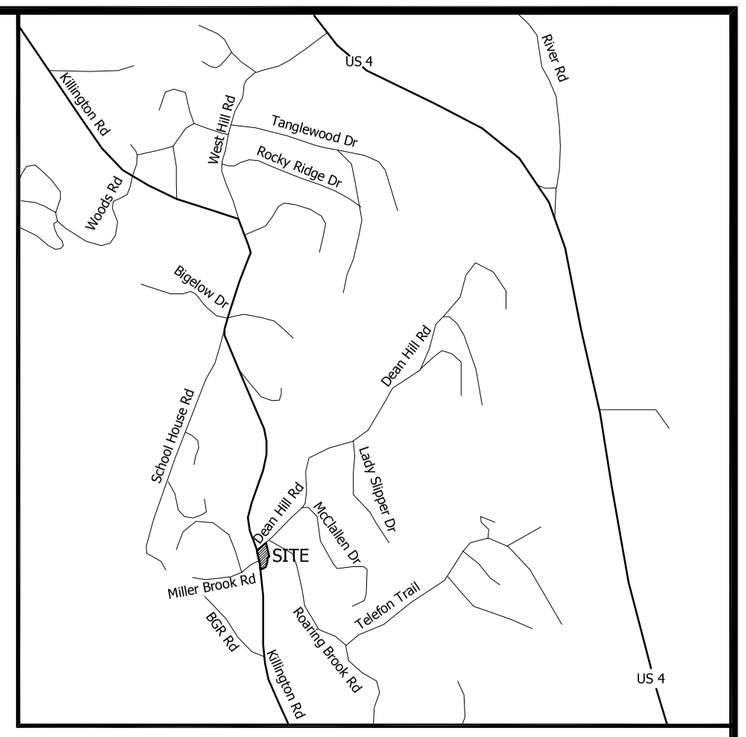
An entry alarm security system and/or security camera should be considered, including a door contacts and at entry points and motion detectors on the second floor and hallways.

PHONE/DATA

Install a completely new tel/data system with a network hub with a dedicated area. Provide new Cat. 5e wiring to all phone and computer locations using a central hub and server with a Cat 5e patch panel and a connection to a high speed internet connection.

All abandoned wiring and systems should be completely removed.





SITE LOCATION

SCALE: 1" = 2000'

Map References

1) "Town Road Off Killington Basin Road (Sta.96-106) Sherburne, Vermont", prepared by B.S. Butterfield Surveyor dated 25 July, 1963. Recorded in the Killington Land Records Map Slide #522.

2) "Lands of John A. And Irene H. Durkee Sherburne, Vermont, Feb. 6, 1964," prepared by M.H. Welch Surveyor. Recorded In the Killington Land Records Map Slide #26.

3) "Sherburne Volunteer Fire Department, Inc. Property Killington Road, Town Highway #2, Town of Killington, County of Rutland, State of Vermont" prepared by Roberts & Franzoni, Inc dated 5/17/99. Not Recorded.

4) "Site Plan, Sherburne Volunteer Fire Department, Killington Road, Killington, Vermont" prepared by Michael Engineering Company, P.C.. Recorded on the Vermont Agency of Natural Resources Wastewater Permit Data Base reference Water Supply and Wastewater Disposal Permit WW-1-0945.

Notes:

1) Bearings shown on this plat refer to Vermont Grid North as established by OPUS observations using Topcon Hyperlite + GPS receivers. Magnetic Declination (MD)= 14°31'±W. Convergence(C) =-0°12'.

2) The physical evidence shown on this plat is based upon a field survey by Rose Land Surveying, dated December 19, 2013.

3) Boundaries are computed from a Topcon PS103 Total Station field survey. This survey meets accuracy standards for a suburban class survey as established by Part 5 of the Rules of the Vermont Board of Land Surveyors, effective January 7, 2013.

4) Property subject to and/or benefited by all easements and rights-of-ways of record.

5) Buried structures and/or utility lines may not be shown.

6) Tax Lot 29-182 is comprised of the following parcels:
a) Oren W. Bates and Helen S. Bates to Sherburne Volunteer Fire Department, Bk.22, Pg.204, 10/17/63.
b) Town of Sherburne to Sherburne Volunteer Fire Department, Bk.69, Pg.417, 4/2/84 (Former Ayers Road).
c) Helen S. Bates to Sherburne Volunteer Fire Department, Bk.70, Pg.442, 9/19/84.

7) Boundaries on the plat represent the retracement of those previously described by deed and/or survey. Inconsistencies may be due in part to different survey accuracies and/or environmental impacts and human activities affecting physical evidence relied upon.

Monument Table	
PNT#	Description
1	3/4" Iron Pipe, Flush, R&F LS20
2	Railroad Spike in Pavement, Flush
3	Railroad Spike in Pavement, Flush
4	Magnetic Spike in Pavement, Flush
5	Magnetic Spike in Pavement, Flush
10	Magnetic Spike in Pavement Head Broken Off, PK Nail Set Flush
52	PK Nail in Pavement, Flush
53	PK Nail in Pavement, Flush
54	PK Nail in Pavement, Flush
55	PK Nail in Pavement, Flush

Legend

- Computed Point
- Railroad Spike/Mag Nail (Found)
- Iron Pipe (Found)
- PK Nail (Set)
- Map Reference
- Light Post
- Telephone Box
- Utility Pole
- Utility Pole Anchor
- Catch Basin
- Propane Tank Cover
- Sewer Manhole
- Drilled Well
- Sign
- (Bk.69, Pg.417) Key Deed
- CMP Corrugated Metal Pipe
- Boundary Line
- Right-Of-Way Line
- Edge Of Pavement
- Edge Of Gravel
- Edge Of Water
- OET Overhead Electric & Telephone
- Existing Building
- Culvert

This survey was conducted in accordance with the Rules of the Board of Land Surveyors, Part 5, Standards for the Practice of Land Surveying. It is based on deed descriptions, map references listed, and physical evidence found in the field. It is consistent with this information to the best of my knowledge and belief unless otherwise noted.
This plat conforms with the requirements of 27 VSA 1403.

David N. Rose VT L.S. 657 — 12/27/2013 Date

30 0 30 60 90 120

ROSE LAND SURVEYING

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ROSE LAND SURVEYING

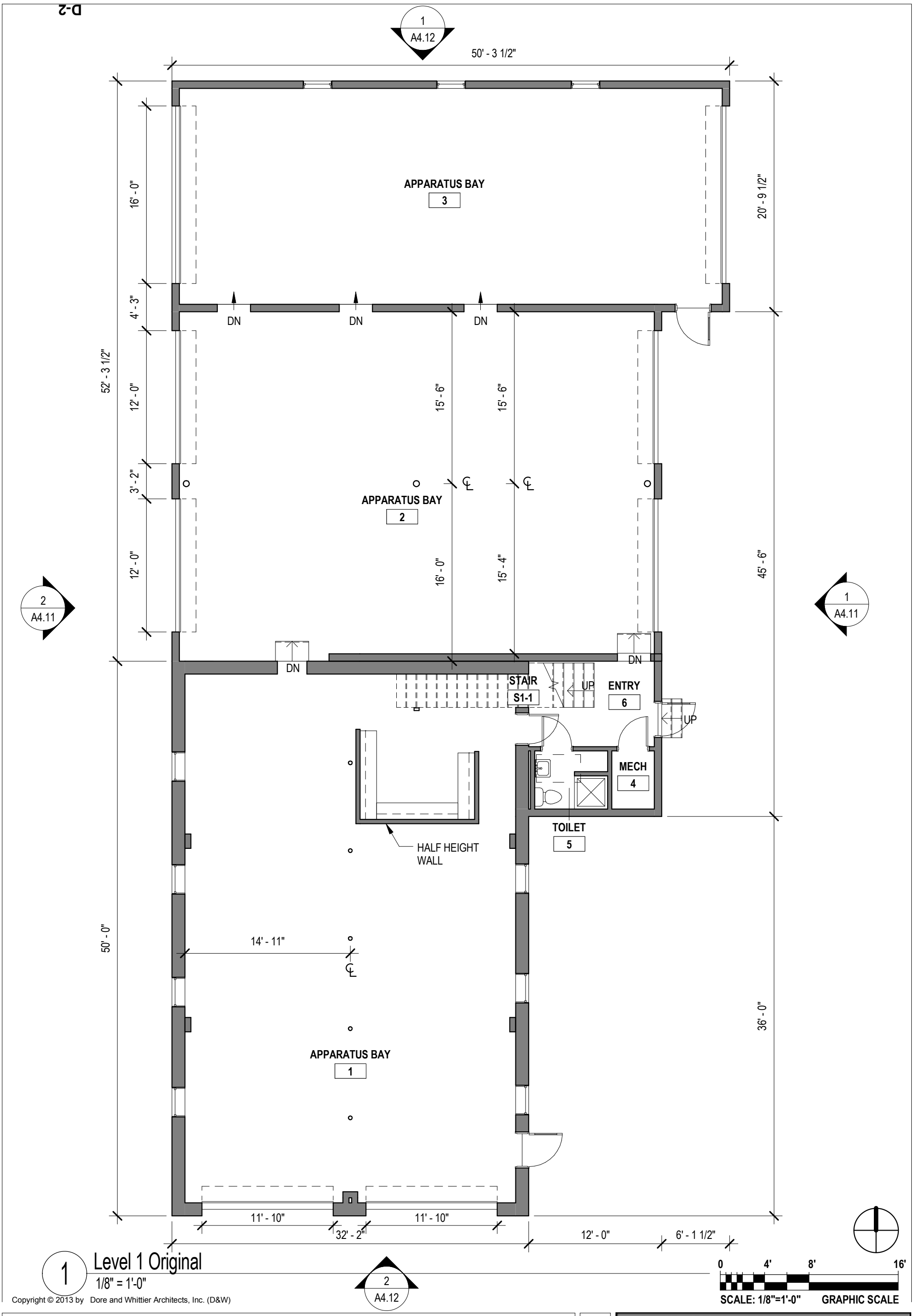
STATE OF VERMONT — DAVID N. ROSE No. 657 — LICENSED LAND SURVEYOR

TITLE
BOUNDARY SURVEY
IN
KILLINGTON
RUTLAND COUNTY
VERMONT
FOR
SHERBURNE VOLUNTEER
FIRE DEPARTMENT

REVISIONS:

SCALE:	DATE:	SURVEYED: DNR, NJR	TAX MAP # 03-03-24	DRAWING #
1"=100'	12/27/2013	DRAWN: DNR	CHECKED: NJR	13033-BO

D-1



1 Level 1 Original
1/8" = 1'-0"

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D-2

KILLINGTON FIRE

ACCESS ROAD, KILLINGTON VT

A1.11	Sheet Title. FLOOR PLAN - LEVEL 1	Date	Scale 1/8" = 1'-0"
		Drawn By MW	Checked By Checker

Project No. 13-0667

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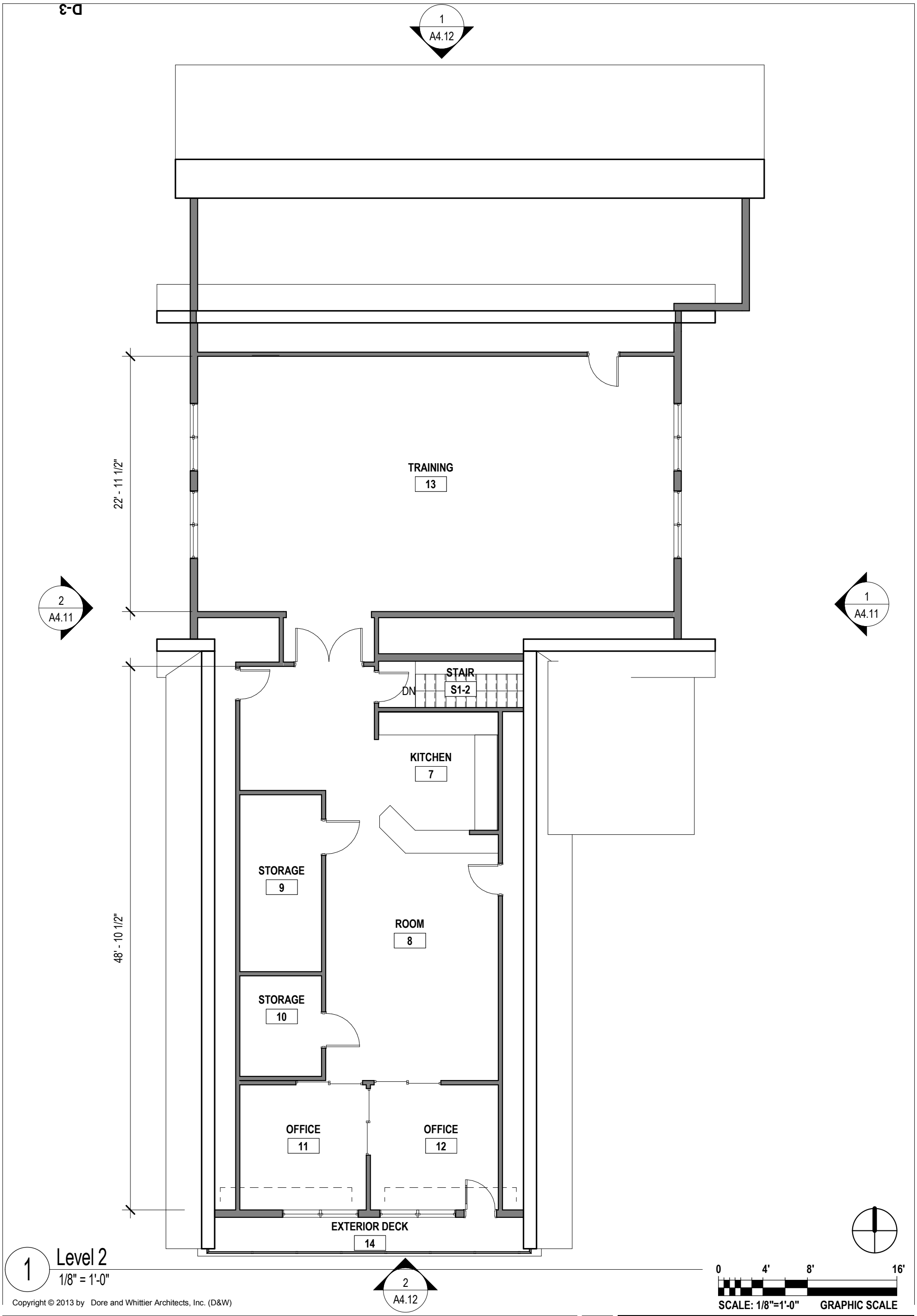
D-3



1 Level 2
1/8" = 1'-0"

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KILLINGTON FIRE

ACCESS ROAD, KILLINGTON VT

A1.21	Sheet Title. FLOOR PLAN - LEVEL 2	Date	Scale 1/8" = 1'-0"
		Drawn By MW	Checked By Checker

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www.doreandwhittier.com

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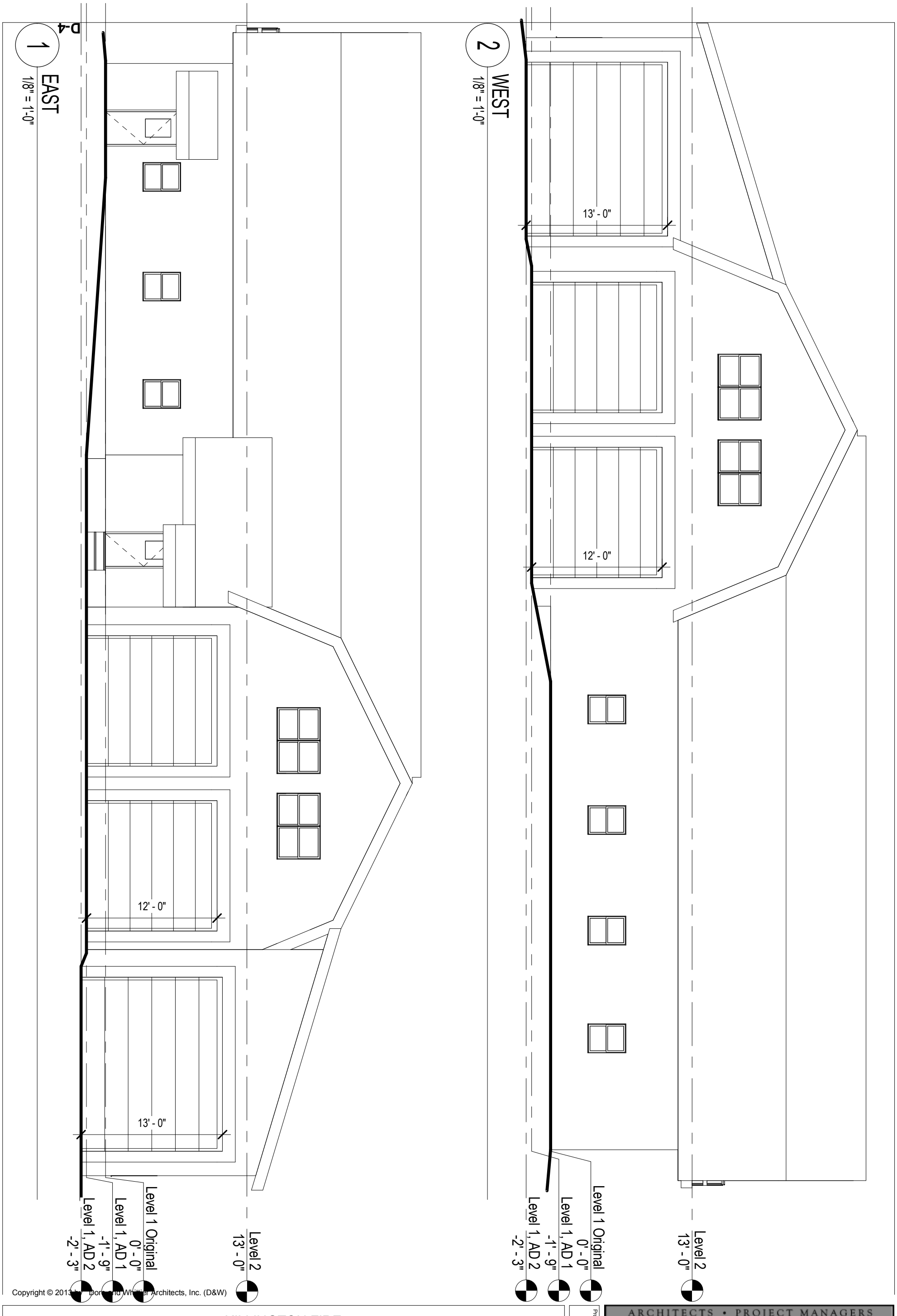

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KILLINGTON FIRE

ACCESS ROAD, KILLINGTON VT

A4.11	Sheet Title. EXTERIOR ELEVATIONS	Date	Scale 1/8" = 1'-0"
		Drawn By MW	Checked By Checker

Project No. 13-0667

ARCHITECTS • PROJECT MANAGERS

DORE & WHITTIER ARCHITECTS, INC.

South Burlington, VT 05403
1795 Williston Rd. Ste. 200
P : 802 . 863 . 1428
F : 802 . 863 . 6955

Newburyport, MA 01950
260 Merrimac St. Bldg. 7
P : 978 . 499 . 2999
F : 978 . 499 . 2944

www.doreandwhittier.com

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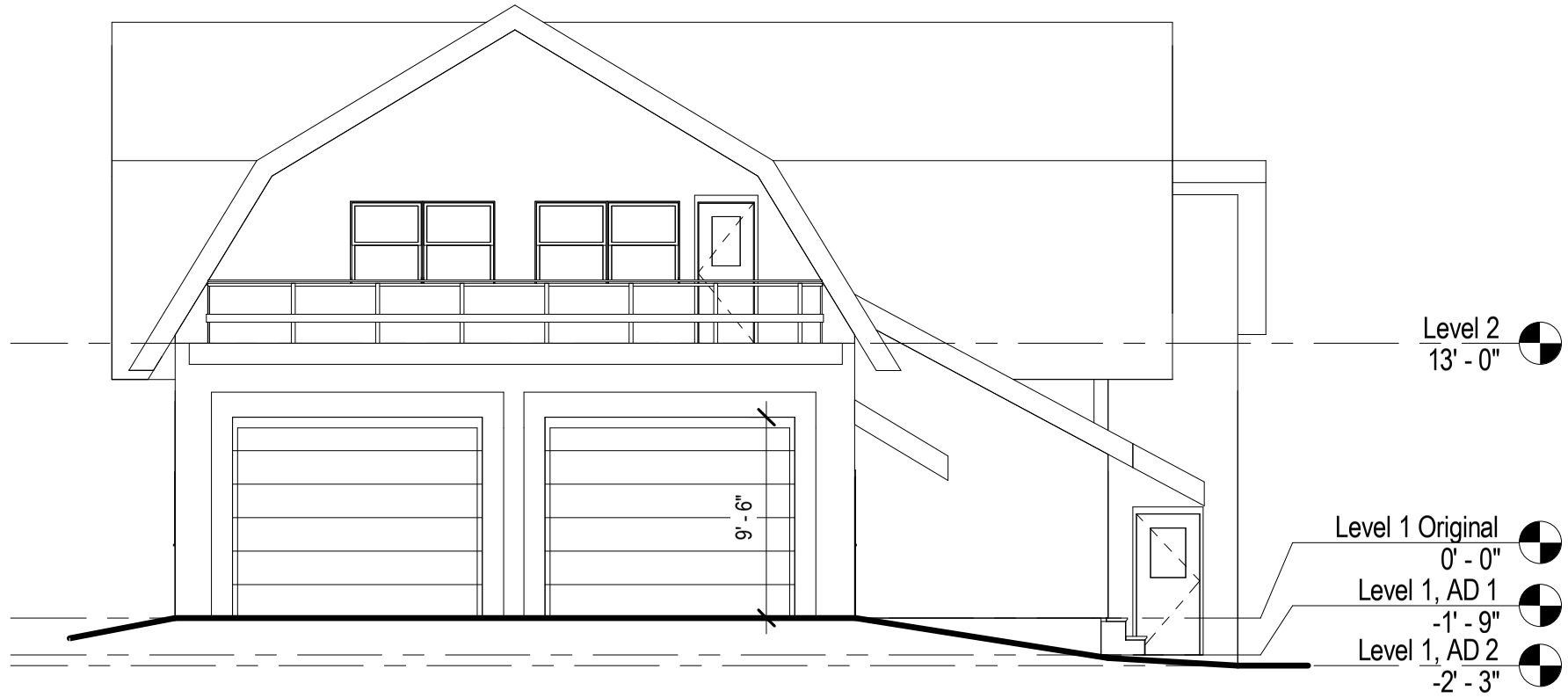
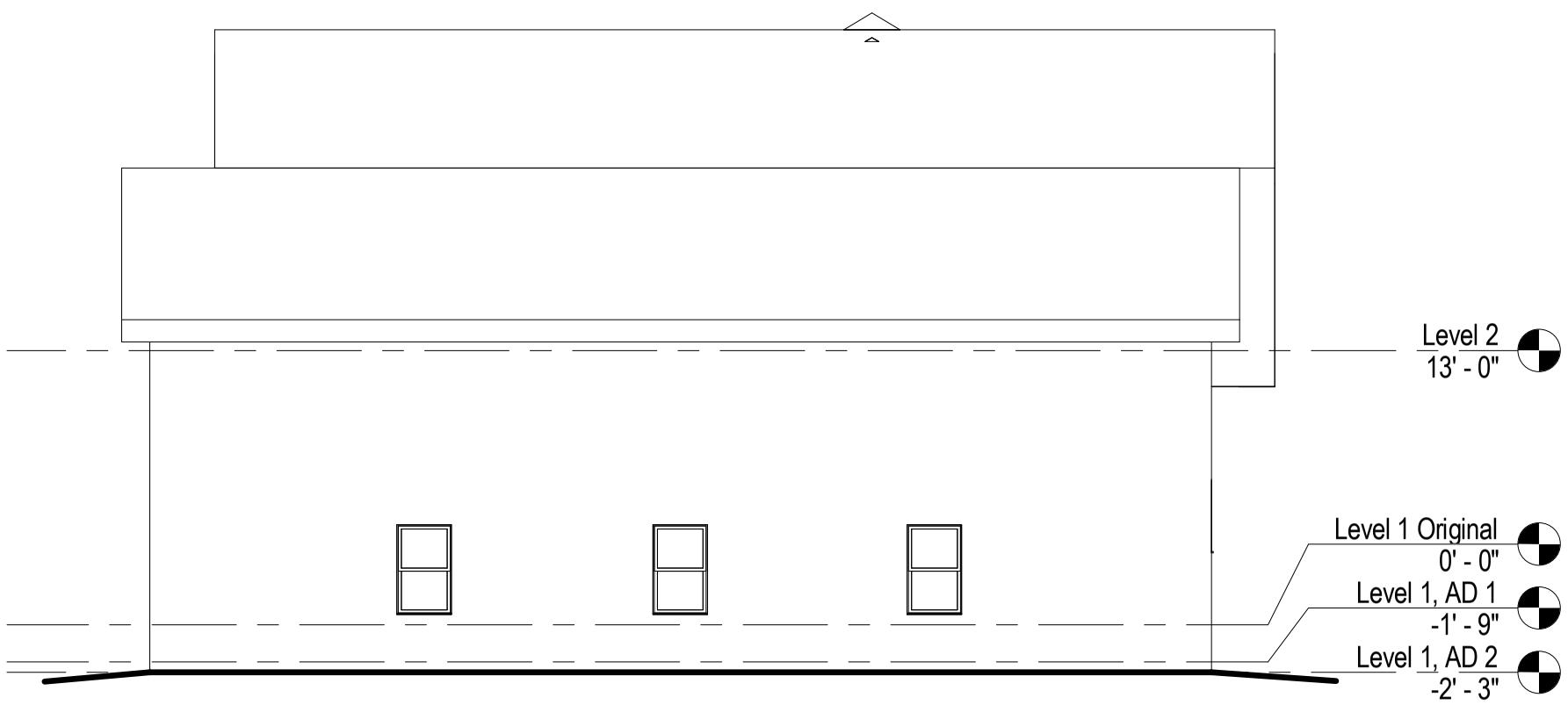


2 SOUTH
1/8" = 1'-0"



1 NORTH
1/8" = 1'-0"

ARCHITECTS • PROJECT MANAGERS
South Burlington, VT 05403
1795 Williston Rd. Ste. 200
P : 802 . 863 . 1428
F : 802 . 863 . 6955
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DORE & WHITTIER ARCHITECTS, INC.

Project No.
13-0667

Scale
1/8" = 1'-0"

Checked By
Checker

Date

Drawn By
MW

Sheet Title.
EXTERIOR ELEVATIONS

A4.12

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KILLINGTON FIRE
ACCESS ROAD, KILLINGTON VT

10/30/2013 12:46:46 PM

Killington Public Safety Complex

PROGRAMMED SPACE	EXISTING		REQUESTED		15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Police Department													
ADMINISTRATION													
Police Chief Office			200		100	0	0	45	0	45	45	0	Requested change to 100 SF
SUBTOTAL	**0**		**200**		**100**	**0**	**0**	**45**	**0**	**45**	**45**	**0**	
OPERATIONS													
Patrol Room			440		440	0	0	256	0	256	266	0	with Workstations
Toilet/Shower/Locker (Male)			330		180	0	0	170	0	190	190	0	2 gender neutral Toilet Showers
Gender Neutral Lockers (Male and Female)					180	0	0	167	0	173	173	0	18'by10' locker room
Evidence Storage			65		65	0	0	75	0	75	75	0	
Hard Interview Room / Cuffing			75		75	0	0	66	0	66	66	0	
Detention Cell - Male			70		70	0	0	82	0	82	82	0	(1 needed in H Priority)
Secure Toilet			40		40	0	0	45	0	45	45	0	
Sallyport			540		540	0	0	567	0	327	327	0	Single vehicle
SUBTOTAL	**0**		**2,225**		**1,590**	**0**	**0**	**1,428**	**0**	**1,214**	**1,224**	**0**	
Grand Total Police Department	**0**		**3,950**		**1,690**	**0**	**0**	**1,473**	**0**	**1,259**	**1,269**	**0**	

E-1

Killington Public Safety Complex

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Fire Department											
PUBLIC AREAS											
Dispatch / Radio Room / Reports		180	150	0	0	128	128	143	143	160	
SUBTOTAL	**0**	**420**	**150**	**0**	**0**	**128**	**128**	**143**	**143**	**160**	
ADMINISTRATION											
Fire Chief Office	129	200	150	129	129	169	169	148	148	173	
Deputy Fire Chiefs' Office	128	190	150	128	128	154	154	154	154	150	Shared Office
Pres. / VP Office		190	150	0	0	149	149	149	149	175	Shared Office
Work Room - Office Equipment / Copy / Supplies		80	80	0	0	84	77	84	84	75	
SUBTOTAL	**257**	**2,070**	**530**	**257**	**257**	**556**	**549**	**535**	**535**	**573**	
LIVING SPACES											
Toilet Shower	33	270	180	133	133	316	304	290	176	314	Change from(3) gender neutral to (2) gender neautral
Personnel Lockers			100	0	0	128	128	103	103	198	Lockers were included in the Sleeping Qtrs. Does Fire Still want? 6 - 10 Lockers?
Day Room	496	545	545	496	496	535	539	380	380	525	
Kitchen/Dining	122	470	150	122	122	180	181	122	122	144	Change to approx same size as exg.
SUBTOTAL	651	1,920	975	751	751	1159	1152	895	781	1181	
OPERATIONS											
Apparatus Bays	3579	6,080	6,720	3761	4841	6882	5766	6748	6720	6818	(4) 18'W & (2)20'W x 60'D Bays
SUBTOTAL	**3,579**	**6,510**	**6,720**	**3,761**	**4,841**	**6,882**	**5,766**	**6,748**	**6,720**	**6,818**	
OPERATIONS SUPPORT											
Hose Storage		65	65	0	0	84	87	58	58	65	
Turnout Gear Storage	110	385	385	110	110	399	399	391	391	340	(30) Lockers
Shop / Tool Room / Light Maintenance		180	180	0	0	89	89	93	93	165	single bench required
Medical Cleaning / Decontamination		190	190	0	0	257	261	195	195	286	
Dirty Restroom		65	65	0	0	51	52	68	68	76	
SCBA Fill Room		100	100	0	0	60	60	96	96	93	check to verify exg equipment
Medical Supply Storage		80	80	0	0	63	63	70	70	93	
Quartermaster Storage	118	200	200	120	120	205	213	197	197	212	
General Storage	66	150	150	88	90	161	125	152	170	407	
Apparatus Bay Cleaning Closet		80	80	0	0	68	71	51	51	61	
SUBTOTAL	**570**	**1,495**	**1,495**	**318**	**320**	**1,437**	**1,420**	**1,371**	**1,389**	**1,798**	
Grand Total Fire Department	**5,057**	**12,415**	**9,870**	**5,087**	**6,169**	**10,162**	**9,015**	**9,692**	**9,568**	**10,530**	

E-2

Killington Public Safety Complex

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Shared Spaces											
PUBLIC AREAS											
Training Room / EOC	940	825	825	983	983	940	964	909	909	825	go back to requested
Training Prop Storage		100	100			100	78	100	100	70	
Training AV & Table / Chair Storage		100	100			130	129	130	130	94	
SUBTOTAL	**1,002**	**1,630**	**1,025**	**983**	**983**	**1,170**	**1,171**	**1,139**	**1,139**	**989**	
SHARED SPACES											
Server Room		100	40	0	0	70	69	72	72	48	possibly a closet off dispatch
Janitor's Closet		30	30	21	19	50	54	40	40	35	
SUBTOTAL	**0**	**530**	**70**	**21**	**19**	**120**	**123**	**112**	**112**	**83**	
Grand Total Shared Spaces	**1,002**	**2,160**	**1,095**	**1,004**	**1,002**	**1,290**	**1,294**	**1,251**	**1,251**	**1,072**	
BUILDING SYSTEMS + CIRCULATION											
Stairs	54	1,080	1080	185	185	526	419	380	380	495	2 @ 180 SF/Flr x 3 Flrs
Elevator		160	160	73	73	80	80	63	63	76	3 Flrs @ 53 SF/FLR
Elevator Machine Room		80	80	60	60	58	55	57	57	59	
Mechanical/Electrical	20	500	500	20	20	484	504	359	363	288	
SUBTOTAL	**74**	**1,820**	**1,820**	**338**	**338**	**1,148**	**1,058**	**859**	**863**	**918**	
SUMMARY											
Police Department	0	3,950	1,690	0	0	1,473	0	1,259	1,269	0	
Shared Spaces	1,076	2,160	1,095	1,004	1,002	1,290	1,294	1,251	1,251	1,072	
Subtotal	1,076	6,110	2,785	1,004	1,002	2,763	1,294	2,510	2,520	1,072	
Infrastructure @ 15%		917	418								
Building Circulation @ 20%		1,222	557								
SUBTOTAL SF	1,076	**8,249**	**3,760**	**1,004**	**1,002**	**2,763**	**1,294**	**2,510**	**2,520**	**1,072**	
Fire Department	5,057	12,415	9,870	5,087	6,169	10,162	9,015	9,692	9,568	10,530	
Building Systems + Circulation		1,820	1,820	338	338	1,148	1,058	859	863	918	
Subtotal	5,057	14,235	11,690	5,425	6,507	11,310	10,073	10,551	10,431	11,448	
Infrastructure @ 12.5%		1,779	1,461								
Building Circulation @ 12.5%		1,779	1,461								

E-3

Killington Public Safety Complex

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
SUBTOTAL SF	5,057	17,794	14,613	5,425	6,507	11,310	10,073	10,551	10,431	11,448	
GRAND TOTAL SF	7,196	26,042	18,372	6,429	7,509	14,073	11,367	13,061	12,951	12,520	
Subtotals for Prioritization			*18,372*	*6,429*	*7,509*	*14,073*	*11,367*	*13,061*	*12,951*	*12,520*	
Actual Plans Area (GSF= incl walls, etc) (Used on Cost Projections)				*8,236*	*9,381*	*17,725*	*15,486*	*16,609*	*14,980*	*15,563*	

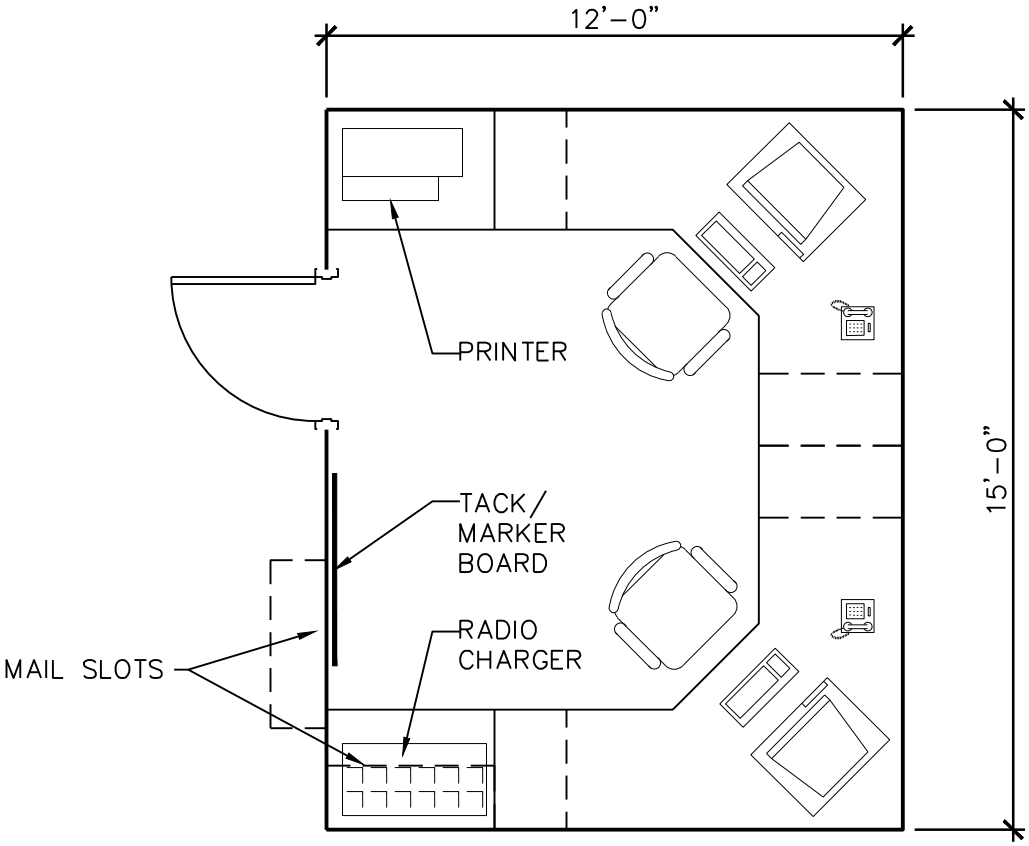
15-Yr **High** Priority Total SF **18,372** (reflects increase in FD spaces due to larger App Bay)

15-Yr Including **Med** Priority Total SF **19,477**

15-Yr Including **Low+Med** Priority Total SF **22,806**

E-4

FIRE - PUBLIC SPACES



- MAIL SLOTS LOCATED ROOM OR IMMEDIATELY ADJACENT IN CORRIDOR

180 SF

DISPATCH / REPORTS

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

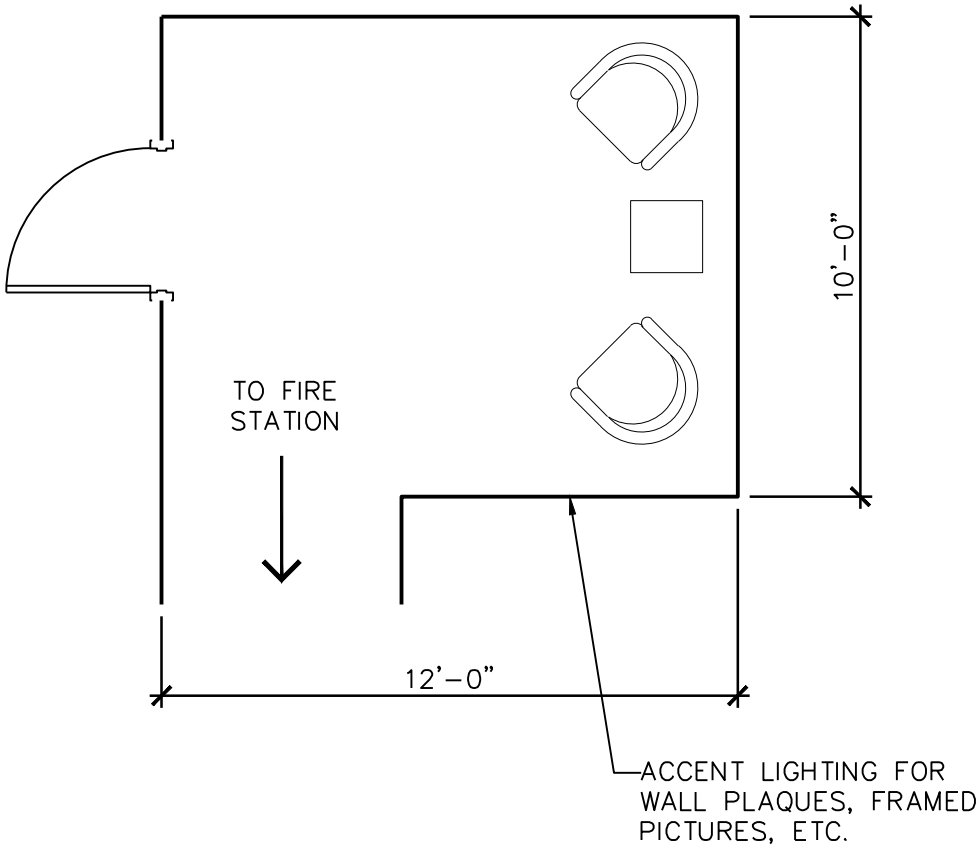
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



120 SF

LOBBY / WAITING

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

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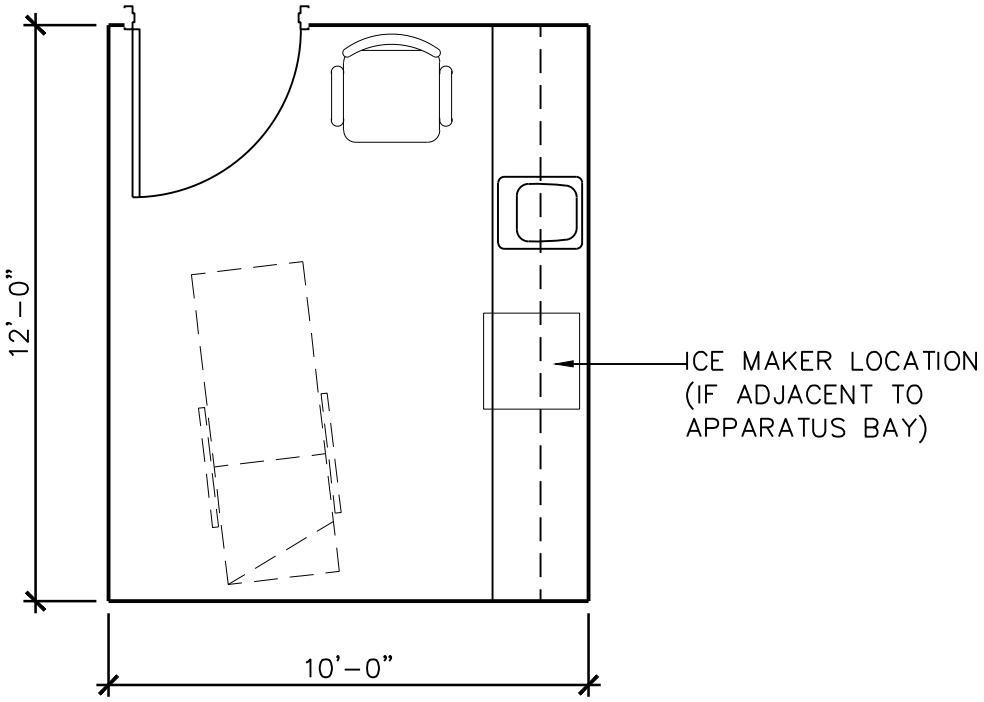

120 SF

TRIAGE ROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

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DATE

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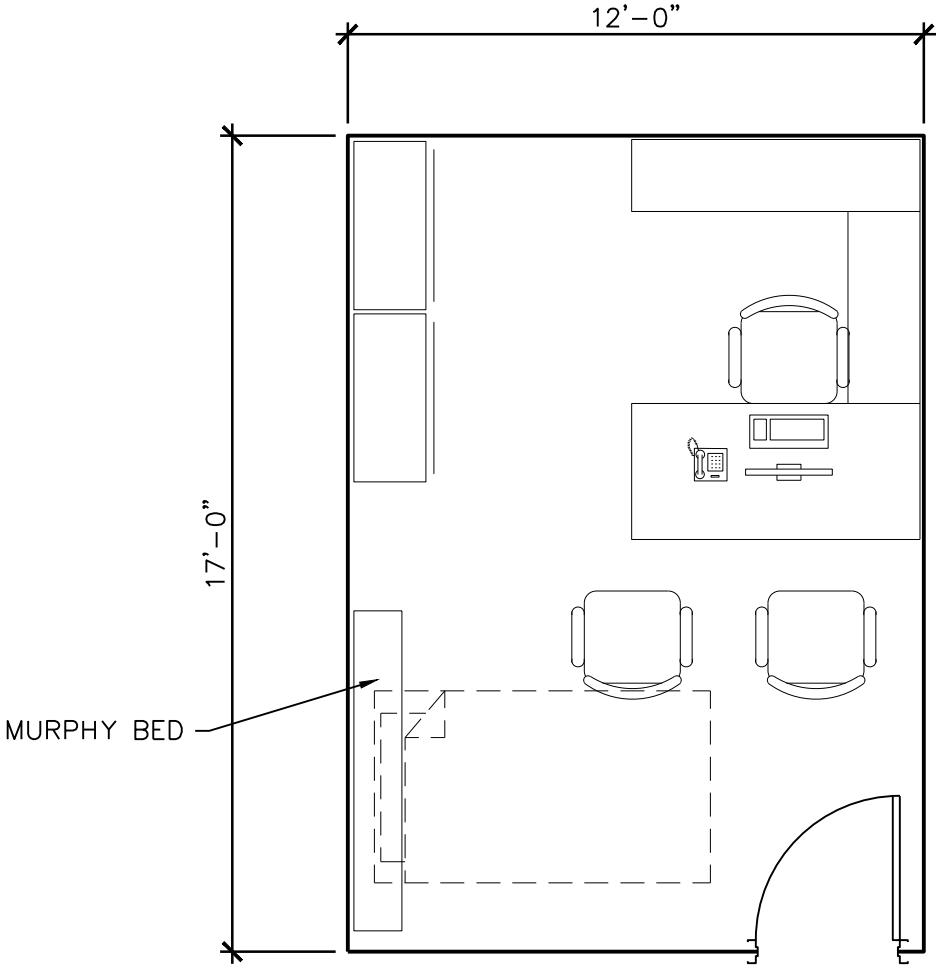
ADMINISTRATION SPACES



- PROVIDE WINDOW WITH VIEW TO KILLINGTON RD.

200 SF

FIRE CHIEF OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

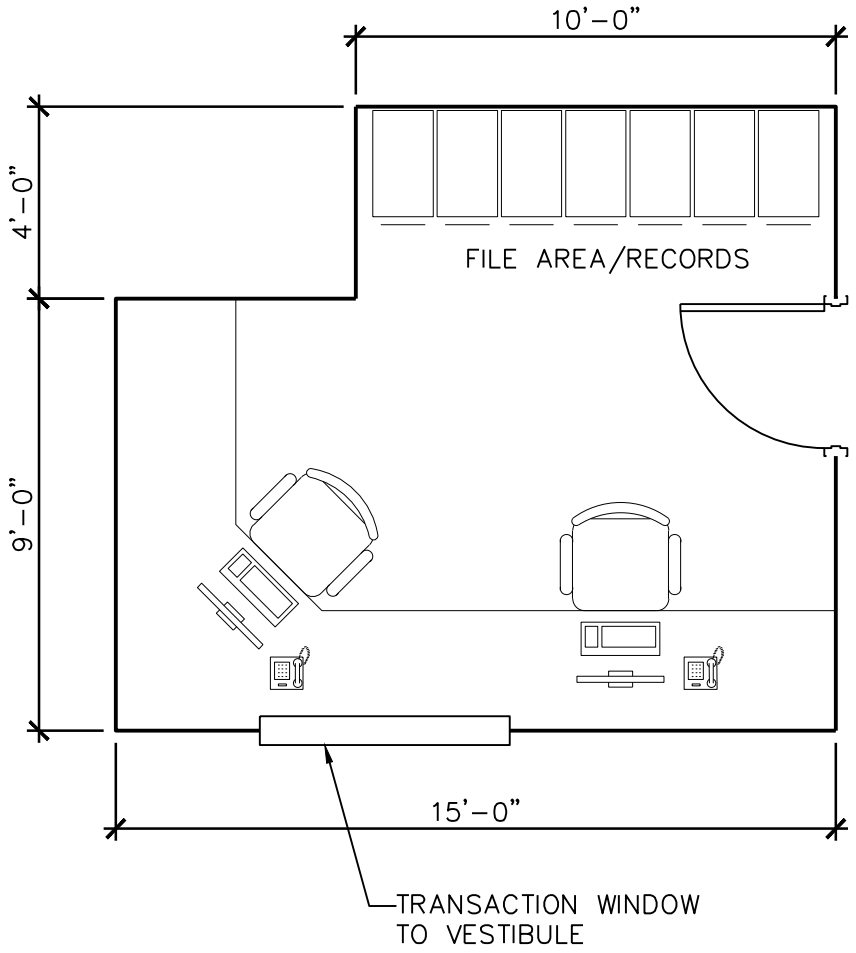
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-10



175 SF

ADMIN ASSISTANT / RECORDS

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

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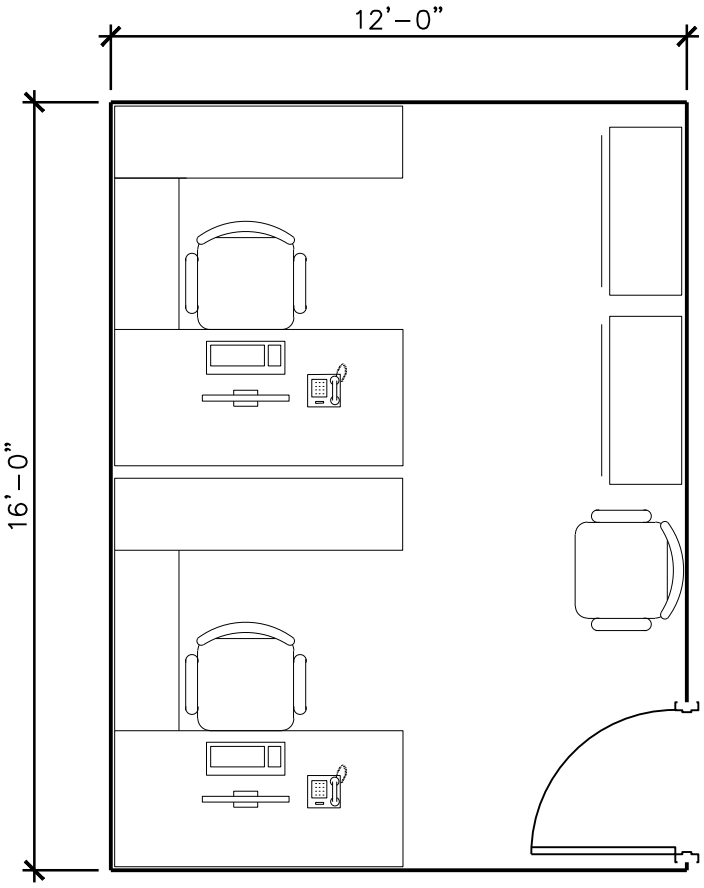

190 SF

DEPUTY FIRE CHIEFS' OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

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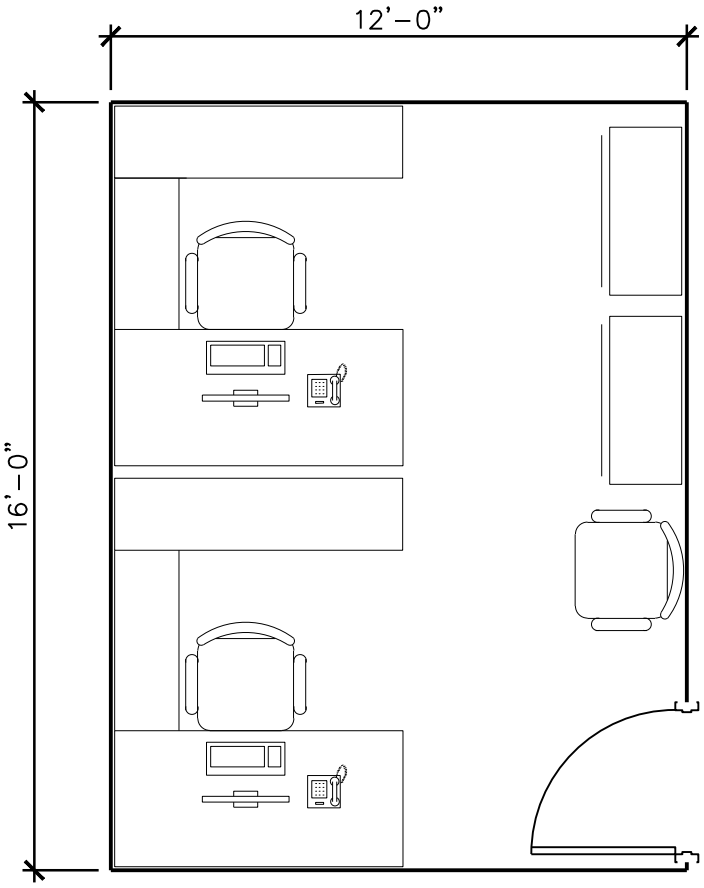
DATE

NOVEMBER 13, 2013

E-12



190 SF

PRES / VP OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

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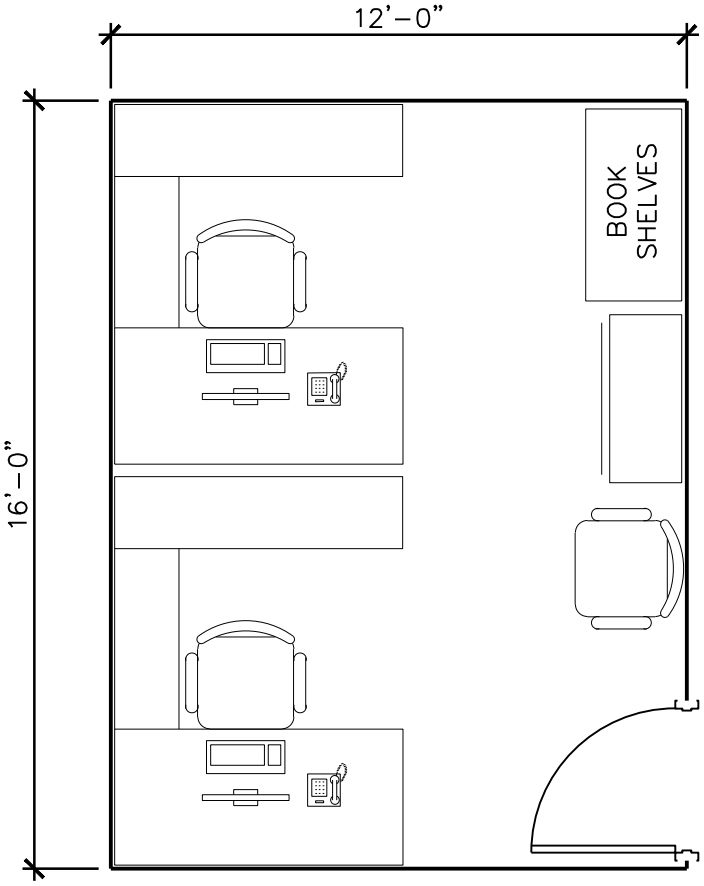
DATE

NOVEMBER 13, 2013

E-13



190 SF

TRAINING OFFICER

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

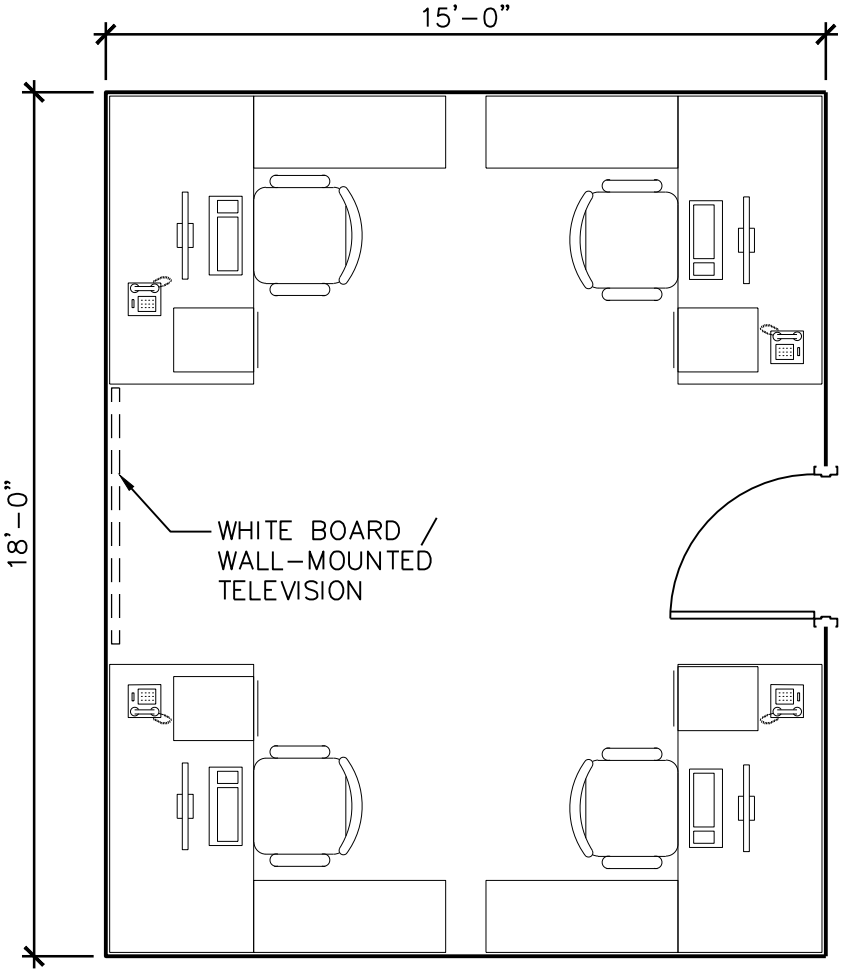
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-14



270 SF

CAPTAIN / LIEUTENANT OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

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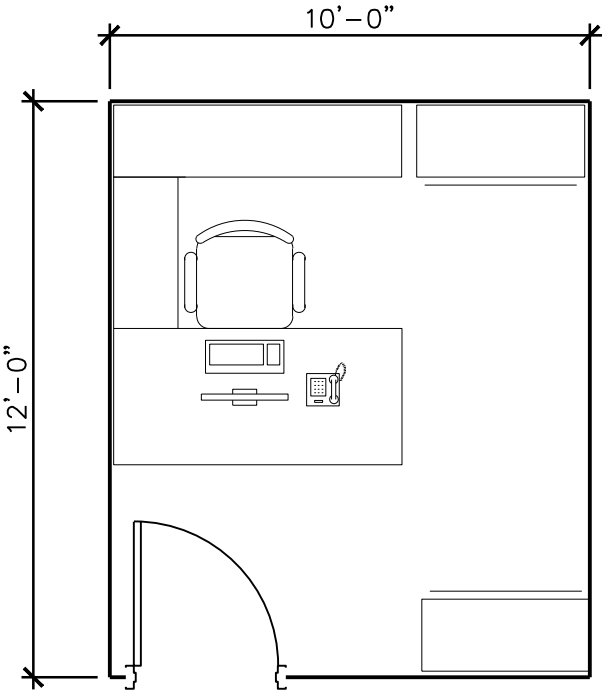
NOVEMBER 13, 2013

E-15



120 SF

EMS OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

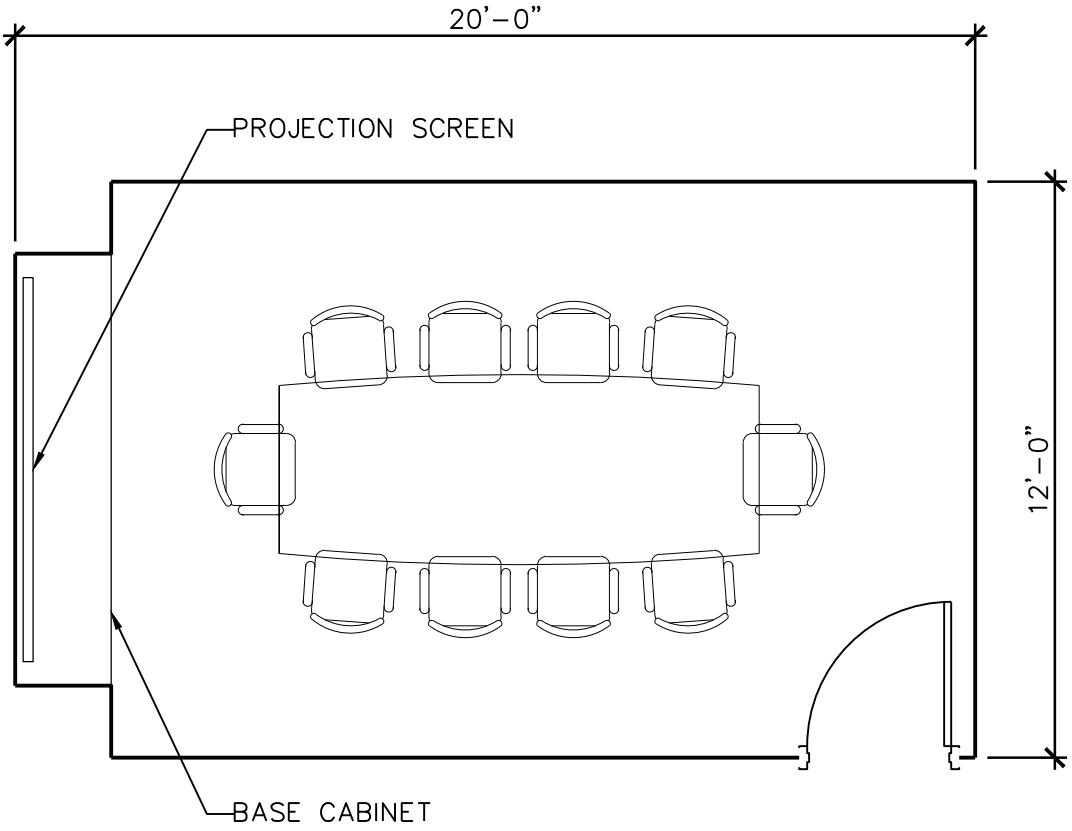
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-16



240 SF

CONFERENCE ROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

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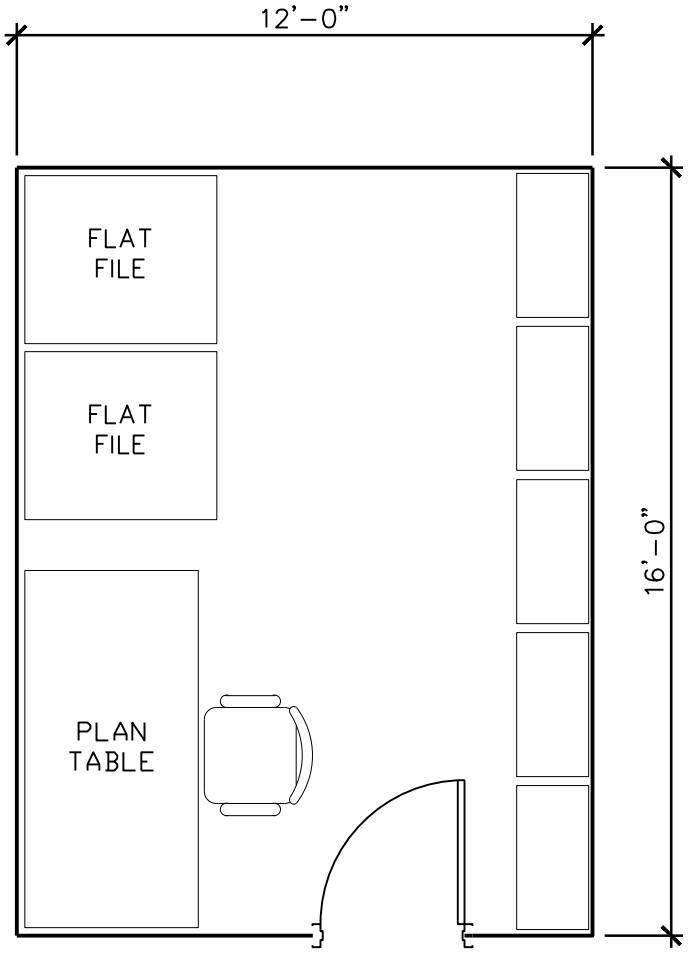

192 SF

FIRE PREVENTION / FILE STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

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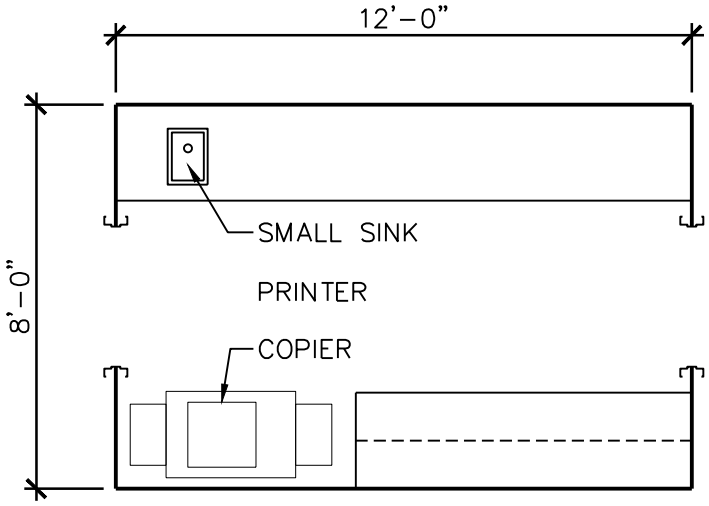

80 SF

WORK ROOM / OFFICE EQUIPMENT

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

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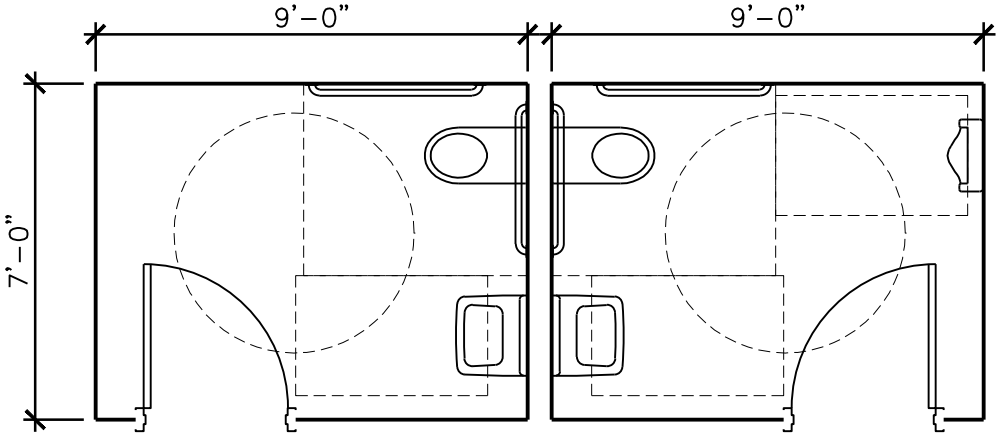


120 SF

STAFF RESTROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

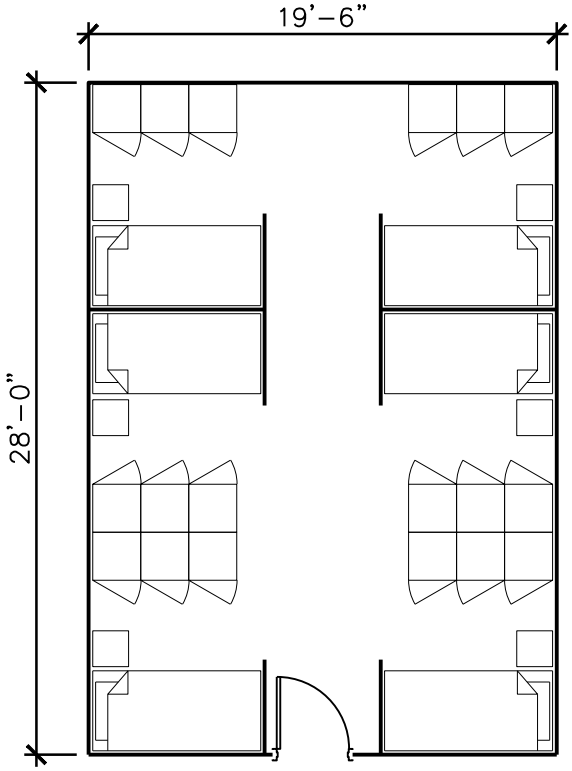
900414.01

DATE

NOVEMBER 13, 2013

E-20

FIRE - LIVING SPACES



550 SF

SLEEPING QUARTERS

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

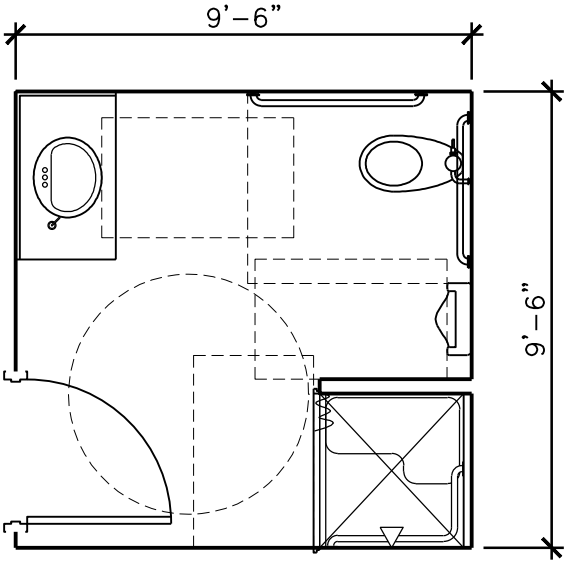
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-22



90 SF

RESTROOM / SHOWER ROOM (3)

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

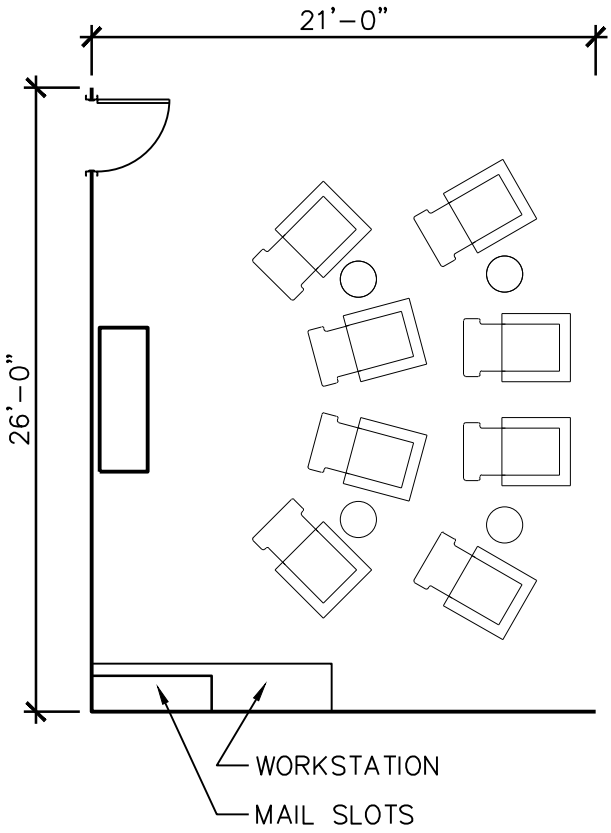
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-23



ROOM ADJACENT TO DINING ROOM
(NO WALLS SEPARATING)

545 SF

DAY ROOM

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

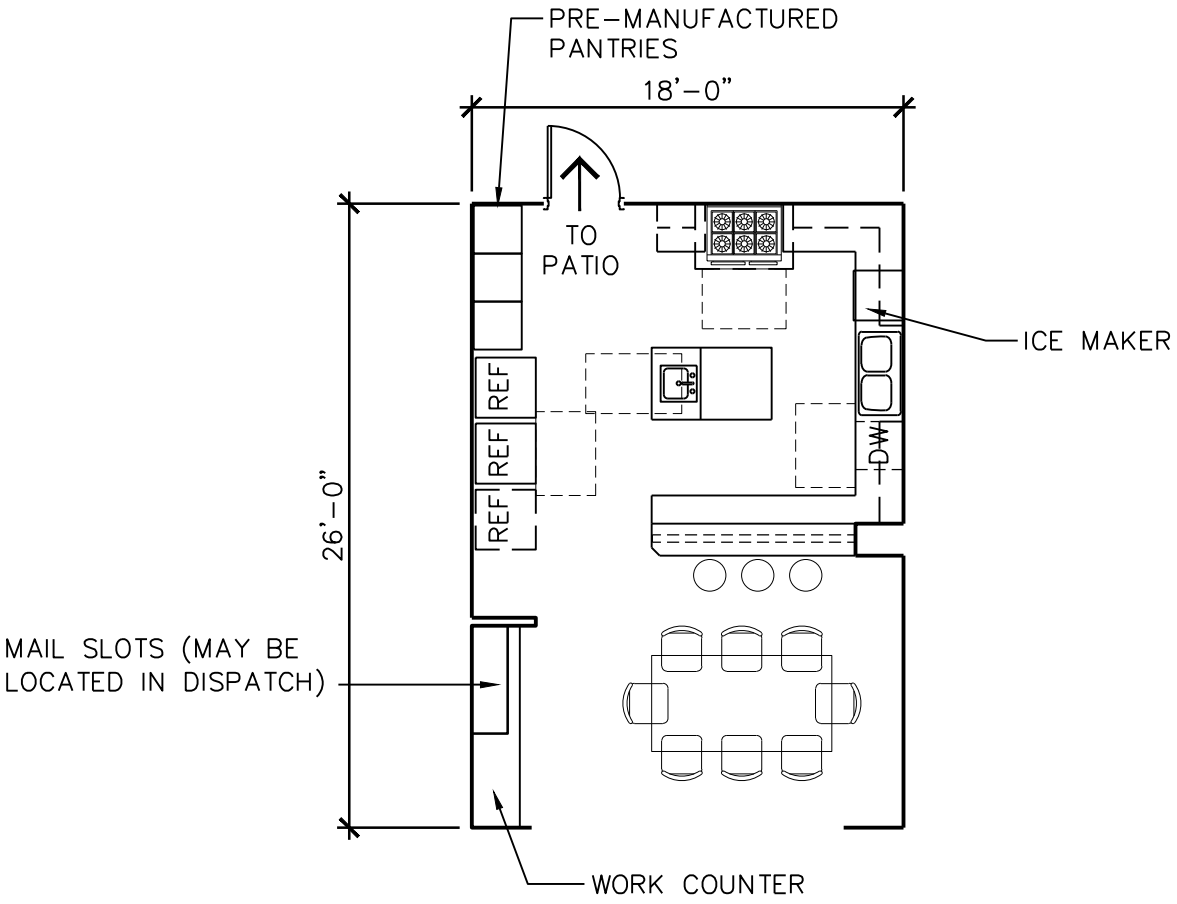
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-24



470 SF - 8 CREW

KITCHEN / DINING

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

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KILLINGTON POLICE / FIRE
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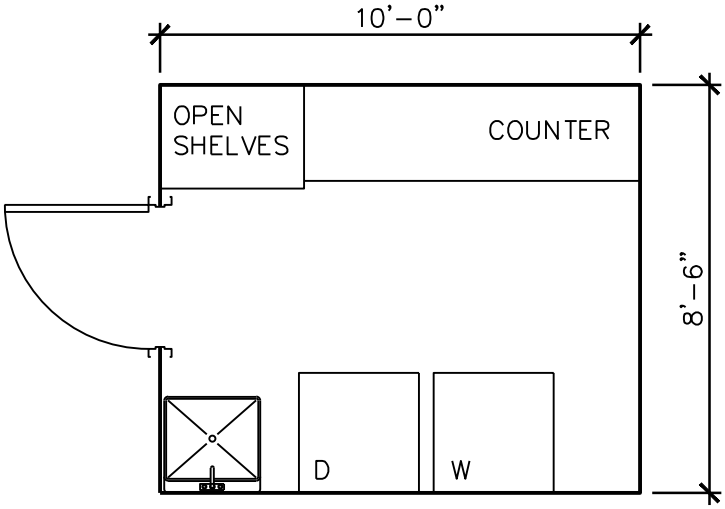
DATE

NOVEMBER 13, 2013

E-25



85 SF

DOMESTIC LAUNDRY

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

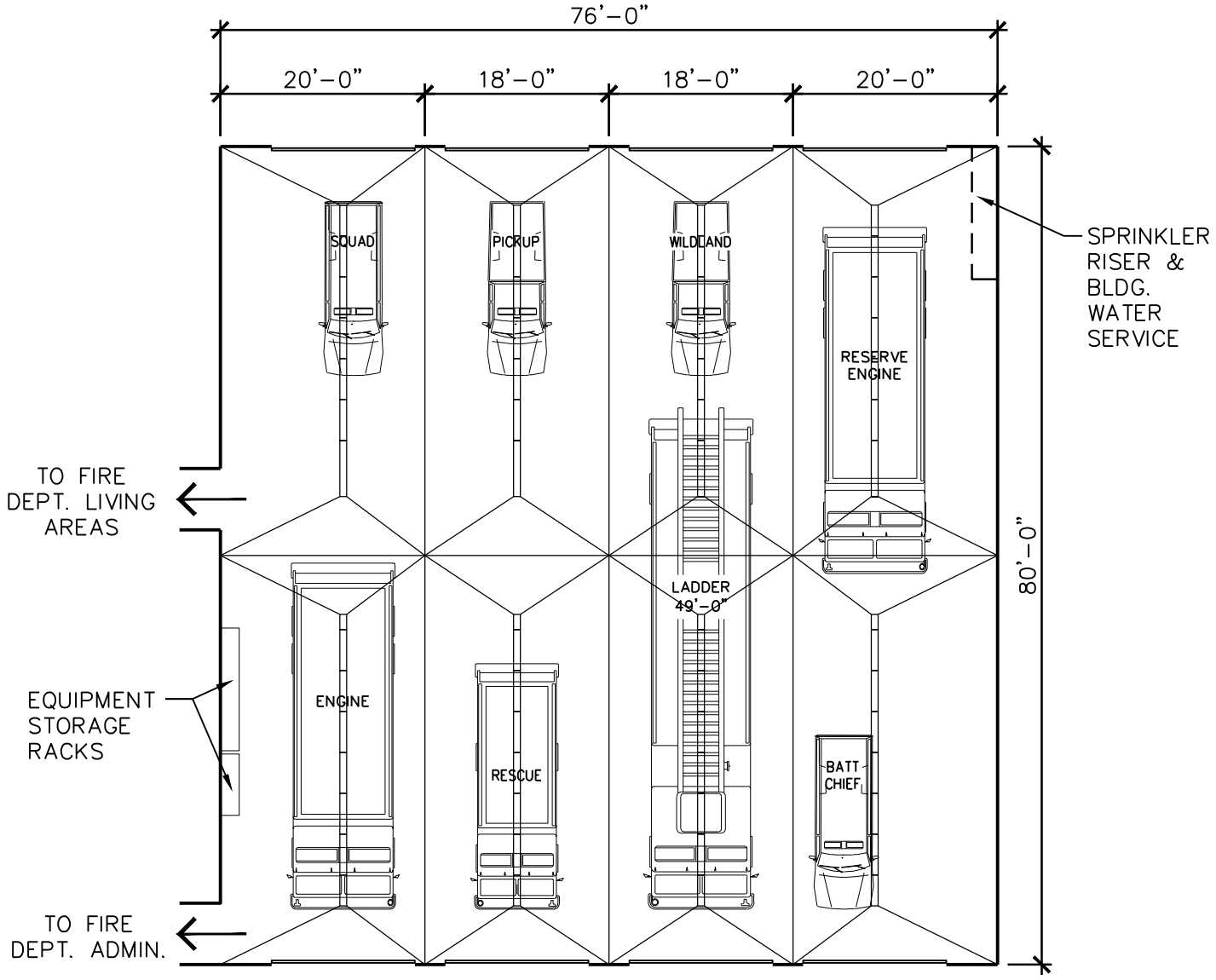
900414.01

DATE

NOVEMBER 13, 2013

E-26

FIRE - APPARATUS BAY



4 BAYS - 6,080 SF

APPARATUS BAYS

SCALE: 1/16"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

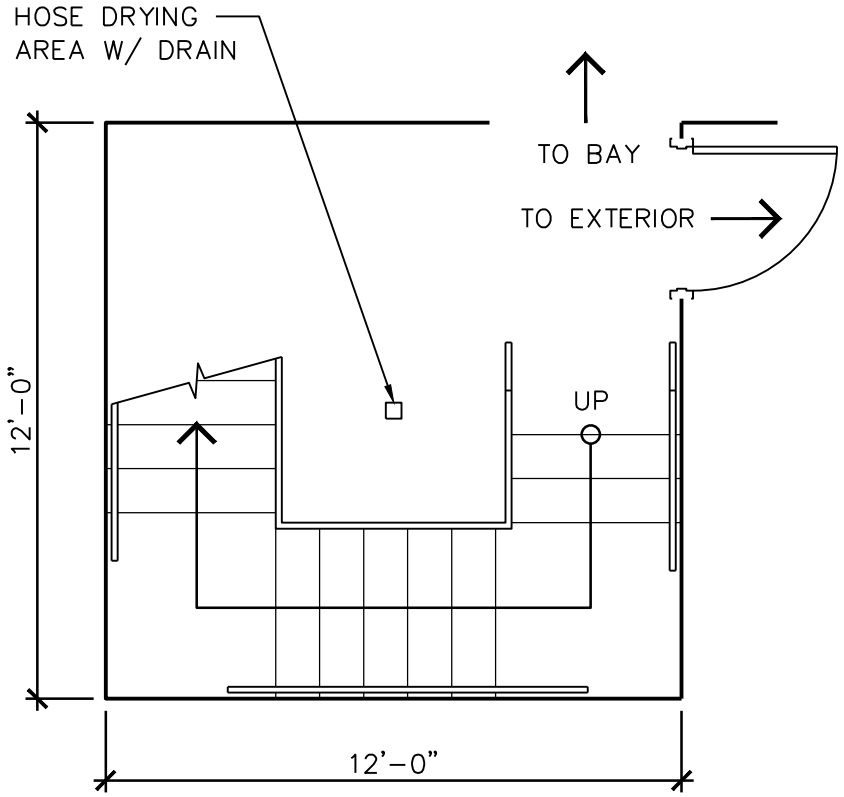
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-28



144 SF / LEVEL

TRAINING / HOSE TOWER

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

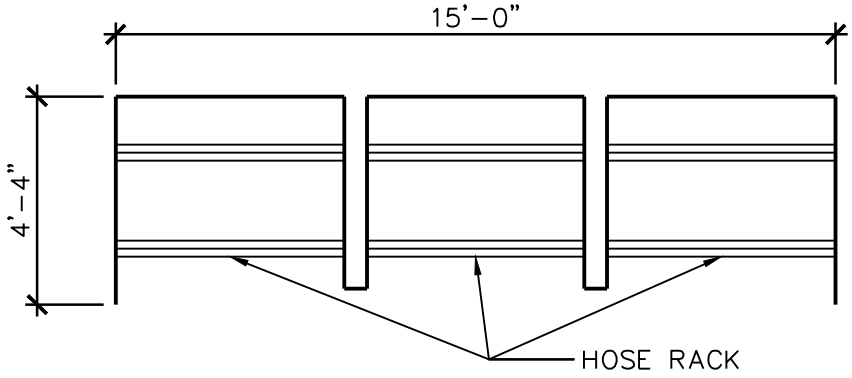
900414.01

DATE

NOVEMBER 13, 2013

E-29

FIRE - OPERATIONS SUPPORT SPACES



65 SF

HOSE STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

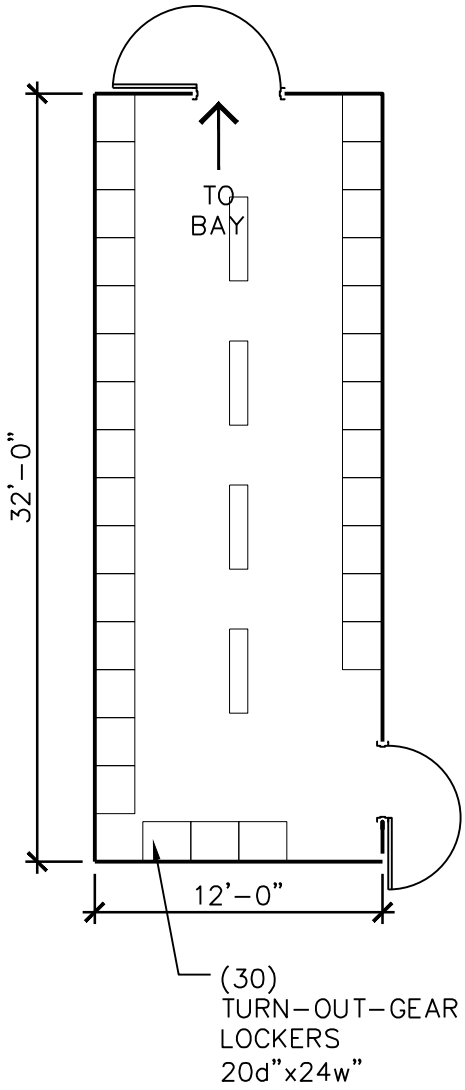
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



385 SF (30 LOCKERS)

TURN OUT GEAR

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

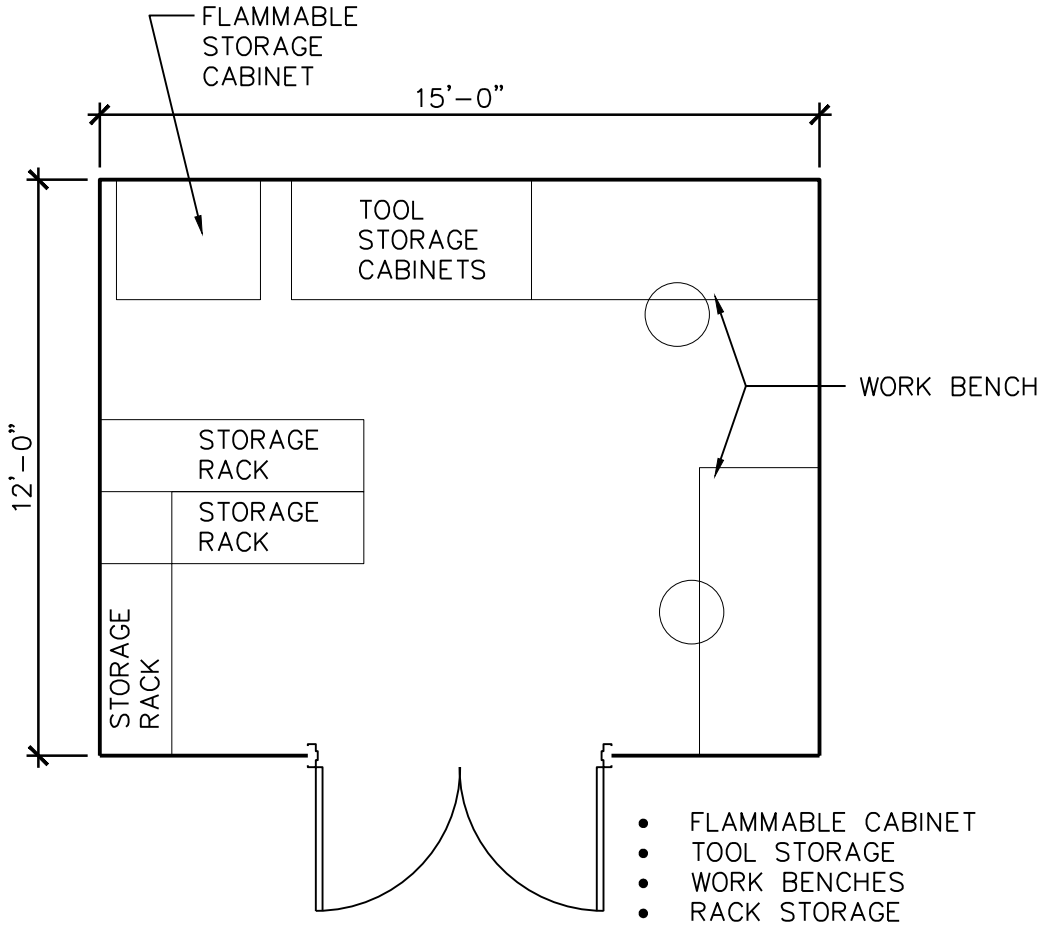
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-32



180 SF

SHOP/TOOL ROOM/LIGHT MAINT.

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

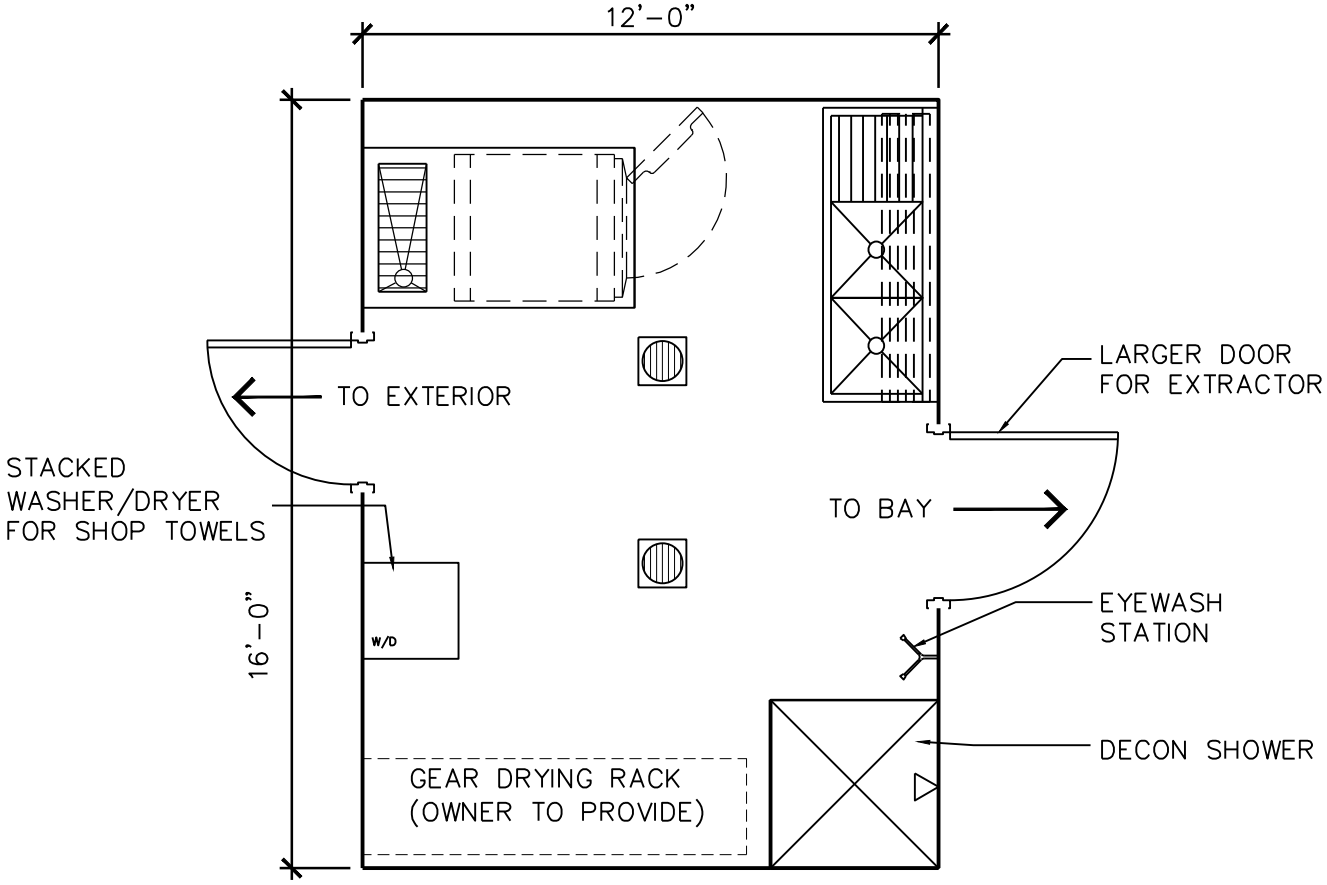
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-33



- ADJACENT TO BAYS
- ADJACENT TO DIRTY TOILET
- CLOSE PROXIMITY TO GENERAL STORAGE

192 SF

MEDICAL CLEANING / DECONTAMINATION

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

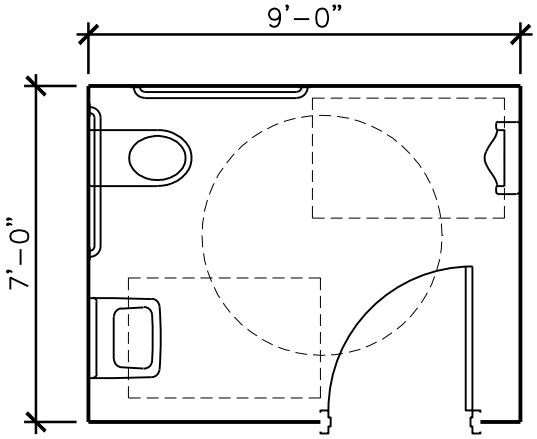
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



65 SF

DIRTY RESTROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

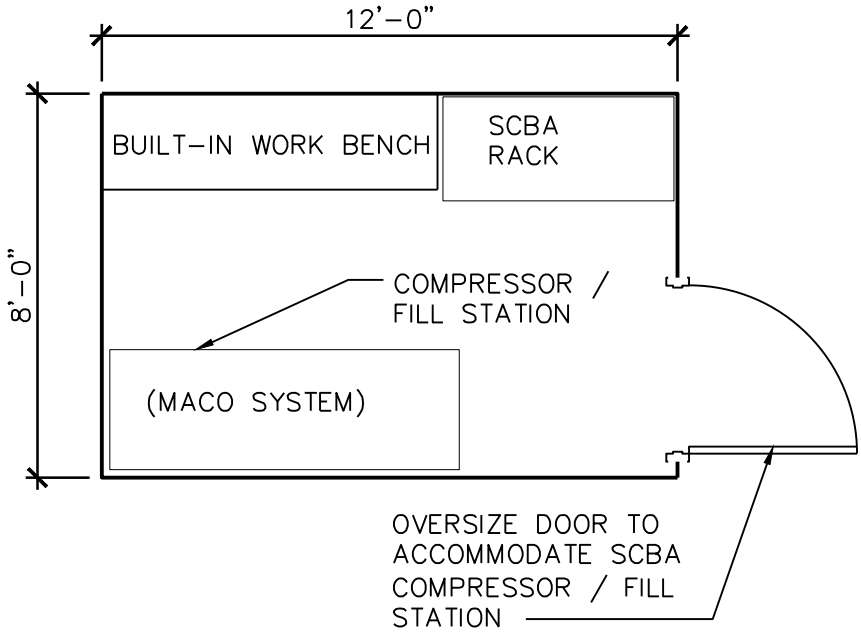
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



100 SF

SCBA ROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

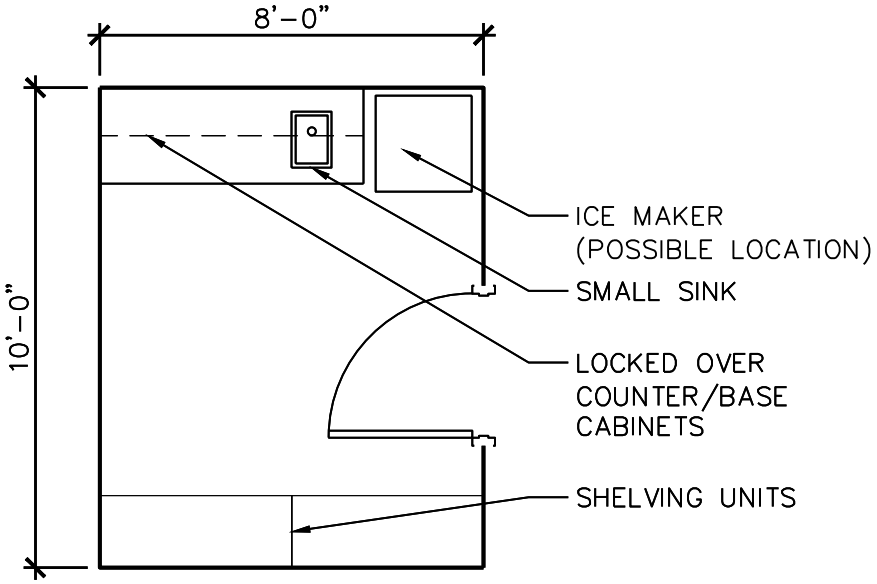
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



80 SF

MEDICAL SUPPLY STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

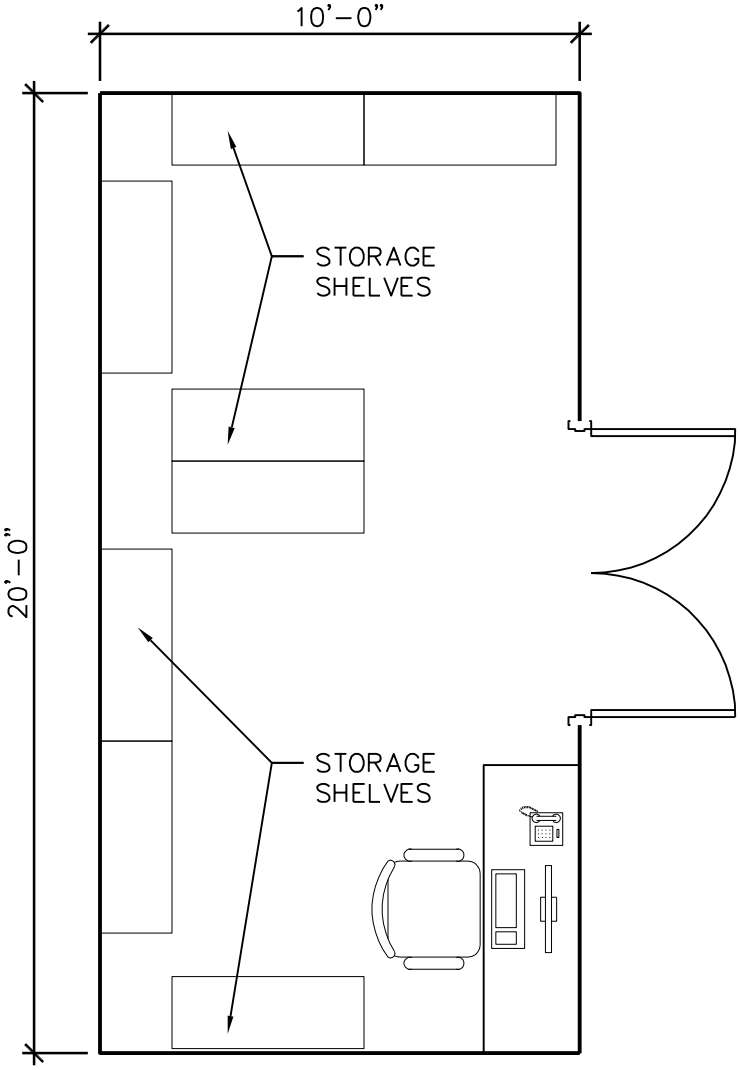
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



200 SF

QUARTERMASTER STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

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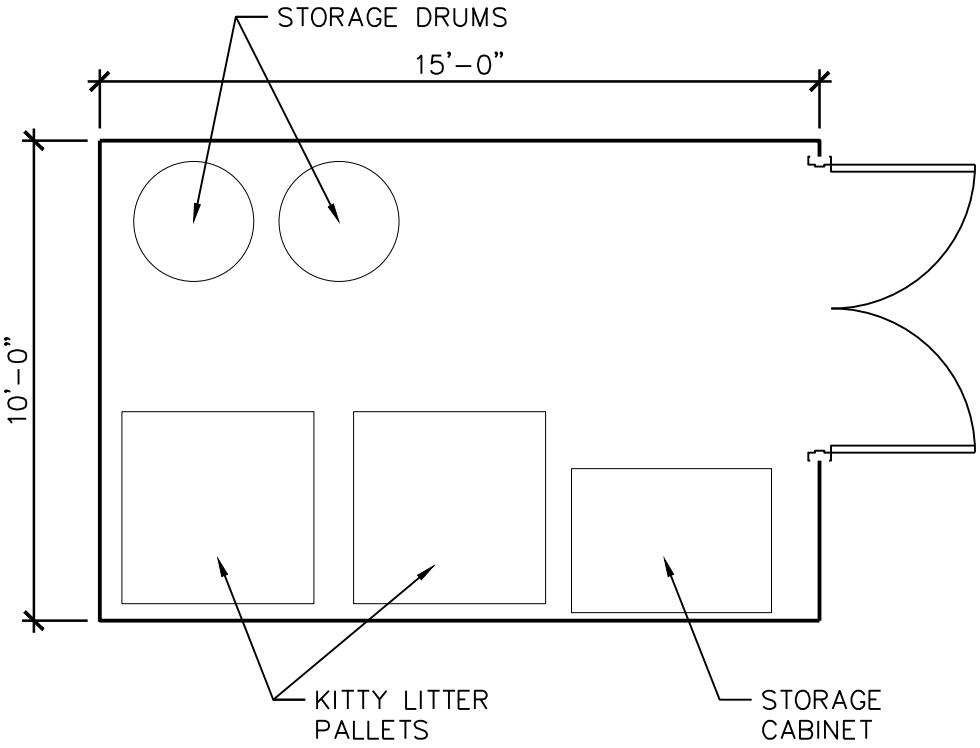


150 SF

GENERAL STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

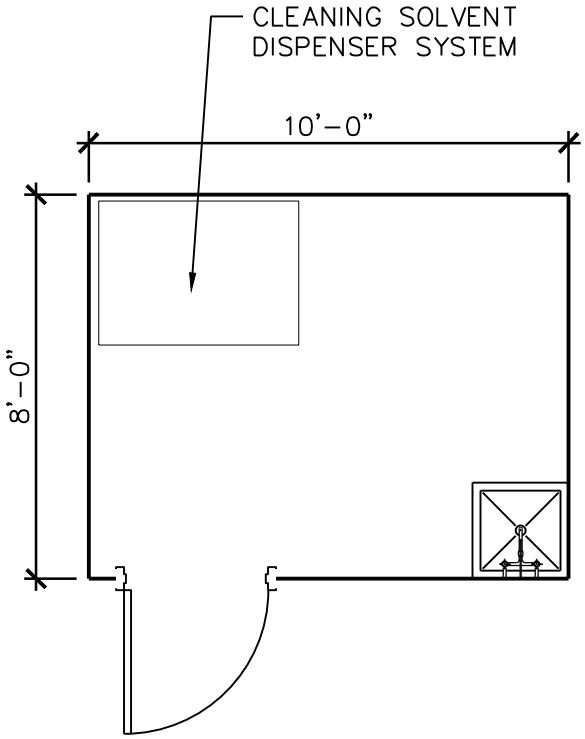
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



80 SF

APPARATUS BAY CLEANING CLOSET

SCALE: 1/4"=1'-0"

architecture + design

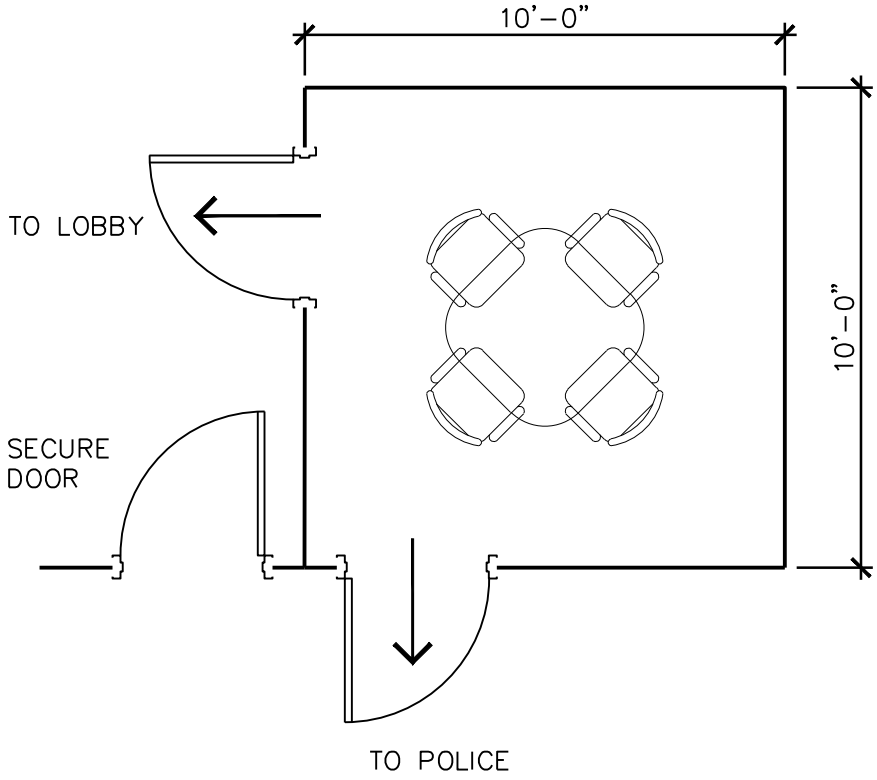
DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.
900414.01

DATE
NOVEMBER 13, 2013

POLICE - PUBLIC SPACES



100 SF

SOFT INTERVIEW / COMPLAINT

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

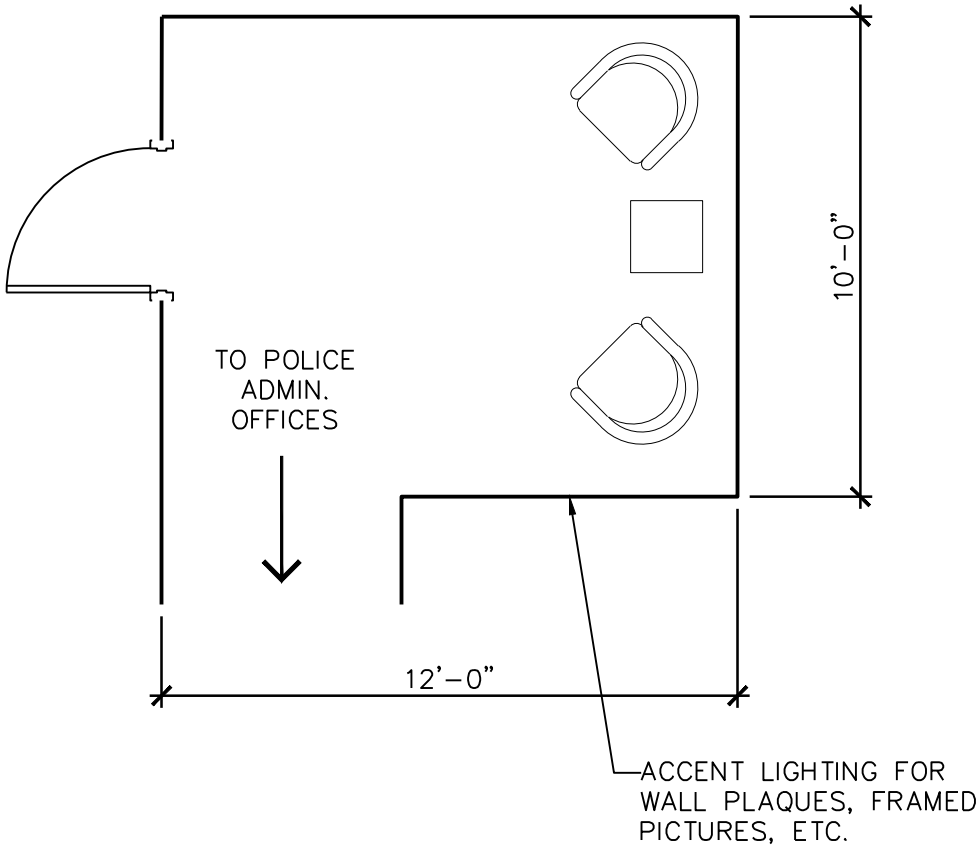
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-42



120 SF

LOBBY / WAITING

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

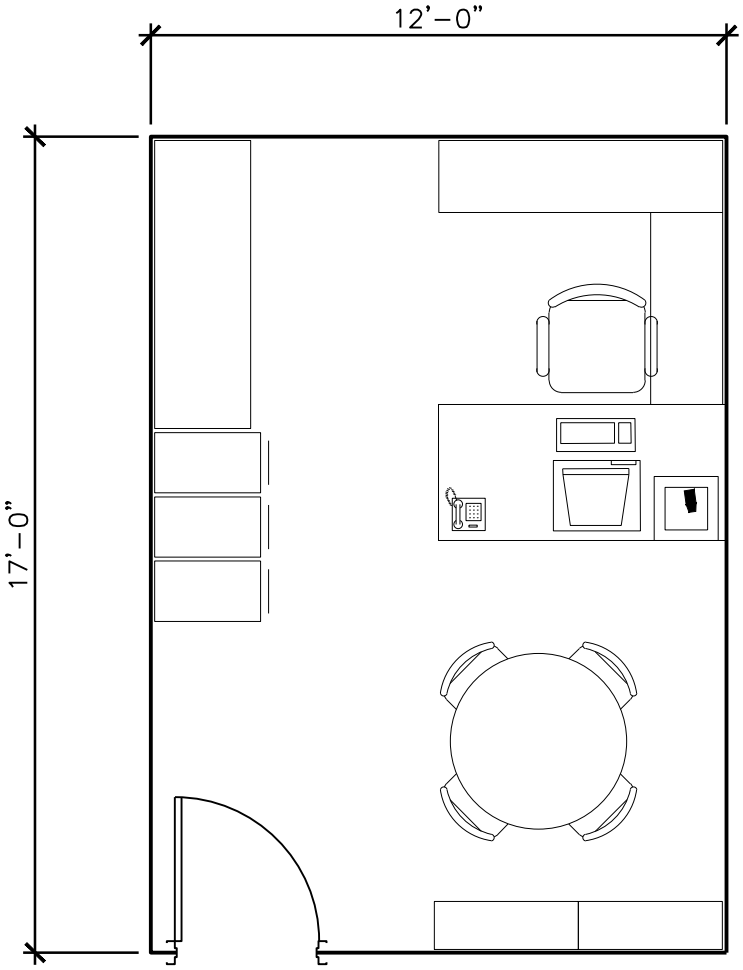
900414.01

DATE

NOVEMBER 13, 2013

E-43

POLICE - ADMINISTRATION SPACES



200 SF

POLICE CHIEF'S OFFICE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

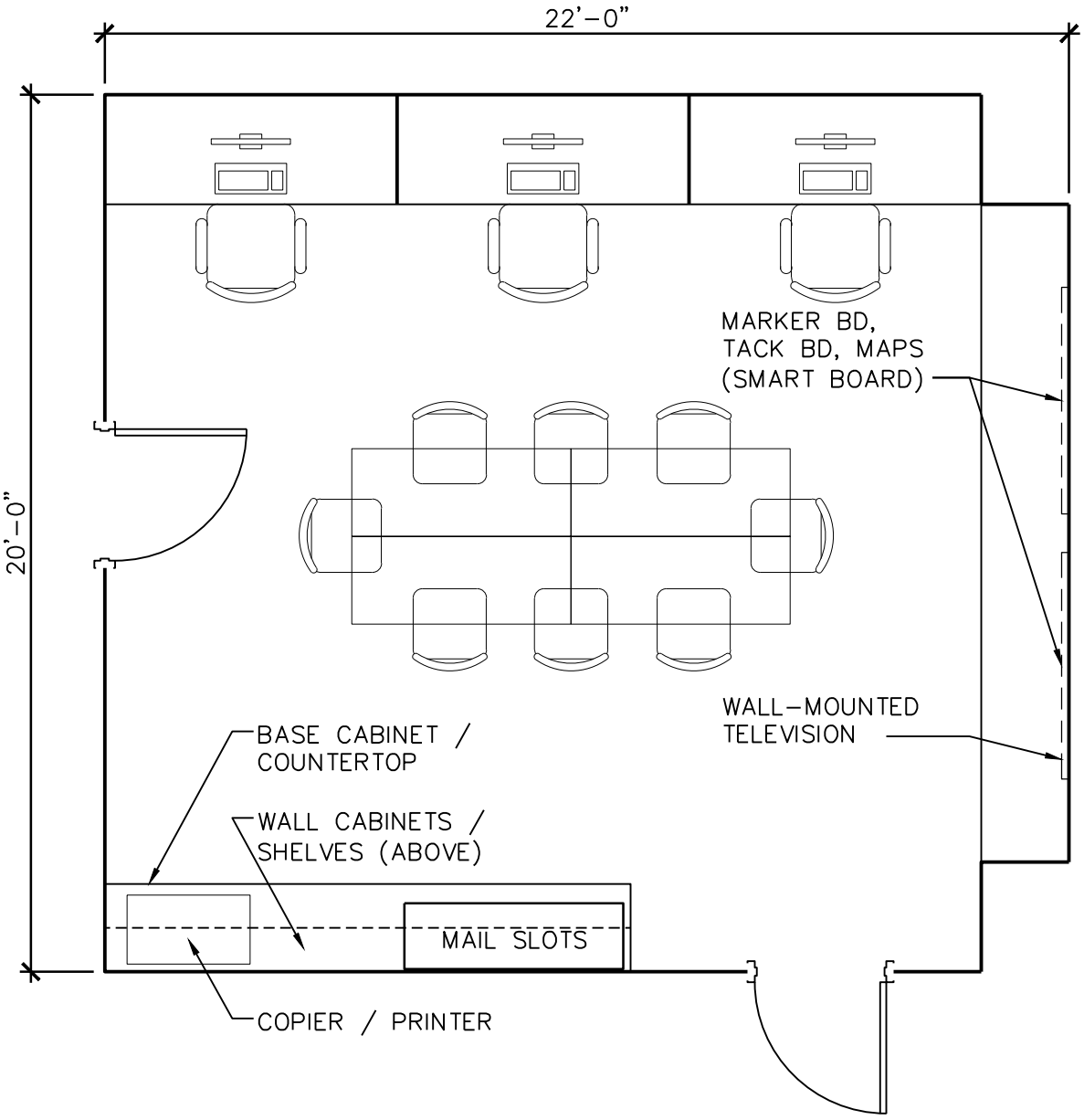
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

POLICE - OPERATIONS



- ADJACENT TO KITCHENETTE
- (3) WORKSTATIONS FOR REPORTS
- PROVIDE WINDOW TO BOOKING AREA

440 SF

PATROL ROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

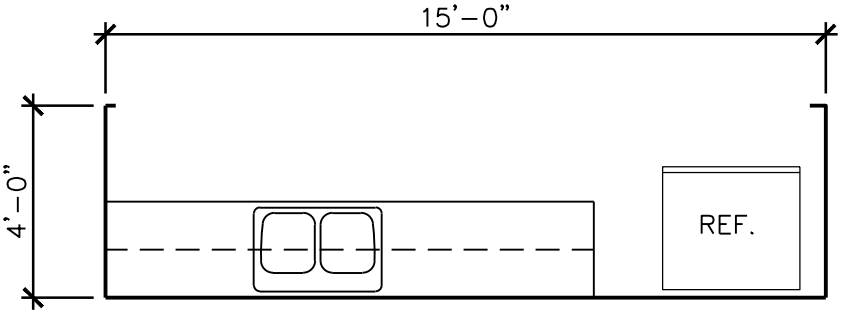
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



ADJACENT TO
PATROL ROOM

60 SF

KITCHENETTE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

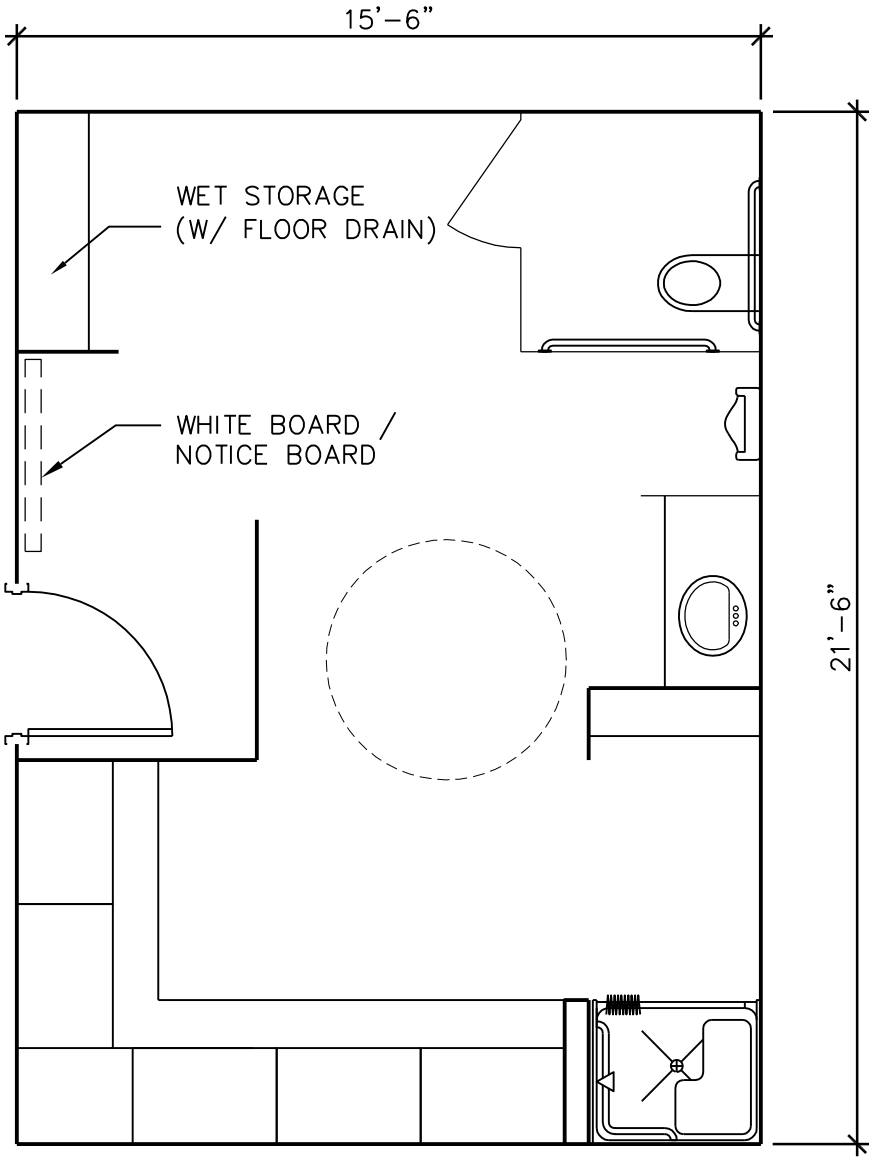
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



330 SF

MEN'S LOCKER ROOM (5)

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

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COMMISSION NO.

900414.01

DATE

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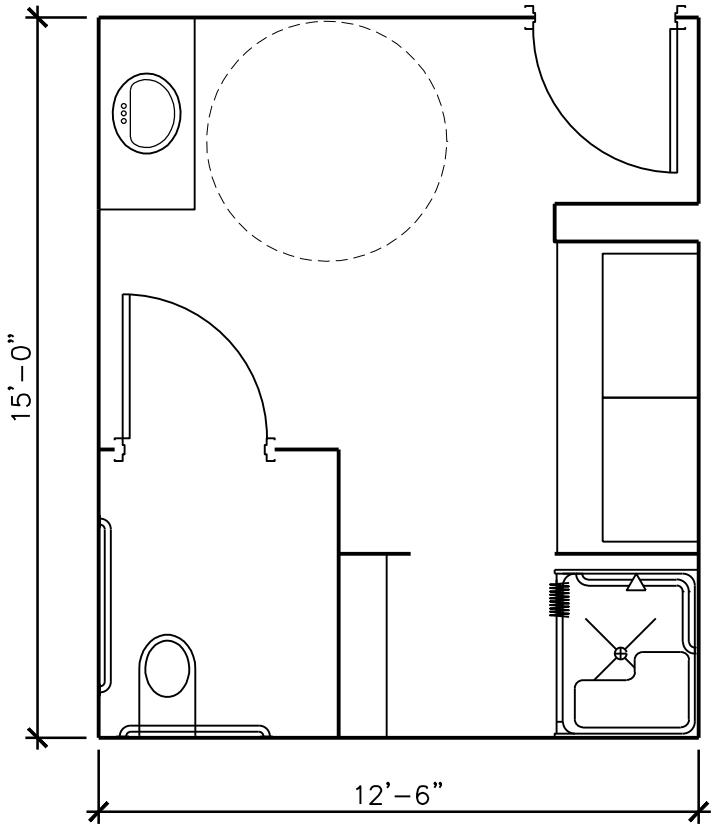

190 SF

WOMENS LOCKER ROOM (2)

SCALE: 1/4"=1'–0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

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COMMISSION NO.

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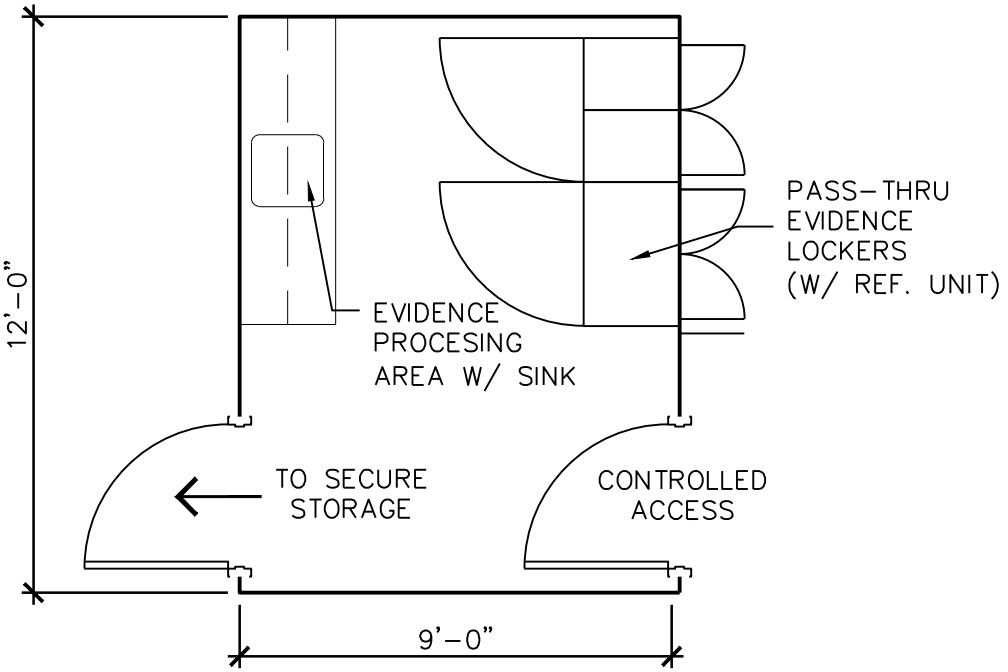
DATE

NOVEMBER 13, 2013

E-50



110 SF

EVIDENCE PROCESSING

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

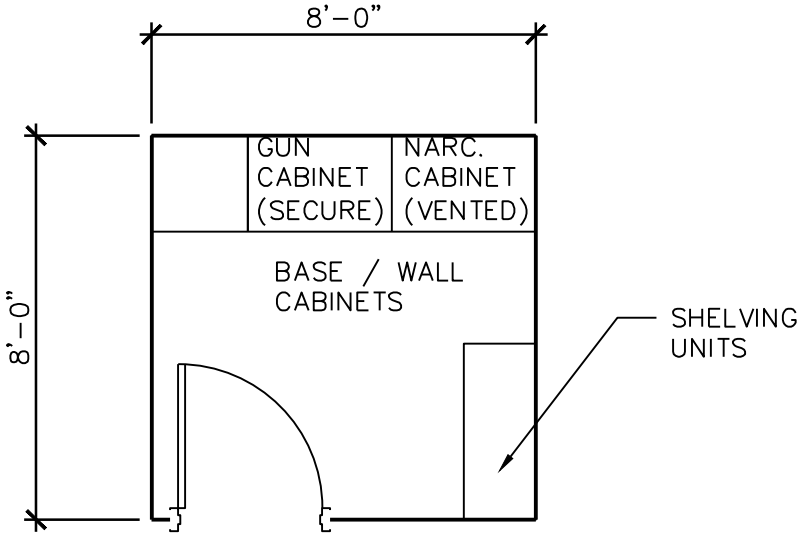
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



- PROVIDE SEPARATE ROOM VENTILATION AND/OR VENTILATED STORAGE FOR STORED MARIJUANA
- PROVIDE SECURED NARCOTICS CABINET AND SECURED GUN CABINET

65 SF

EVIDENCE STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

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COMMISSION NO.

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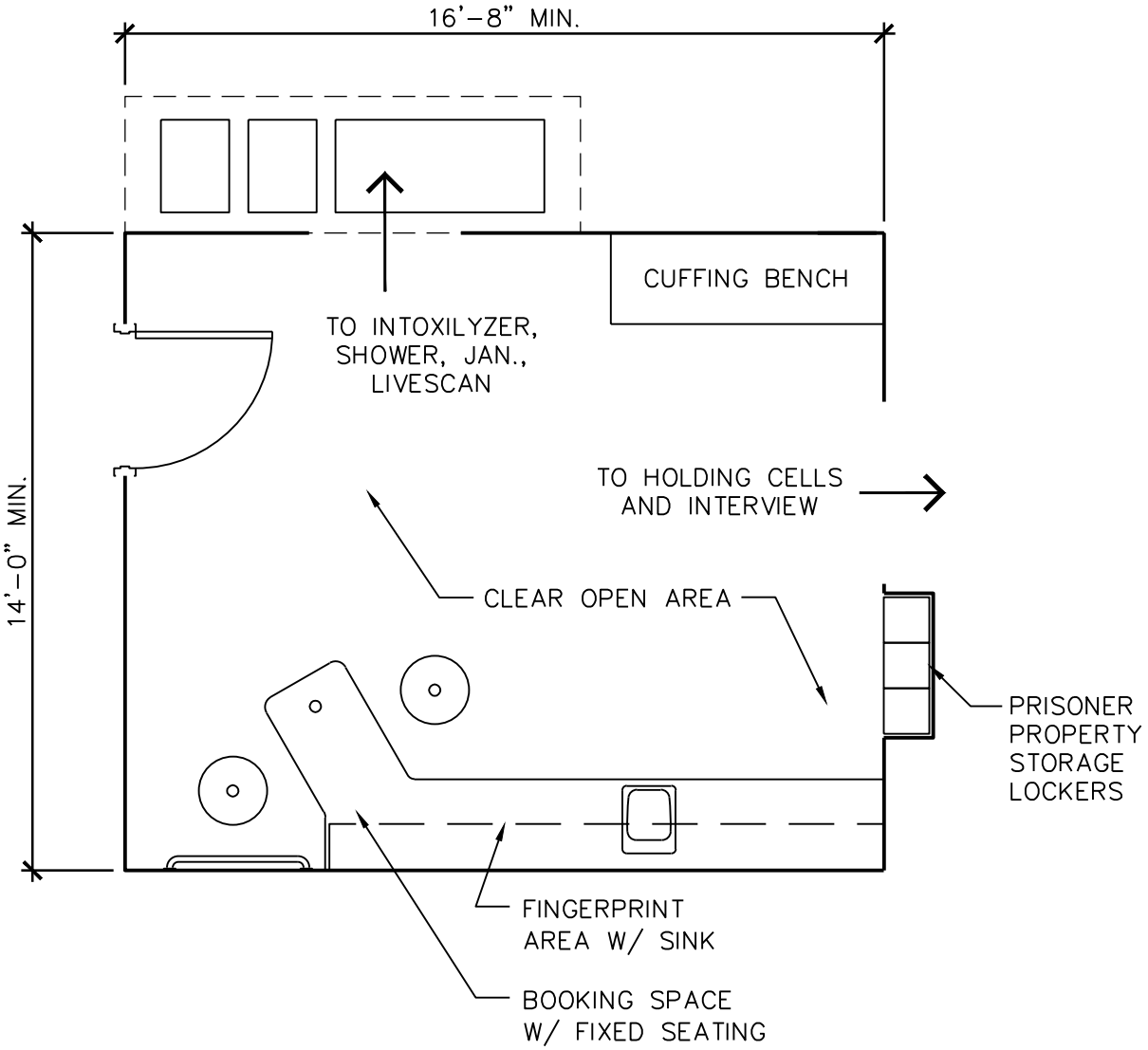
DATE

NOVEMBER 13, 2013



- WINDOW – VIEW FROM PATROL ROOM

233 SF

BOOKING + PROCESSING

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

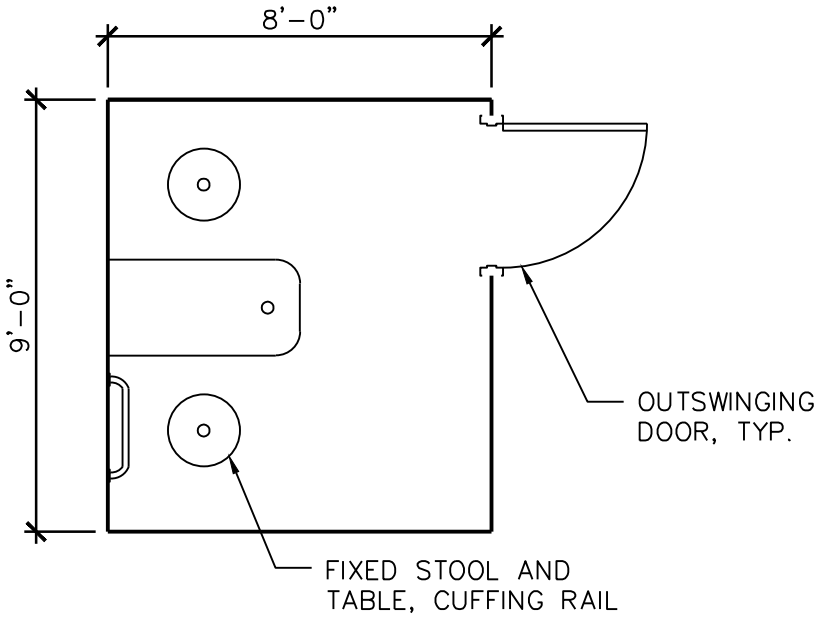
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



75 SF

HARD INTERVIEW / CUFFING

SCALE: 1/4"=1'-0"

architecture + design

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ARCHITECTS, INC.

PROJECT TITLE

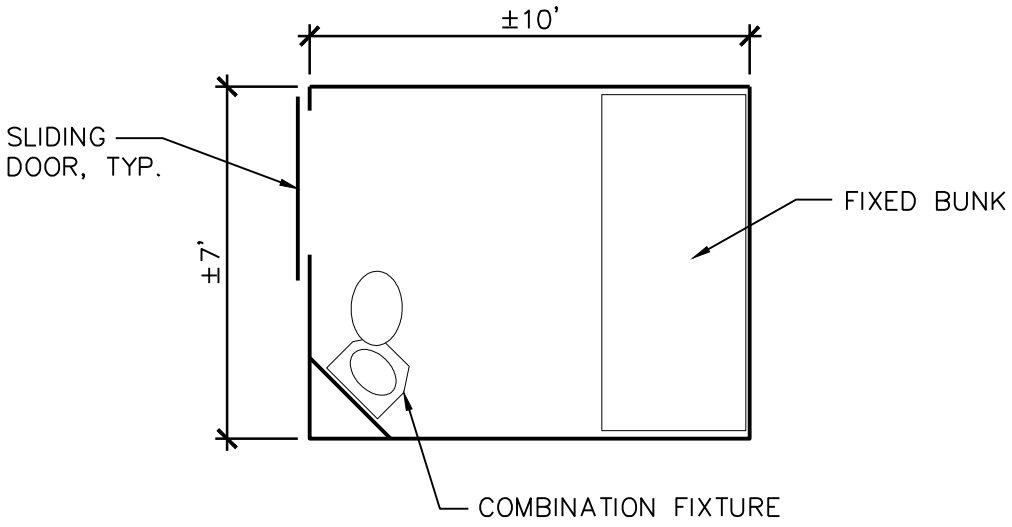
KILLINGTON POLICE / FIRE
STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



70 SF

DETENTION CELL - MALE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

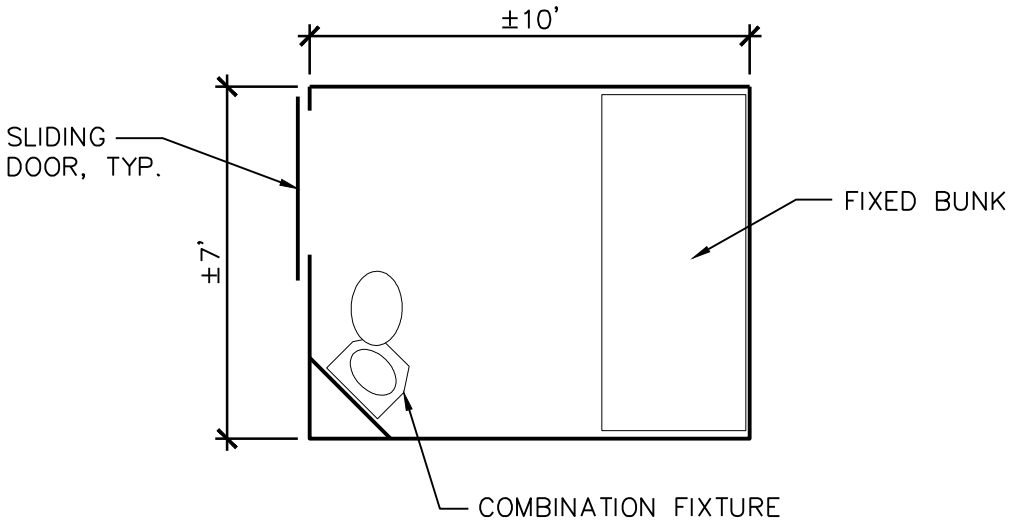
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-55



70 SF

DETENTION CELL - FEMALE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

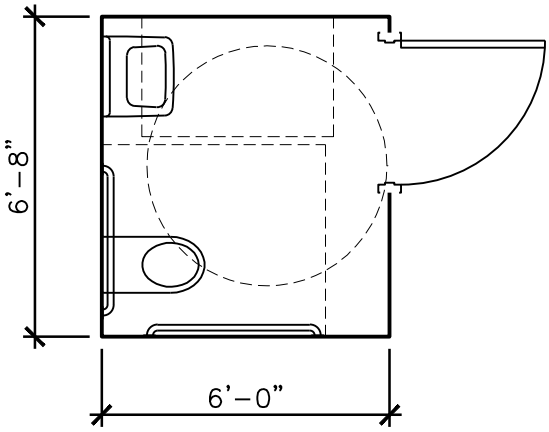
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



- WATER CLOSET WITH REMOTE FLUSH CONTROL
- ANTI-LIGATURE SECURITY GRAB BAR

40 SF

SECURE TOILET

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

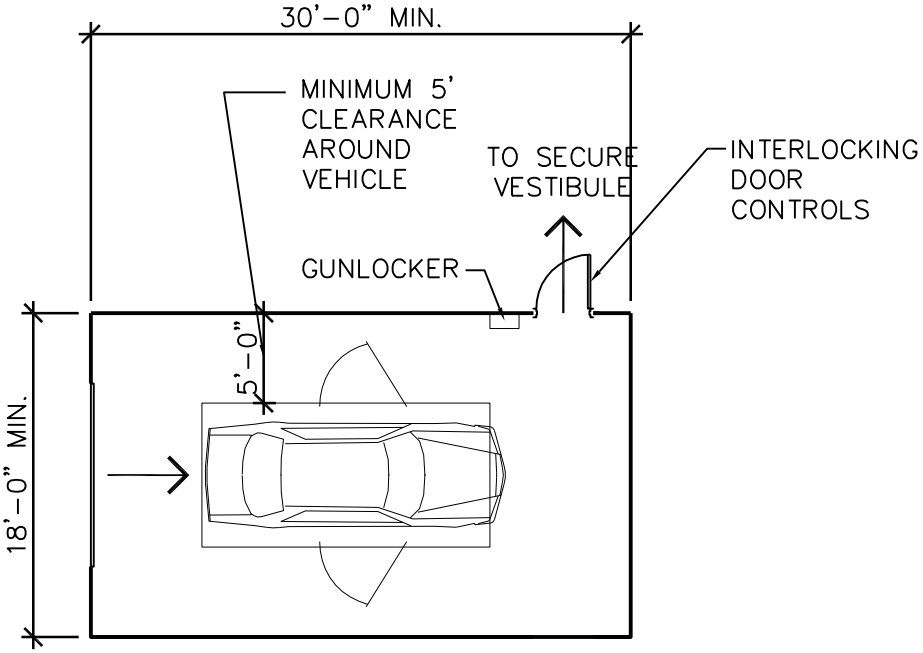
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



540 SF

SALLY PORT (SINGLE)

SCALE: 3/32"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

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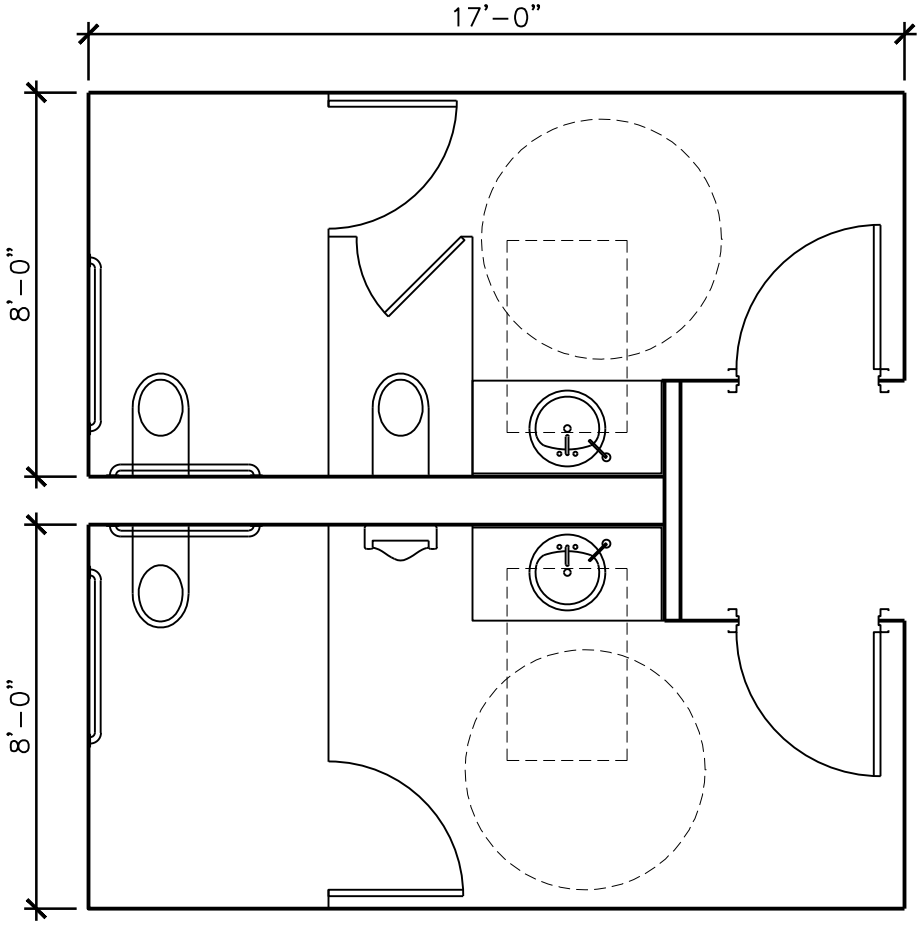
SHARED SPACES



289 SF

PUBLIC RESTROOMS

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

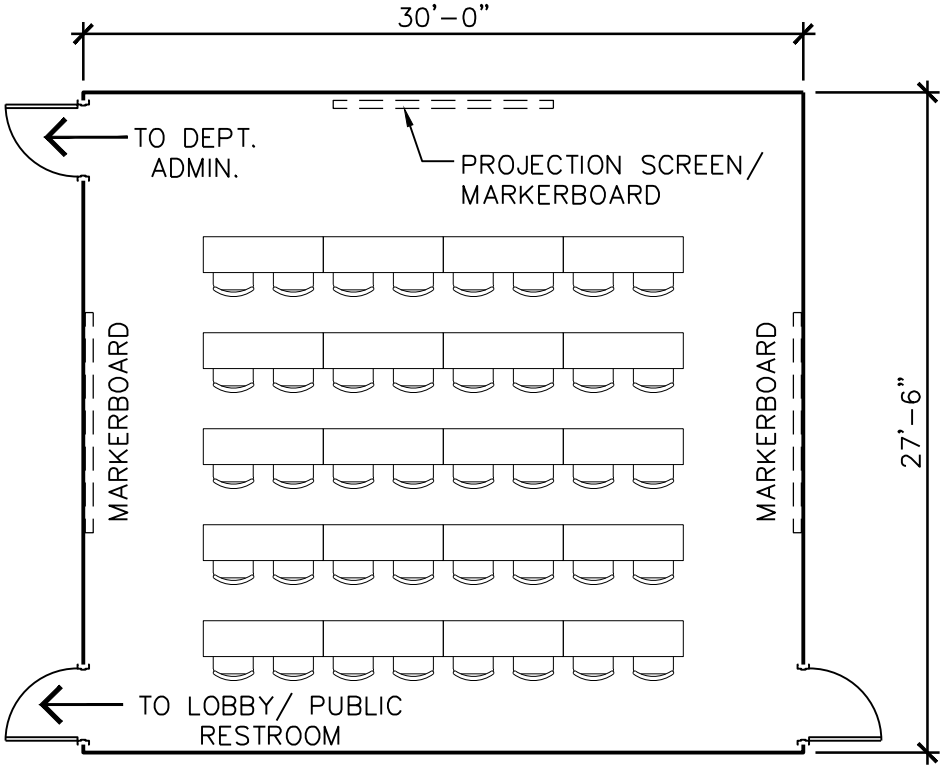
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-60



825 SF (40 OCCUPANTS)

TRAINING ROOM

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

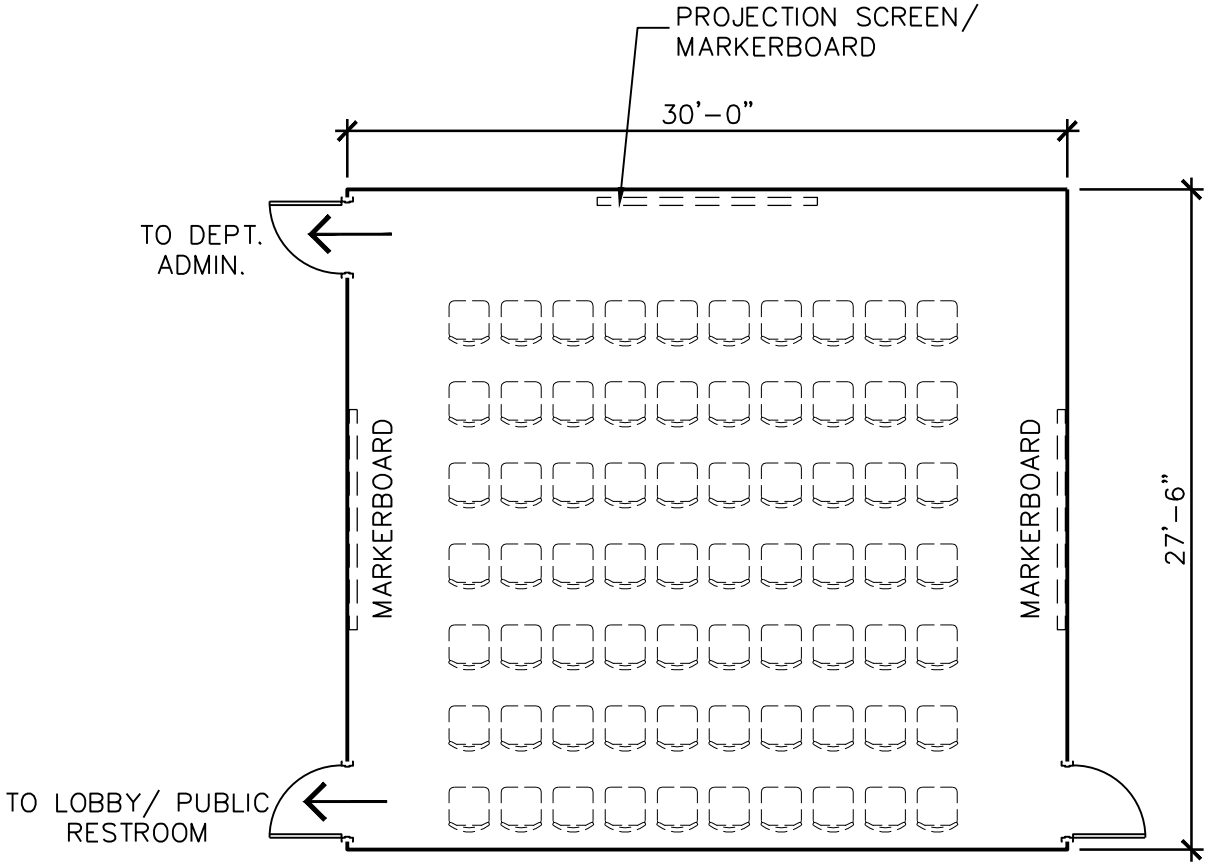
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-61



825 SF (70 OCCUPANTS)

TRAINING ROOM

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

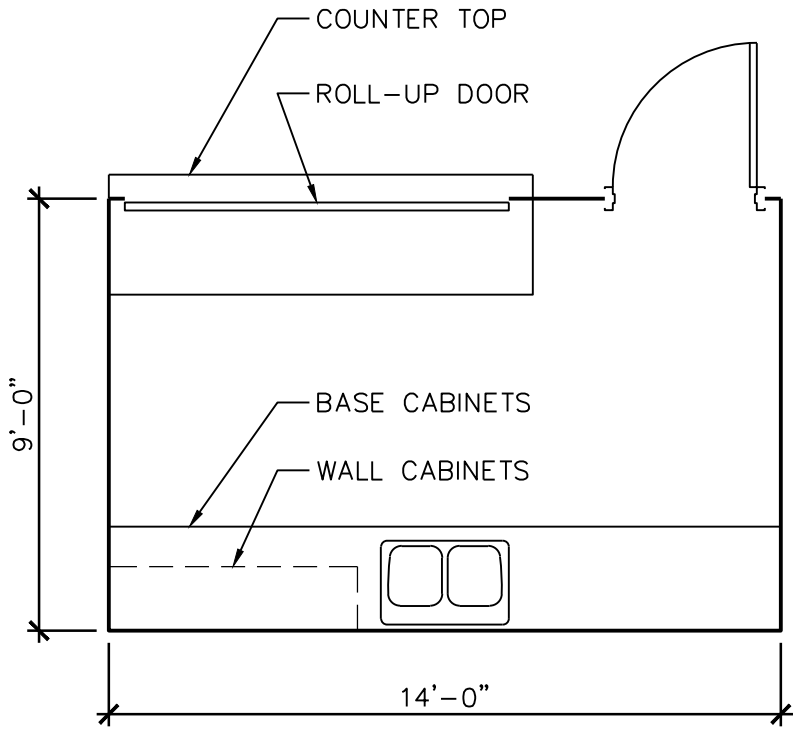
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-62



126 SF

HOSPITALITY

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

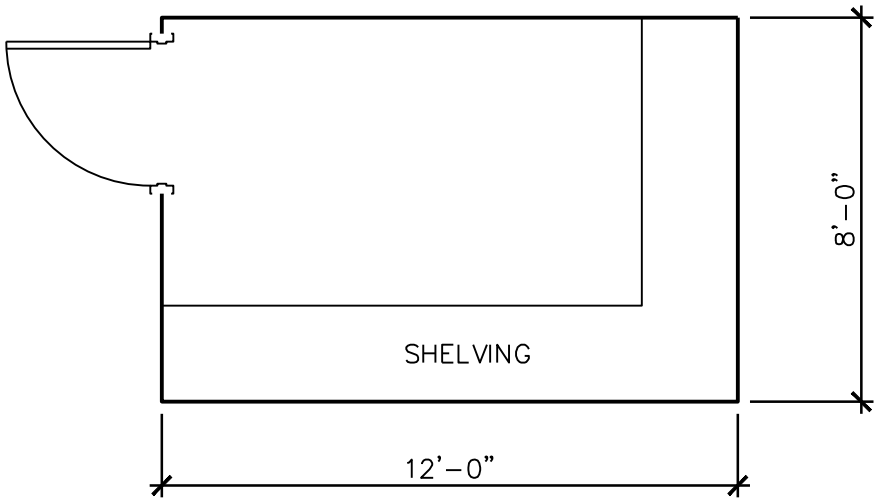
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-63



100 SF

TRAINING PROP STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

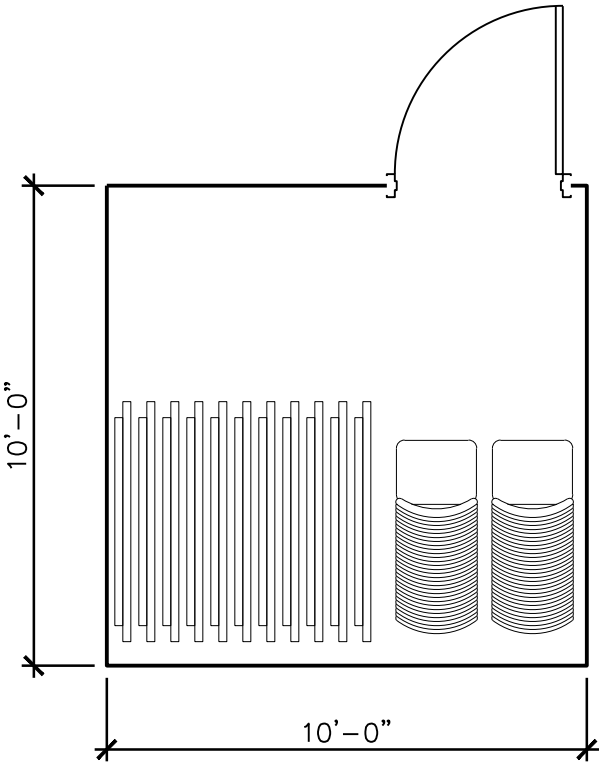
KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013



- TABLE / CHAIR STORAGE
- AV EQUIPMENT STORAGE

100 SF

TRAINING ROOM STORAGE

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

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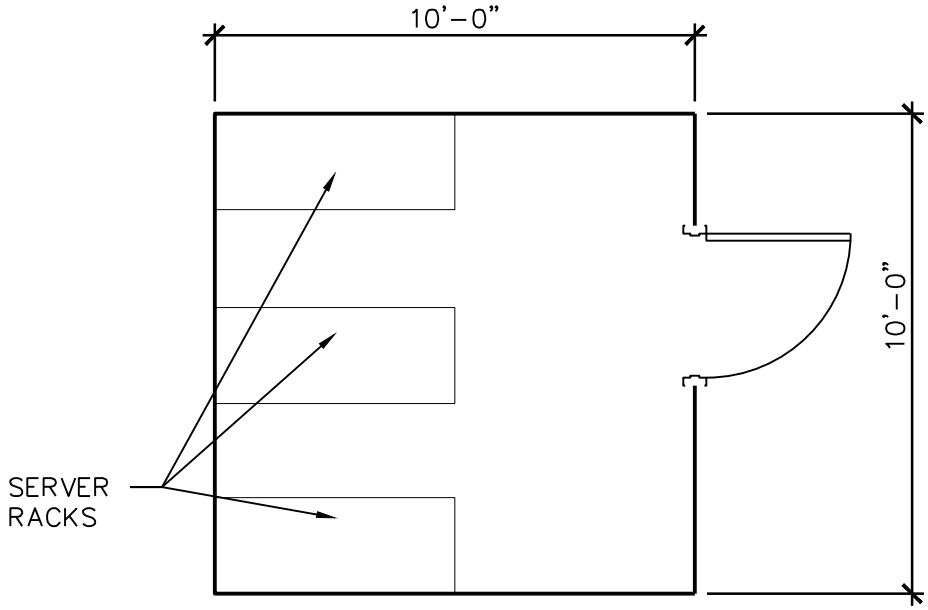
DATE

NOVEMBER 13, 2013

E-65



100 SF

SERVER ROOM

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER
ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE
STATION

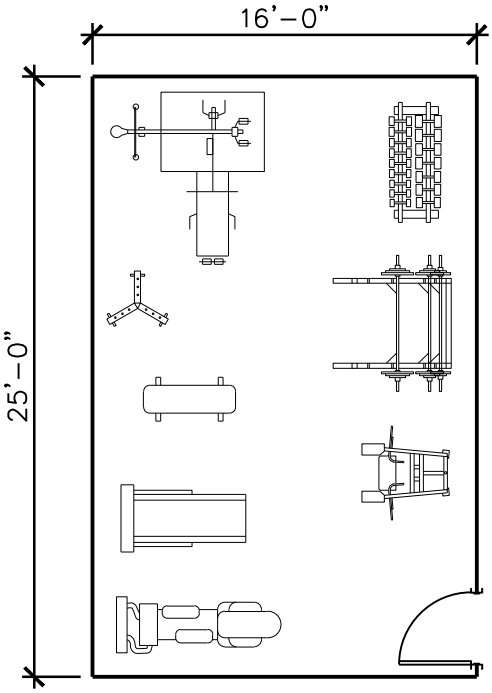
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-66



400 SF

FITNESS ROOM

SCALE: 1/8"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

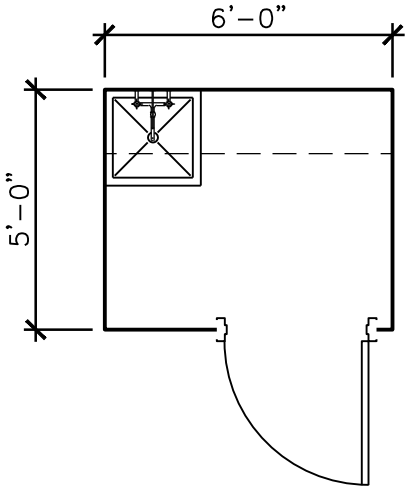
COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-67



30 SF

JANITOR CLOSET

SCALE: 1/4"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

E-68

Estimated Project Costs		9/19/2014			
Killington Public Safety					
Killington, VT					
The following is a summary of Estimated Project Costs developed for the Killington Public Safety Study.					
The options developed are conceptual in nature and therefore the estimated project					
costs are intended to provide a preliminary order of magnitude view at the potential project costs.					
Project costs consist of estimated site and building construction costs, design and construction					
contingencies, phasing, soft costs to cover the values of the design team, owner's project manager,					
investigative services, etc and fixtures, furniture and technology costs. The project costs					
presented are in current 2014 dollars and may need to be adjusted for inflation depending on					
future construction timeframes.					
Options:	**Sq Footage**	**Est. Costs**	**Land Req.**	**Land Cost**	**Total Cost**
Option 1 - Capital Improvements Only	**8236**	**$ 2,995,000**	**.4 Acre**	**$40,400**	**$ 3,035,400**
Plus Station 2 Replacement	**1200**	**$ 400,000**	**.1 Acre**	**$10,000**	**$ 410,000**
					$ 3,445,400
Option 1a - Capital Improvements + New Apparatus Bay	**9381**	**$ 3,464,000**	**.4 Acre**	**$40,400**	**$ 3,504,400**
Option 2 - Renovation Addition with Police	**17725**	**$ 7,709,000**	**.5 Acre**	**$50,501**	**$ 7,759,501**
Option 2a - Renovation Addition without Police	**15486**	**$ 6,791,000**	**.5 Acre**	**$50,501**	**$ 6,841,501**
Option 3 - New Station with Police (3 stories)	**16609**	**$ 7,116,000**	**.5 Acre**	**$50,501**	**$ 7,166,501**
Option 3a - New Station without Police (3 stories)	**14980**	**$ 6,373,000**	**.5 Acre**	**$50,501**	**$ 6,423,501**
Option 3b - New Station without Police (2 stories)	**15563**	**$ 6,603,000**	**.5 Acre**	**$50,501**	**$ 6,653,501**
Option 4-Phase 1 - New Fire Station at Alternate Site	**16705**	**$ 6,209,000**	**6.93 Acres**	**$700,000**	**$ 6,909,000**
(partial police station as temp training room)					
Option 4- Phase 2* - New Fire Station and Police Station at Alternate Site	**5568**	**$ 1,946,000**			**$ 1,946,000**
(complete police station, training rm and public lobby)					
Option 4- Phase 3* - New Fire Station, Police and Town Hall at Alternate Site	**6492**	**$ 2,667,000**			**$ 2,667,000**
(complete town offices)					
*** 2-5% annual construction escalation costs should be budgeted for each year subsequent phases**					
are delayed					
Option 4- No Phasing - New Fire, Police and Town Offices - Alt. Site	**26797**	**$ 10,826,000**	**6.93 Acres**	**$700,000**	**$ 11,526,000**

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 1 - Capital Improvements Only							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				8236			
Construction Costs:							
	Site Development				$ 324,934	20% of building cost	
	Construction Phasing				$ 120,000	12 months	
	Building:						
	Capital Improvements			6738	$ 1,160,130	See Cap. Improve. list	
	Renovations				$ -	$200/sf	
	New Building Construction:			1498	$ 344,540	$230/sf	
	Building Construction Subtotal:				$ 1,624,670		
	Site and Building Construct. Costs Subtotal:				$ 1,949,604		
	Design and Estimating Contingency				$ 194,960	10% of construction	
Total Estimated Construction Cost:					**$ 2,144,564**	$ 260	per sf
Project Contingency:		(Construction 10% + Owner 5%)			**$ 321,685**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 428,913**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 2,144,564**		
	Project Contingency				**$ 321,685**		
	Soft Costs				**$ 428,913**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 2,995,000**	$ 364	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 1a - Capital Improvements + New Apparatus Bay							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				9381			
Construction Costs:							
	Site Development				$ 377,604	20% of building cost	
	Construction Phasing				$ 120,000	12 months	
	Building:						
	Capital Improvements			6738	$ 1,160,130	See Cap. Improve. list	
	Renovations				$ -	$200/sf	
	New Building Construction:			2643	$ 607,890	$230/sf	
	Building Construction Subtotal:				$ 1,888,020		
	Site and Building Construct. Costs Subtotal:				$ 2,265,624		
	Design and Estimating Contingency				$ 226,562	10% of construction	
Total Estimated Construction Cost:					**$ 2,492,186**	$ 266	per sf
Project Contingency:		(Construction 10% + Owner 5%)			**$ 373,828**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 498,437**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 2,492,186**		
	Project Contingency				**$ 373,828**		
	Soft Costs				**$ 498,437**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 3,464,000**	$ 369	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 2 - Renovation Addition with Police							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				17725			
Construction Costs:							
	Site Development				$ 842,728	20% of building cost	
	Construction Phasing				$ 160,000	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition			5000	$ 50,000	$10/sf	
	Renovations			2437	$ 487,400	$200/sf	
	New Building Construction:			15288	$ 3,516,240	$230/sf	
	Building Construction Subtotal:				$ 4,213,640		
	Site and Building Construct. Costs Subtotal:				$ 5,056,368		
	Design and Estimating Contingency				$ 505,637	10% of construction	
Total Estimated Construction Cost:					**$ 5,562,005**	$ 314	per sf
Project Contingency:		(Construction 10% + Owner 5%)			**$ 834,301**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,112,401**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 200,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 5,562,005**		
	Project Contingency				**$ 834,301**		
	Soft Costs				**$ 1,112,401**		
	FF&E/Technology Costs				**$ 200,000**		
	Estimated Total Project Costs				**$ 7,709,000**	$ 435	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 2a - Renovation Addition without Police							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				15486			
Construction Costs:							
	Site Development				$ 739,734	20% of building cost	
	Construction Phasing				$ 160,000	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition			5000	$ 50,000	$10/sf	
	Renovations			2437	$ 487,400	$200/sf	
	New Building Construction:			13049	$ 3,001,270	$230/sf	
	Building Construction Subtotal:				$ 3,698,670		
	Site and Building Construct. Costs Subtotal:				$ 4,438,404		
	Design and Estimating Contingency				$ 443,840	10% of construction	
Total Estimated Construction Cost:					**$ 4,882,244**	$ 315	per sf
Project Contingency:		(Construction 10% + Owner 5%)			**$ 732,337**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 976,449**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 200,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,882,244**		
	Project Contingency				**$ 732,337**		
	Soft Costs				**$ 976,449**		
	FF&E/Technology Costs				**$ 200,000**		
	Estimated Total Project Costs				**$ 6,791,000**	$ 439	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 3 - New Station with Police (3 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				16609			
Construction Costs:							
	Site Development				$ 806,014	20% of building cost	
	Construction Phasing				$ 160,000	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition			5000	$ 50,000	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			16609	$ 3,820,070	$230/sf	
	Building Construction Subtotal:				$ 4,030,070		
	Site and Building Construct. Costs Subtotal:				$ 4,836,084		
	Design and Estimating Contingency				$ 483,608	10% of construction	
Total Estimated Construction Cost:					**$ 5,319,692**	$ 320	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 531,969**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,063,938**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 200,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 5,319,692**		
	Project Contingency				**$ 531,969**		
	Soft Costs				**$ 1,063,938**		
	FF&E/Technology Costs				**$ 200,000**		
	Estimated Total Project Costs				**$ 7,116,000**	$ 428	per sf

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Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 3a - New Station without Police (3 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				14980			
Construction Costs:							
	Site Development				$ 731,080	20% of building cost	
	Construction Phasing				$ 160,000	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition			5000	$ 50,000	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			14980	$ 3,445,400	$230/sf	
	Building Construction Subtotal:				$ 3,655,400		
	Site and Building Construct. Costs Subtotal:				$ 4,386,480		
	Design and Estimating Contingency				$ 438,648	10% of construction	
Total Estimated Construction Cost:					**$ 4,825,128**	$ 322	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 482,513**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 965,026**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,825,128**		
	Project Contingency				**$ 482,513**		
	Soft Costs				**$ 965,026**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,373,000**	$ 425	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 3b - New Station without Police (2 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				15563			
Construction Costs:							
	Site Development				$ 757,898	20% of building cost	
	Construction Phasing				$ 160,000	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition			5000	$ 50,000	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			15563	$ 3,579,490	$230/sf	
	Building Construction Subtotal:				$ 3,789,490		
	Site and Building Construct. Costs Subtotal:				$ 4,547,388		
	Design and Estimating Contingency				$ 454,739	10% of construction	
Total Estimated Construction Cost:					**$ 5,002,127**	$ 321	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 500,213**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,000,425**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 5,002,127**		
	Project Contingency				**$ 500,213**		
	Soft Costs				**$ 1,000,425**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,603,000**	$ 424	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4 - New Fire at Alternate Site Phase 1							
	(w/ partial Police Station as temp Training Rm)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				14737	**new**		
Construction Costs:				**1968**	**partial buildout**		
	Site Development				$ 847,378	25% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			14737	$ 3,389,510	$230/sf	
	Partial PD Constr (training rm)			1968	$ 393,600	$200/sf	
	Building Construction Subtotal:				$ 3,389,510		
	Site and Building Construct. Costs Subtotal:				$ 4,236,888		
	Design and Estimating Contingency				$ 423,689	10% of construction	
Total Estimated Construction Cost:					**$ 4,660,576**	$ 279	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 466,058**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 932,115**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 150,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,660,576**		
	Project Contingency				**$ 466,058**		
	Soft Costs				**$ 932,115**		
	FF&E/Technology Costs				**$ 150,000**		
	Estimated Total Project Costs				**$ 6,209,000**	$ 372	per sf

Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4a - New Fire at Alternate Site (Phase 2)							
	(complete Police Station, Training Room and Public Lobby)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				3600	**new**		
Construction Costs:				**1968**	**finish PD buildout**		
	Site Development				$ 161,100	15% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			3600	$ 828,000	$230/sf	
	Finish Partial PD buildout			1968	$ 246,000	$125/sf	
	Building Construction Subtotal:				$ 1,074,000		
	Site and Building Construct. Costs Subtotal:				$ 1,235,100		
	Design and Estimating Contingency				$ 185,265	15% of construction	
Total Estimated Construction Cost:					**$ 1,420,365**	$ 255	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 142,037**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 284,073**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 1,420,365**		
	Project Contingency				**$ 142,037**		
	Soft Costs				**$ 284,073**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 1,946,000**	$ 349	per sf

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Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4b - New Fire, Police and Town Offices at Alternate Site (Phase 3)							
	(complete Town Offices)						
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				6492	**new**		
Construction Costs:							
	Site Development				$ 223,974	15% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			6492	$ 1,493,160	$230/sf	
	Finish Partial PD buildout			0	$ -	$125/sf	
	Building Construction Subtotal:				$ 1,493,160		
	Site and Building Construct. Costs Subtotal:				$ 1,717,134		
	Design and Estimating Contingency				$ 257,570	15% of construction	
Total Estimated Construction Cost:					**$ 1,974,704**	$ 304	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 197,470**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 394,941**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 1,974,704**		
	Project Contingency				**$ 197,470**		
	Soft Costs				**$ 394,941**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 2,667,000**	$ 411	per sf

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Estimated Project Costs						19-Sep-14	
Killington Public Safety							
Killington, VT							
Option 4c - New Fire, Police and Town Offices							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				26797			
Construction Costs:							
	Site Development				$ 1,232,662	20% of building cost	
	Construction Phasing				$ -	16 months	
	Building:						
	Capital Improvements				$ -		
	Demolition				$ -	$10/sf	
	Renovations			0	$ -	$200/sf	
	New Building Construction:			26797	$ 6,163,310	$230/sf	
	Building Construction Subtotal:				$ 6,163,310		
	Site and Building Construct. Costs Subtotal:				$ 7,395,972		
	Design and Estimating Contingency				$ 739,597	10% of construction	
Total Estimated Construction Cost:					**$ 8,135,569**	$ 304	per sf
Project Contingency:		(Construction 5% + Owner 5%)			**$ 813,557**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,627,114**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 250,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 8,135,569**		
	Project Contingency				**$ 813,557**		
	Soft Costs				**$ 1,627,114**		
	FF&E/Technology Costs				**$ 250,000**		
	Estimated Total Project Costs				**$ 10,826,000**	$ 404	per sf

Estimated Project Costs Comparison with DEW

Killington Public Safety

Killington, VT

The following is a summary of Estimated Project Costs developed for the Killington Public Safety Study. The options developed are conceptual in nature and therefore the estimated project costs are intended to provide a preliminary order of magnitude view at the potential project costs. Project costs consist of estimated site and building construction costs, design and construction contingencies, phasing, soft costs to cover the values of the design team, owner's project manager, investigative services, etc and fixtures, furniture and technology costs. The project costs presented are in current 2014 dollars and may need to be adjusted for inflation depending on future construction timeframes.

Options:	Sq Footage	Preliminary Cost Estimates		
9/23/2014				
		Semidurable from DEW	Durable from DEW	D&W Estimate
Option 1 - Capital Improvements Only + Land and Lower Station	**8236**	**$ 2,456,569**	NA	**$ 3,445,400**
Option 1a - Capital Improvements + New Apparatus Bay + Land	**9381**	**$ 2,473,623**	NA	**$ 3,504,400**
Option 2 - Renovation Addition with Police + Land	**17725**	**NA**		**$ 7,759,501**
Option 2a - Renovation Addition without Police + Land	**15486**	**NA**		**$ 6,841,501**
Option 3 - New Station with Police (3 stories) + Land	**16609**	**$ 3,978,615**	**$ 4,452,171**	**$ 7,166,501**
Option 3a - New Station without Police (3 stories) + Land	**14980**	**$ 3,608,982**	**$ 4,036,092**	**$ 6,423,501**
Option 3b - New Station without Police (2 stories) + land	**15563**	**NA**		**$ 6,653,501**
Option 4 - New Fire Station at Alternate Site Phase 1 + Land	**16705**	**$ 4,390,498**	**$ 4,866,791**	**$ 6,909,000**
(partial police station as temp training room)				
Option 4a* - New Fire Station at Alternate Site Phase 2	**5568**			**$ 1,946,000**
(complete police station, training rm and public lobby)				
Option 4b* - New Fire Station at Alternate Site Phase 3	**6492**			**$ 2,667,000**
(complete town offices)				

* 2-5% annual construction escalation should be budgeted for each year subsequent phases are delayed

Semidurabel and Durable Cost Estimates Rec'd from DEW

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OPTION 1

CAPITAL IMPROVEMENTS

SITE PLAN

- **Achieves general code compliance <u>without</u> satisfying Program needs of the Department**
- **Requires rebuilding Lower Station (Station No. 2)**

LEGEND

- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

OPTION 1

CAPITAL IMPROVEMENTS

1ST FLOOR

2ND FLOOR

OPTION 1

CAPITAL IMPROVEMENTS @ LOWER STATION ON RIVER ROAD

- DEMOLISH STATION 2 AND REPLACE WITH LARGER APP. BAY

SITE PLAN

OPTION 1 SUMMARY

SITE PLAN

- PROS
  - Requires the minimum amount of change to meet ADA, building & life safety code requirements
- CONS
  - Inadequate number of apparatus bays on this site
  - Size/ configuration of app. bays inadequate
  - No Police Department
  - Does not meet program requirements
    - (Storage, Administration, SCBA, TOG, Etc.)
  - Requires replacement of Station 2 and possibly additional land at Station 2
  - Requires purchase of new Traffic Signals

OPTION 1a

CAPITAL IMPROVEMENTS
PLUS ADDITIONAL APP. BAY

SITE PLAN

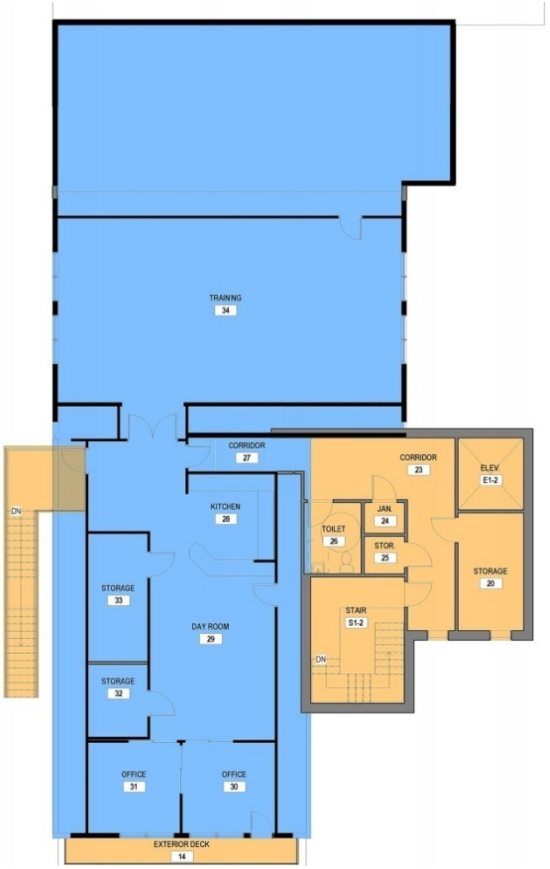
LEGEND

- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

OPTION 1a

CAPITAL IMPROVEMENTS
PLUS ADDITIONAL APP. BAY

1ST FLOOR



2ND FLOOR

1a-MASSING STUDIES

West (street) Elevation

South Elevation

G-7

OPTION 1

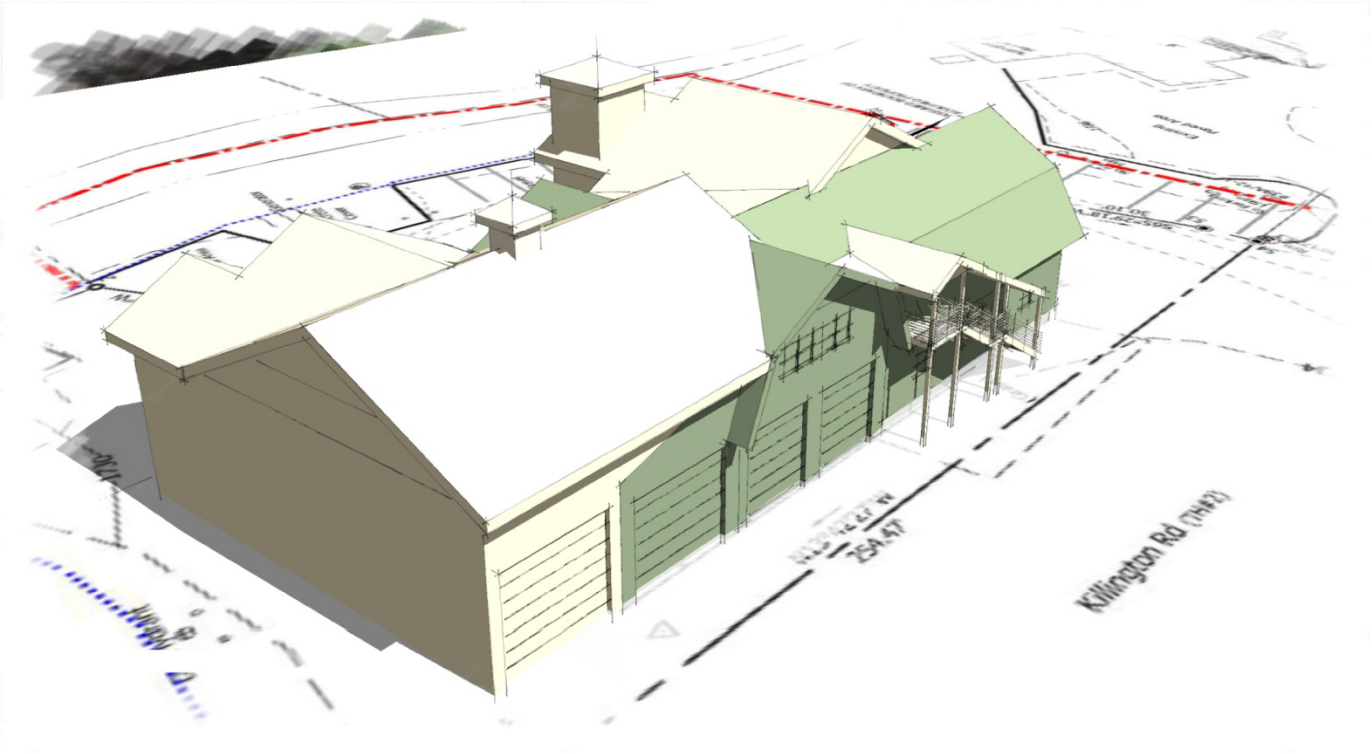
1a-MASSING STUDIES

East Elevation

G-8

OPTION 1

1a-MASSING STUDIES



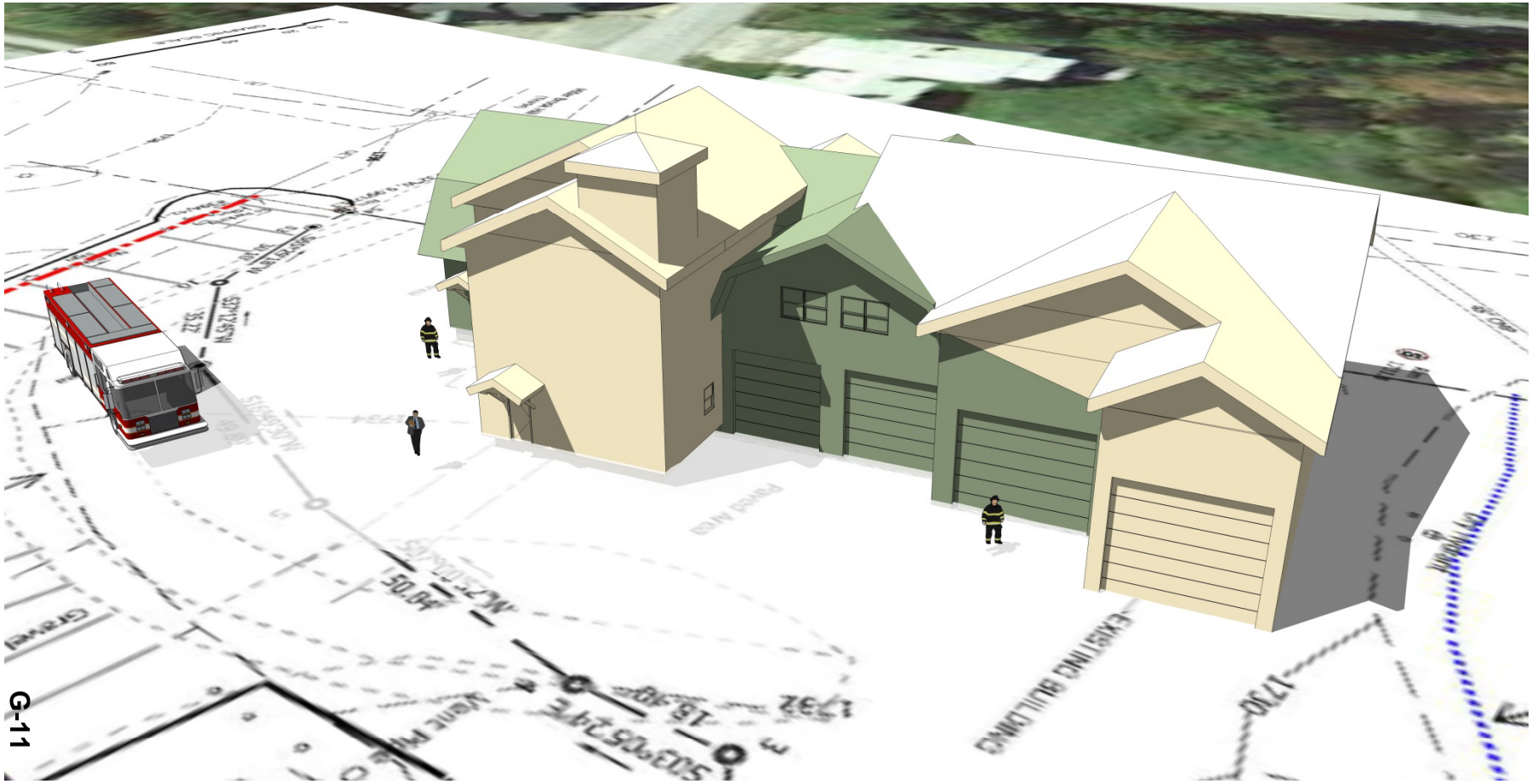
OPTION 1

1a-MASSING STUDIES

G-10

OPTION 1

1a-MASSING STUDIES



G-11

OPTION 1

OPTION 1a SUMMARY

CAPITAL IMPROVEMENTS
PLUS ADDITIONAL APP. BAY

SITE PLAN

PROS

- Achieves code compliance
- Provides one additional (20') apparatus bay

CONS

- Does not provide spaces conforming with Program
- Inadequate number of app. bays on this site
- Size /configurationof app. bays inadequate
- No Police Department
- Does not meet program requirements (Storage, Administration, SCBA, TOG, Etc.)
- Requires replacement of Station 2 and possibly additional land at Station 2
- Requires purchase of new Traffic Signals

OPTION 2

RENOVATION AND ADDITION WITH POLICE

SITE PLAN

- **Achieves general code compliance**
- **Provides spaces conforming with the Space Program**
- **Eliminates the need to renovate Lower Station (Station No. 2)**
- **Includes Police Department**

LEGEND

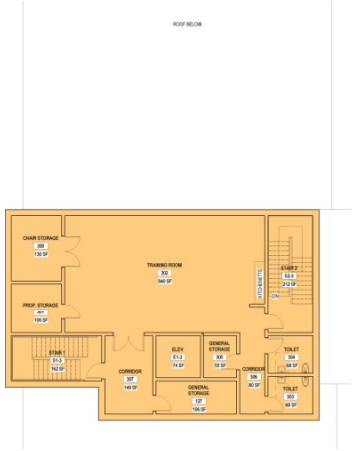
- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

OPTION 2

RENOVATION AND ADDITION WITH POLICE

1ST FLOOR

2ND FLOOR

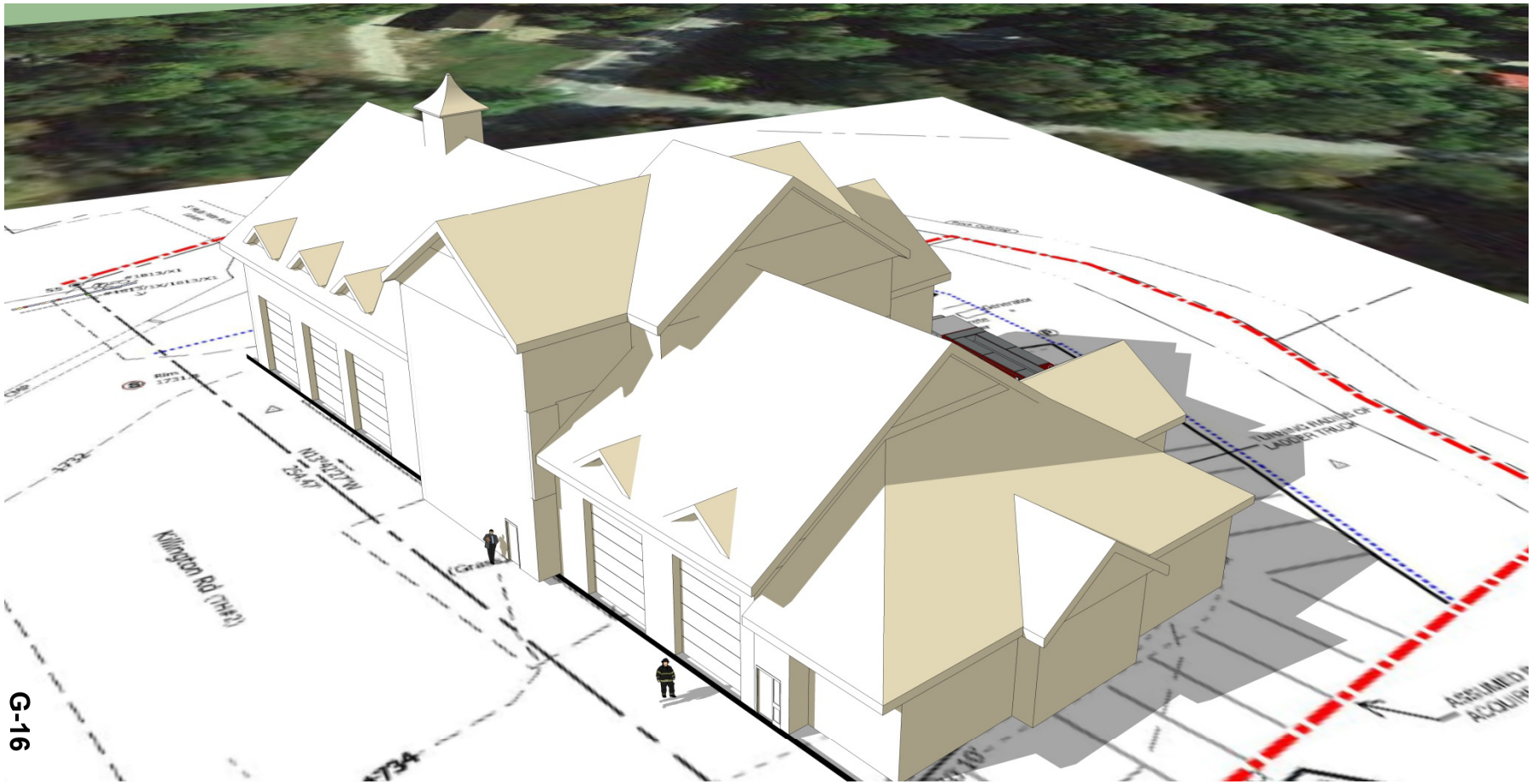


3RD FLOOR

2-MASSING STUDIES

OPTION 2

2-MASSING STUDIES



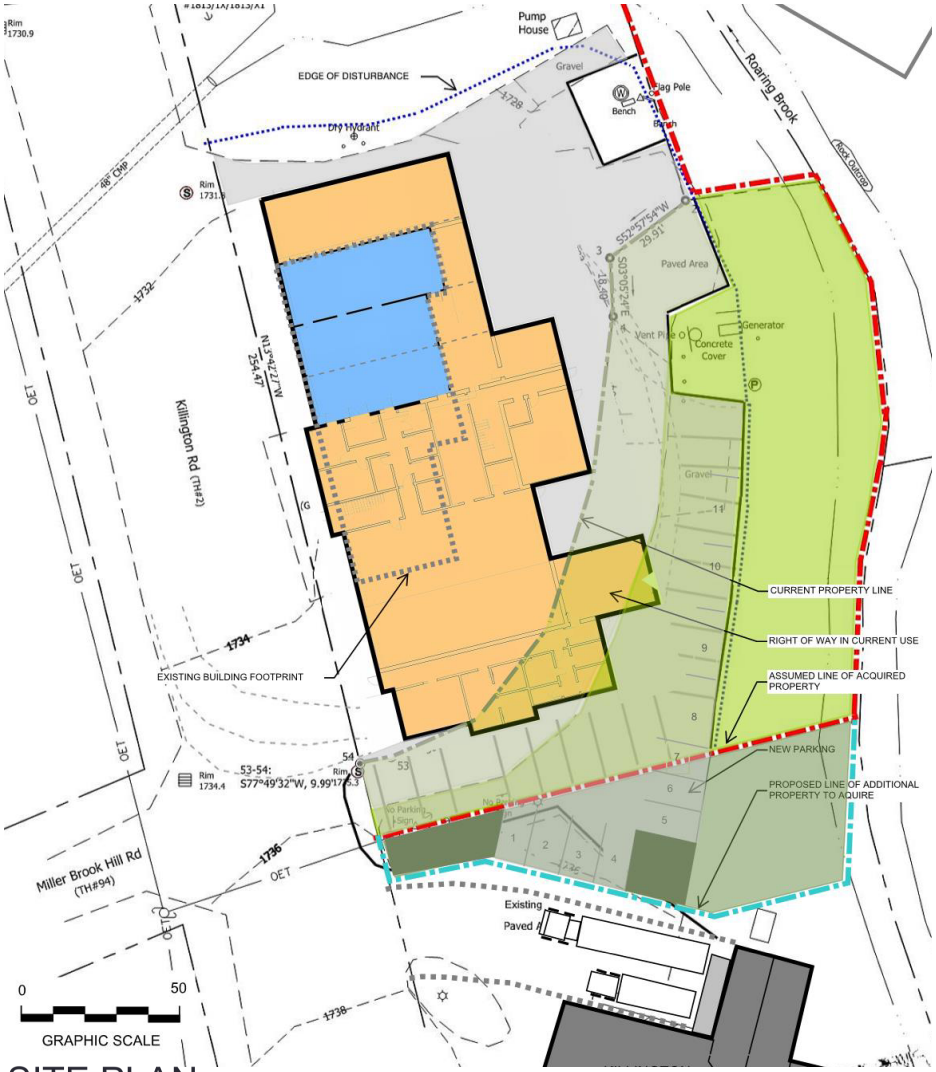
OPTION 2

2-MASSING STUDIES

G-17

OPTION 2

OPTION 2 SUMMARY



SITE PLAN

RENOVATION AND ADDITION WITH POLICE

- PROS
  - Police Department included
  - Meets requirements for <u>number</u> of app bays
  - Provides spaces conforming to the Program
  - Maintains water storage system
- CONS
  - Does not provide all app bays with <u>size and configuration</u> complying with Program.
  - Loss of parking to south of building.
  - Requires purchase of additional land from neighboring parcel to south beyond land required for Option 1
  - Three-story structure
  - Difficult turning radius for vehicles into bays
  - Requires back-in approach off Killington Road
  - Requires purchase of new traffic signals

OPTION 2a

RENOVATION AND ADDITION
WITHOUT POLICE

SITE PLAN

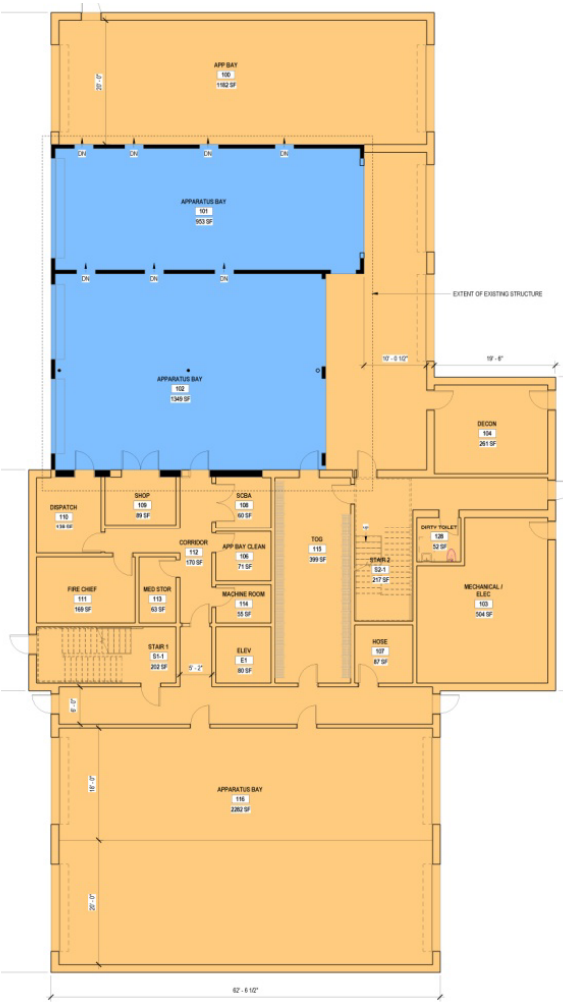
- **Achieves general code compliance**
- **Provides spaces conforming with the Space Program**
- **Eliminates the need to renovate Lower Station (Station No. 2)**
- **Does not include Police Department**

LEGEND

- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

OPTION 2a

RENOVATION AND ADDITION
WITHOUT POLICE



1ST FLOOR

2ND FLOOR

3RD FLOOR

2a-MASSING STUDIES

G-21

OPTION 2

2a -MASSING STUDIES

OPTION 2

OPTION 2a SUMMARY

SITE PLAN

RENOVATION AND ADDITION WITHOUT POLICE

- PROS
  - Meets App. Bay length requirements (but not width requirements at all bays)
  - Meets fire program requirements
  - Maintains water storage system
- CONS
  - No Police Station
  - Requires extensive demolition and renovation
  - Three-story structure
  - Requires purchase of additional land from neighboring parcel to south beyond land required for Option 1
  - Difficult turning radius for vehicles into bays
  - Requires back-in approach off Killington Road

OPTION 3

NEW CONSTRUCTION WITH POLICE

- **New code-compliant building**
- **Includes spaces conforming with the Program**
- **Eliminates the need to renovate Lower Station (Station No. 2)**

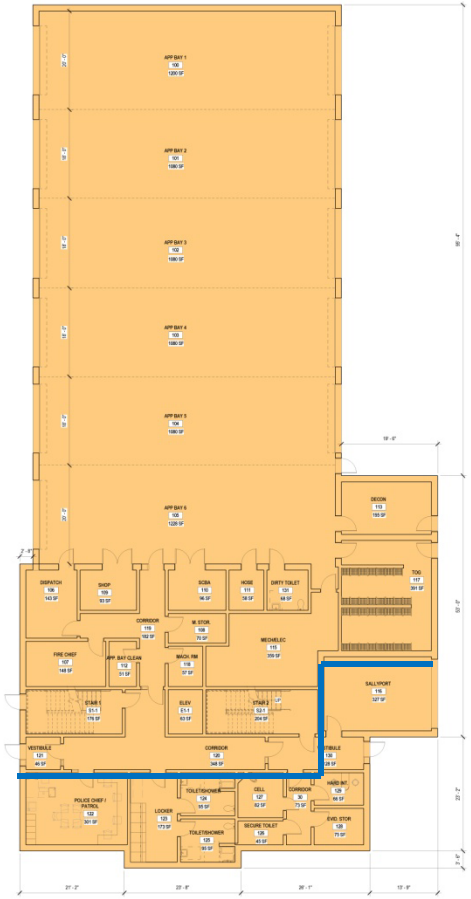
LEGEND

- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

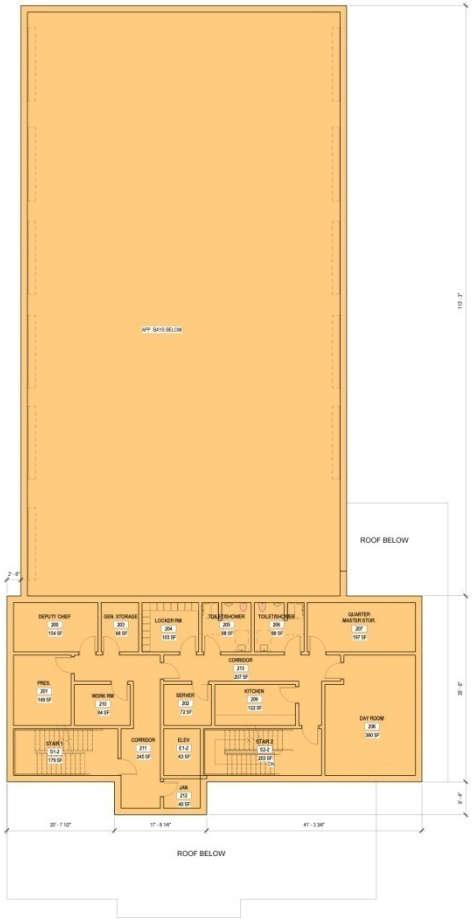
SITE PLAN

OPTION 3

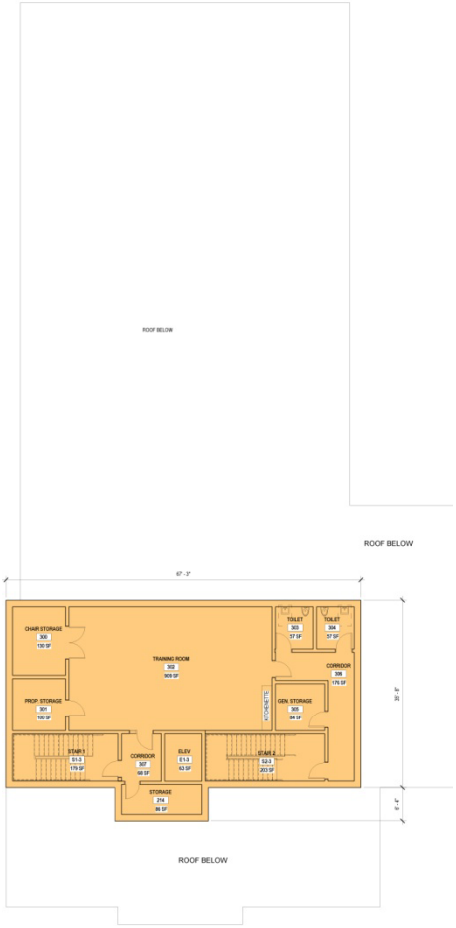
NEW CONSTRUCTION WITH POLICE



1ST FLOOR



2ND FLOOR



3RD FLOOR

3-MASSING STUDIES

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

West (street) Elevation

OPTION 3

3-MASSING STUDIES

OPTION 3

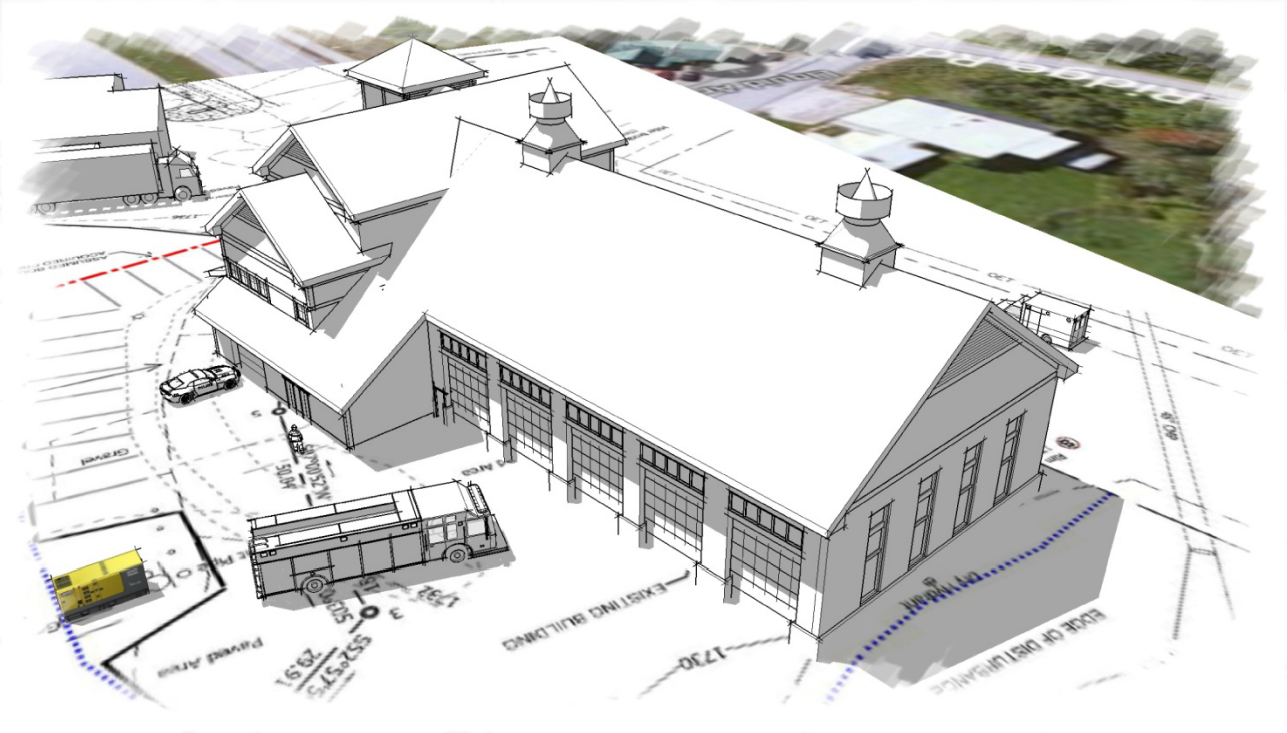
3-MASSING STUDIES

OPTION 3

3-MASSING STUDIES

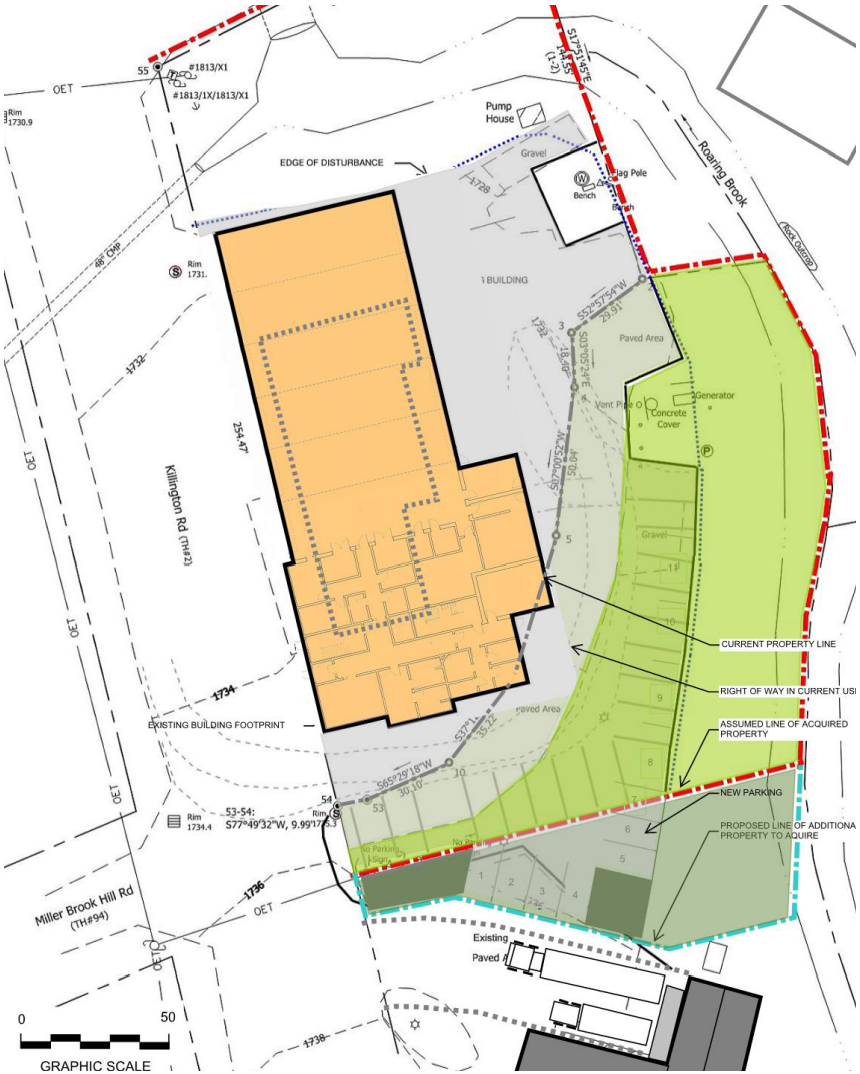
OPTION 3

3-MASSING STUDIES



OPTION 3

OPTION 3 SUMMARY



SITE PLAN

NEW CONSTRUCTION WITH POLICE

- PROS
  - Includes Police Department
  - Meets program requirements
  - Includes programmed number and sizes of app bays
- CONS
  - Requires purchase of additional land from neighbor to south beyond land required for Option 2
  - Three story building
  - Reduced parking to south
  - Requires new water storage system for sprinkler system and truck fill
  - Difficult turning radius for vehicles into bays
  - Requires back-in approach off Killington Road
  - Requires purchase of new Traffic Signals

OPTION 3a

NEW CONSTRUCTION
WITHOUT POLICE

- **New code-compliant building**
- **Includes spaces conforming with the Program**
- **Eliminates the need to renovate Lower Station (Station No. 2)**
- **Does not include Police Department**

LEGEND

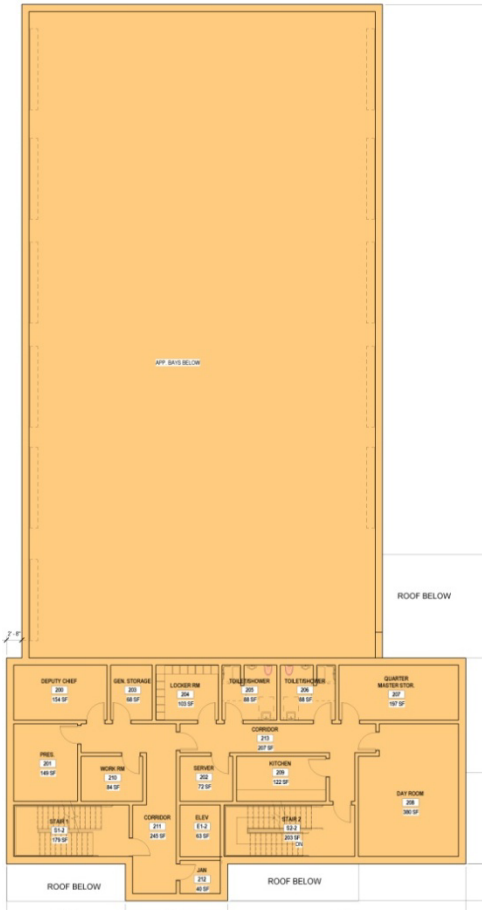
- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

SITE PLAN

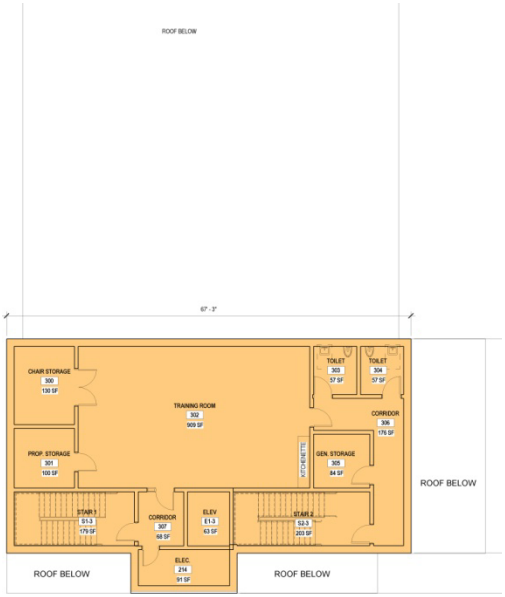
OPTION 3a

NEW CONSTRUCTION
WITHOUT POLICE

1ST FLOOR



2ND FLOOR



3RD FLOOR

3a-MASSING STUDIES

DORE & WHITTIER ARCHITECTS, INC.

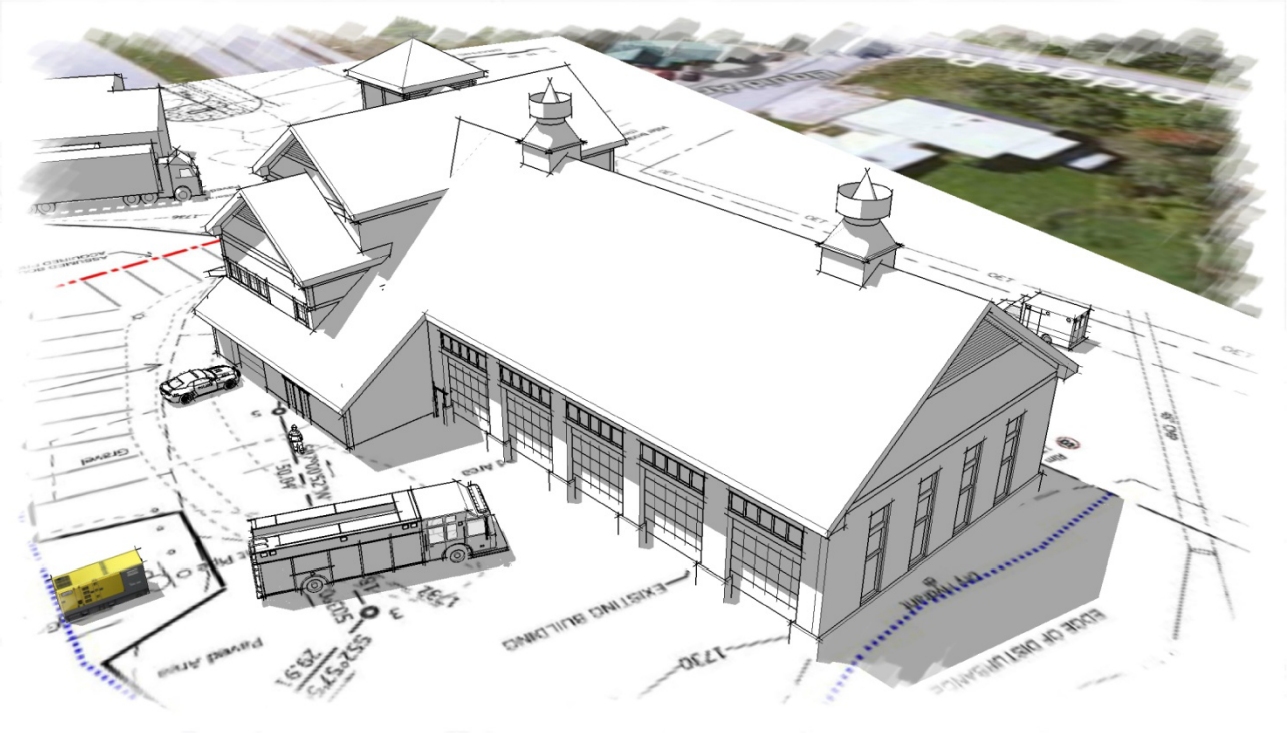
architecture + design

OPTION 3

3a-MASSING STUDIES

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design



OPTION 3

OPTION 3a SUMMARY

SITE PLAN

NEW CONSTRUCTION WITHOUT POLICE

- PROS
  - Ability to add Police Department in future without affecting layout of fire program
  - Meets program requirements for Fire Department
- CONS
  - No Police Department
  - Requires purchase of additional land from neighbor to south beyond land required for Option 2
  - Reduced parking to south
  - Three-story building
  - Requires back-in approach off Killington Road
  - Difficult turning radius for vehicles into bays
  - Requires water storage system for sprinkler system and to fill trucks
  - Requires purchase of new Traffic Signals

OPTION 3b

NEW CONSTRUCTION, WITHOUT POLICE, TWO STORY

- **New Two-Story code-compliant building (with configuration different than option 3)**
- **Includes spaces conforming with the Program**
- **Eliminates the need to renovate Lower Station (Station No. 2)**
- **No Police Department**
- **Better Fire Department layout but not as easy to add Police in future**

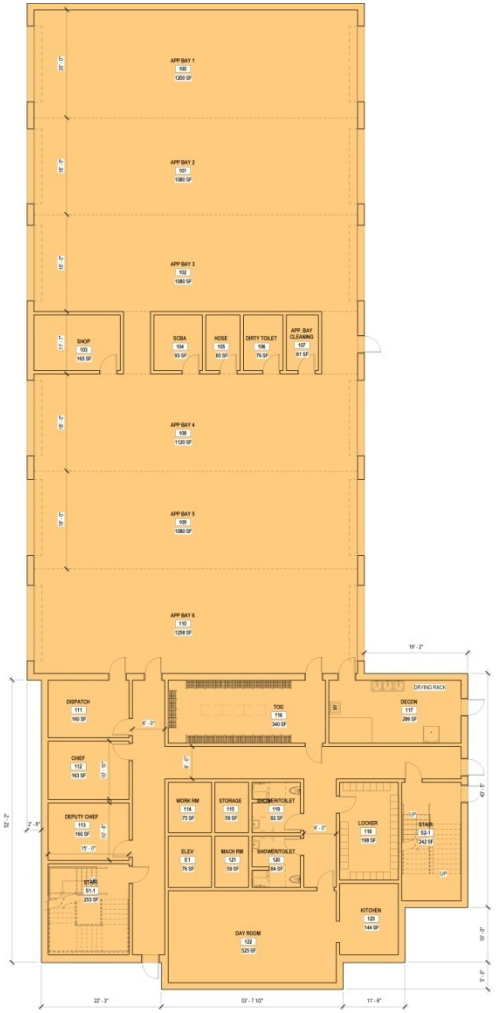
LEGEND

- RENOVATED
- NEW
- LAND TO BE ACQUIRED
- AREA TO BE ACQUIRED (CURRENTLY PAVED/GRAVEL)
- RIGHT-OF-WAY FOR FIRE VEHICLES
- AREA TO BE AQUIRED FOR OPTIONS 2 & 3
- PAVED/ GRAVEL AREA

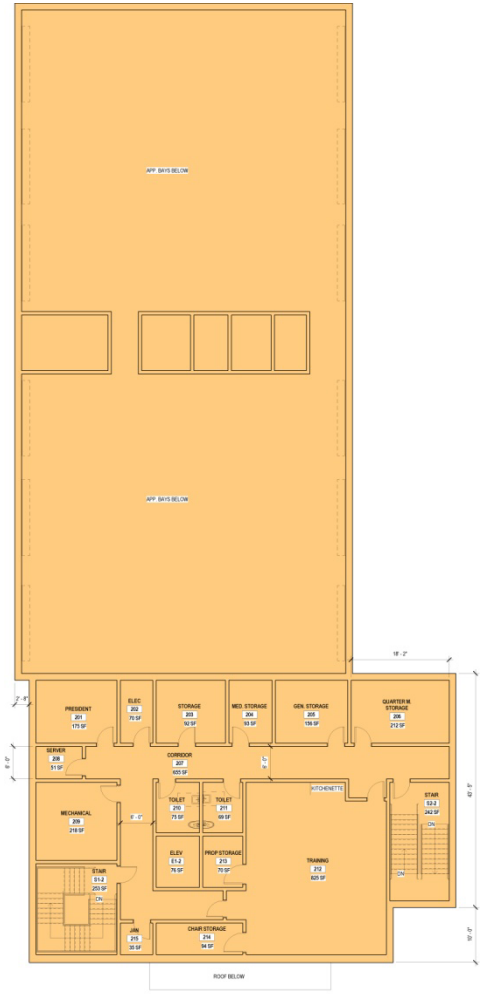
SITE PLAN

OPTION 3b

NEW CONSTRUCTION WITHOUT POLICE, TWO STORY



1ST FLOOR



2ND FLOOR

3b-MASSING STUDIES

West (street) Elevation

OPTION 3b

3b-MASSING STUDIES

South Elevation

G-40

OPTION 3b

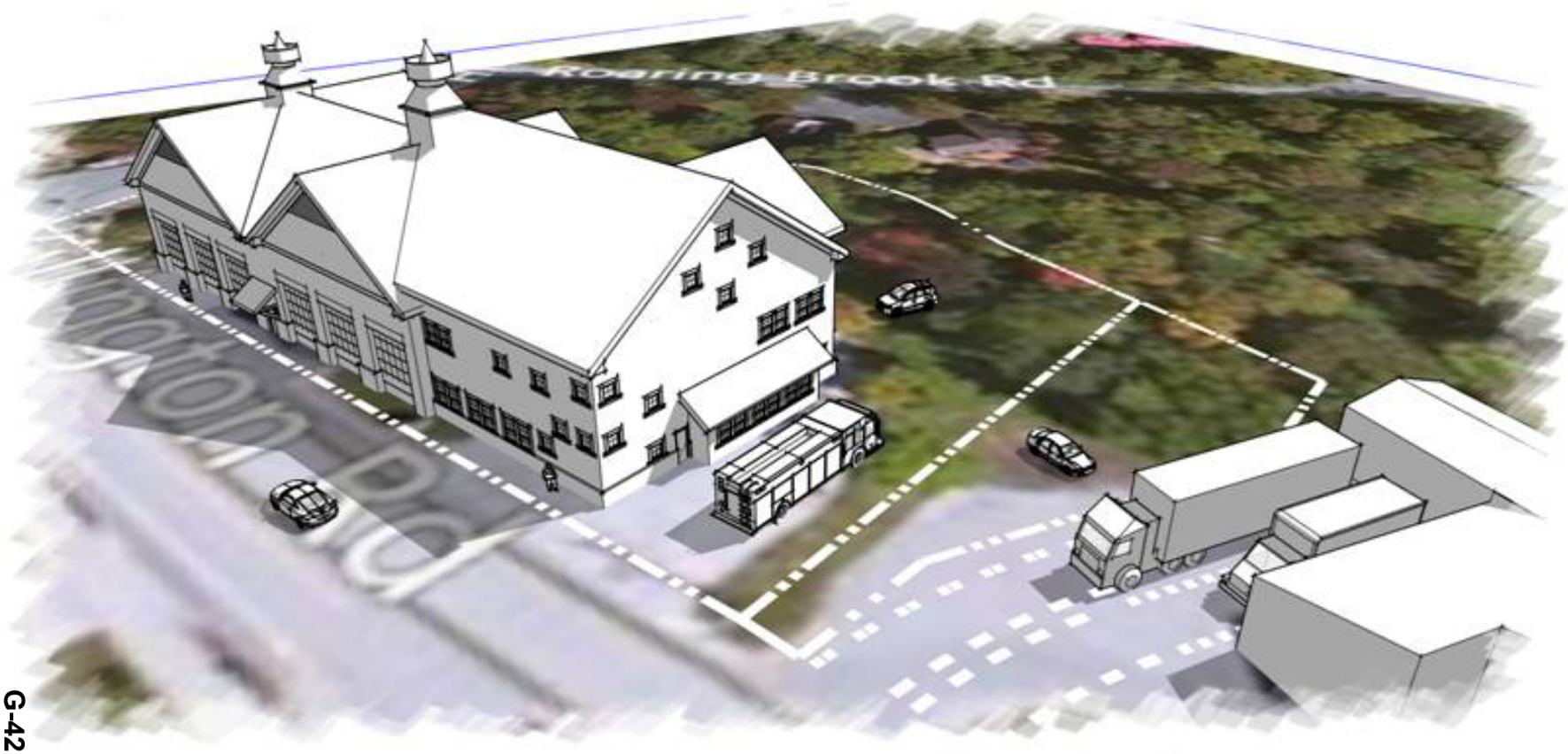
3b-MASSING STUDIES

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

OPTION 3b

3b-MASSING STUDIES



OPTION 3b

3b-MASSING STUDIES

OPTION 3b

3b-MASSING STUDIES

OPTION 3b

OPTION 3b SUMMARY

SITE PLAN

NEW CONSTRUCTION
WITHOUT POLICE, 2 STORY

- PROS
  - Two Stories: Simpler construction, less stair travel, shorter elevator, zoning height considerations.
  - Better configuration of spaces than Option 3
- CONS
  - No Police Department
  - Not easy to add Police in future
  - Requires purchase of additional land from neighbor to south beyond land required for Option 2
  - Loss of parking to south
  - Difficult turning radius for vehicles into bays
  - Requires back-in approach off Killington Road
  - Requires water storage system for sprinkler system and to fill trucks
  - Requires purchase of new Traffic Signals

Project Directory
Killington Fire Station

260 MERRIMAC ST. BUILD #7 •NEWBURYPORT, MA 01950
Phone (978) 499-2999 • Fax (978) 499-2944

212 Battery Street • BURLINGTON, VT 05401
Phone (802) 863-1428 • Fax (802) 863-6955

Dore and Whittier Project No.: 13-667 **Revised 9/25/2014**

WORK TYPE	NAME	PHONE	FAX
Architect **Dore & Whittier Architects, Inc.** 260 Merrimac St. Build #7 Newburyport, MA 01950 212 Battery Street Burlington, VT 05401	 Donald Walter, AIA, Principal dwalter@doreandwhittier.com Alan Brown, Project Manager abrown@doreandwhittier.com	 978-499-2999 617-312-4059 (c) 802-863-1428	 978-499-2944 802-863-6955
Town of Killington	Seth Webb Sethwebb@town.killington.vt.us Chet Hagenbarth Chet@killingtontown.com	802-422-3241	
Killington Fire Dept.	Gary Roth Repack1@ad.com Steven Finer pres@kfrvt.org	802-342-0041 802-353-2173	
Killington Police Department	Robert Montgomery whit@killingtontown.com wmontgo941@aol.com	802-422-5091	
Civil & Structural **Engineering Ventures** 208 Flynn Avenue, Suite 2A Burlington, VT 05401	Kevin Worden kevinw@engineeringventures.com Bob Neeld robertn@engineeringventures.com	(802) 863-6225 (802) 343-5445 (c) 802-863-6225	
Electrical **Pearson Associates** P.O. Box 610 (mail) 174 Thomas Lane (shipping Stowe, VT 05461	Alan Gould alan.g@pearsonandassociates.com	(802) 253-9607	
HVAC **CRW** 292 Al Shir Road Colchester, VT 05446	Chris Wheeler cwhee89834@aol.com	(802) 865-6282 (802) 363-6292 (c)	

Project Directory

Killington Fire Station

260 MERRIMAC ST. BUILD #7 •NEWBURYPORT, MA 01950
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212 Battery Street • BURLINGTON, VT 05401
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Dore and Whittier Project No.: 13-667 **Revised 9/25/2014**

WORK TYPE	NAME	PHONE	FAX
Cost Estimating PM&C 59 South St. Hingham, MA 02043	Peter Bradley peterbradley@pmc-ma.com	(781) 740-8007	

FIRE STATION QUESTIONNAIRE

Name of Department KILLINGTON FIRE AND RESCUE

Proposed Name of Station KILLINGTON STATION 1

The following questionnaire is being provided as a tool to familiarize you with questions, issues, and data that will be discussed in the beginning stages of your project. To be responsible with our client's time, we have developed this form to allow you to prepare and discuss the following materials prior to our meeting. We have found that our meetings are more productive and efficient as a result of this approach.

If more than one person will be providing input into the completion of this form, please compile all the data into one questionnaire to avoid providing conflicting information.

When you have completed this, please fax it to our office in care of the contact person you are working with or the Government Studio at 513-721-8181.

Please copy Alan Brown at Dore & Whittier Inc at abrown@doreandwhittier.com

Please contact us if you have any questions filling out this form.

PROJECT MANAGEMENT

Who will manage the project for the Department?

Daily contact with the design team and contractor

Name STEVE FINER/GARY ROTH Title/role PRES/CHIEF

Other members of department building committee and their roles involved in the project:

Name SETH WEB Title/role TOWN MANAGER

Name DAVID GOUCHBERG Title/role VICE PRES

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

PROJECT BUDGET

Total Project Cost = Building Hard Cost + Soft Costs

- The term **"Total Project Cost"** refers to the sum total of all expenses required to design, build, furnish, and move into a completed facility. This typically is divided into two categories, **"Building Hard Costs"** and **"Soft Costs".**
- **"Building Hard Cost"** describes only the cost of the Prime contracts for construction at the time of the time of bid opening. This cost does not include any of the "Soft Costs".

- **"Soft Costs"** include all other costs associated with designing, building and moving into a completed facility. This cost does not include any of the "Building Hard Cost".

  Soft Costs include but aren't limited to: (Check the soft costs that will be included in the Total Project Cost.)

	Hard Cost	Soft Cost	Not Included In Project Cost
Land acquisition?	☑	☐	☐
Off-site utility improvements?	☐	☑	☐
Specialty equipment (Emergency generator, UPS, etc.)	☐	☑	☐
Furnishings, workstations, consoles?	☐	☑	☐
Architectural and Engineering fees?	☑	☐	☐
Permits – Building, Zoning, Utilities including Tap Fees?	☑	☐	☐
Surveys – Boundary and Topographic?	☑	☐	☐
Environmental Surveys – Phase 1 and Phase 2 Environmental	☑	☐	☐
Phone system?	☐	☑	☐
Radio/communication system?	☐	☑	☐
Landscaping?	☐	☑	☐
Signage?	☐	☑	☐
Kitchen / Break room Equipment?	☐	☑	☐
Security/AV Systems?	☐	☑	☐
Temporary facilities?	☑	☐	☐
Moving costs?	☑	☐	☐
Utility Costs?	☑	☐	☐
Insurance Costs?	☑	☐	☐
Construction Contingency?	☑	☐	☐
Inspection and testing fees?	☑	☐	☐
Cost of financing?	☑	☐	☐

What is the expected Total Project Cost? :

☐ Project Cost (Fixed or give a range): _____

☑ Project Cost has not been determined. It will be determined as part of the design process.

What is the anticipated source(s) of funding? BOND

Has funding been secured? NO

PROJECT SITE

Is the land acquisition for this project complete? AT CURRENT DESIGN STAGE

How many acres are available? (Approximately) APROX 1

Describe the previous use for the project site. FIRE SERVICES

What other uses are planned for this property other than a Fire Station?

- ☑ Combined City/Township Hall Public Safety with police
- ☐ Community Park / Recreational
- ☐ Public Works / Service / Salt Dome
- ☐ Other: (Describe) _____

What Utilities are available to the Project Site?

☑	Water	☑	Telephone
☑	Sewer	☑	Cable
☐	Storm Water	☐	Fiber Optics
☑	Electric	☑	Gas

If possible, provide a list of Utility company contact personnel and contact information.

Who, besides assigned personnel, will require access to site?

Public (community room) CLASS ROOM

Maintenance personnel TRUCK AND EQUIPMENT MAINTENANCE

Other companies UTILITY, CLEANING

Apparatus Maintenance

Where will apparatus refueling occur? OFFSIT

Where will apparatus cleaning be done? ONSITE

Who will do routine maintenance of the apparatus?

Fire Department YES Contract entity YES Other _____

Where will routine apparatus maintenance occur? BOTH ON AND

Parking

(CR can assist with these requirements as part of the programming/needs analysis phase and zoning due diligence.)

Estimated number of spaces required for staff parking. 20

Estimated number of spaces required for visitor parking including possible training or conference activities. 15

DEPARTMENT OPERATIONAL ISSUES

Station Type

Describe your current operations:

Typical service calls and type FIRE, MEDICAL,SEARCH AND RESCUE

Service area: KILLINGTON AND MUTUAL AID AREA

Types of structure fires anticipated in service area: (low-rise, high-rise, industrial, residential, etc.) ALL OF THE ABOVE INCLUDING GAS AND HAZMAT

Does the department provide any inspectional services? YES

Describe EMS or Paramedic services provided (if applicable)
FAST SQUAD

What are your procedures when returning from a call? TRUCK AND GEAR MAINTANCE

How do you decontaminate? HOSE AND SHOWER

How do you restock and store materials? RACKS TO DRY HOSE LOCKED STORAGE FOR REPAIRS AND

Other issues LACK OF SPACE, POOR WATER QUALITY ONSITE, WATER STORAGE ON SITE FOR TRUCK REFILLING

Describe your Hazardous Materials services provided (if applicable): OPERATIONS LEVEL

How do you decontaminate? GROSS WITH SHOWER NON INHOUSE IF KNOWN EXPOSURE

How much foam do you store? 200 GAL

Other issues LOW LIGHT, COLD, DUSTY, LOW SPACE, TRIP HAZARDS, AIR AND WATER QUALITY

Staffing

Is your department volunteer YES paid professional _____ or combination? _____

What are your current staffing levels? 27

What are your anticipated future staffing levels? SAME

Administrative staff? 10

Shift description- number of firefighters per shift:

Station	Current Shift Size	Future Shift Size
Station # 1	VOL RESPONCE	4 PAID
Station # 2	1 TRUCK	3 TRUCK
Station #		
Station #		
Station #		

How many shifts do you have? 24 HR

Other staff that will have potential use of this station (police, health department, clinic, etc.)
POLICE

Apparatus Bay:

What is the largest length dimension of apparatus that will be needed to serve the community?

Currently in use: CURRENT TOWER TRUCK

Future anticipated: SAME

What are the two most frequently used apparatus? ENG 1, RES 2, RES 1 (I KNOW THATS 3)

List other apparatus, trailers and command vehicles. Include length dimensions and frequency of use/first out rank.

TANKER 1, ENG 2, TOWER 1, BRUSH 1 ALL LISTED IN ORDER OF USE NEED TO ENLARGE BAYS FOR NEWER TRUCKS WITH ALL WHEEL DRIVE AND LARGER WATER CAPACITY WOULD LIKE MORE ROOM FOR TRAILER STORAGE INSIDE AND SAFETY WORK AREA .

How do you anticipate stacking or staging of apparatus? (attach diagram)

Where will hose testing be done? OUTDOORS

What is the desired method of vehicle exhaust extraction? PLYMAVENT

What is the minimum desired size of doors? SAME AS TOWER BAY

(CR recommends 14'x14')

What are your maintenance and restock procedures?

Air fill CURRENTLY 3 BOTTLE CASCADE WITH 3 FILL CONTAINMENT (MAKO)

EMS Supplies STORED UP STAIRS NEEDS TO DOUBLE

Other issues GEAR STORAGE AND WORK BENCHES RADIO DISPATCH AREA

Response Station/Dispatch Center

How are calls received and communicated?

Tear sheets

Radio calls RADIO DISPATCH AND PAGERS NEED RADIO TOWER ONSITE

Pagers YES

Will radio stations be charged at this station? UHF AND VHF TOWERS How many? 4

What is desired location for Response Station? OFF BUILDING

Other requirements for Response Station. PHONE CABLE AND ANTENNA TOWER

Office Area

Who needs private offices?

Chief YES

Assistant Chief 2 SHARE

Training Officer YES

Others CAPT

PRES/VICE

CO CLERK

FIRST RESP

Who can be located in a small group office? List number of individuals in each office and whether they need individual workstations or can they share workstations with opposite shift employees.

Name	Individual Workstation	OR	Shared Workstation (with whom)
DEP CHIEF 2 SHARE	YES		
PRES/VICE	YES		
CAPT 2 SHARE	YES		
HEAD FIRST RESP	YES		

COMPANY CLERK	YES	
DISPATCH	YES	

What staff can be located in an open office area? Indicate whether they need individual workstations or can they share workstations with opposite shift employees?

Name	Individual Workstation	OR	Shared Workstation (with whom)

Indicate whether the following administrative functions require dedicated or shared space within other spaces.

	Dedicated	Located in which other office or space
File storage	YES	
Copy / Fax / Supplies	YES	
Work Area	YES	
General Storage	YES	
Library	YES	

Is a conference room required (separate from a training room)? YES

How many people shall conference room hold? 6

Will the public have access to the conference room? NO

Is access required after 5:00 pm? YES

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Training Room:

Is a training room required in this station? VERY MUCH SO

Will the Training Room double as an Emergency Operation Center? YES

What training will occur at this station?

Company training YES

Department training YES

Academy training YES

Other MEDICAL

Is there a full-time training officer assigned to this station? YES

Does the training officer require support staff?

Receptionist NO

Assistant YES

Other

Where will training reference materials be kept?

Training officer's office

Training room YES

Other

Will the training room be used for public meetings or seminars? YES

Is a separate public entrance required for the training room? NO

Maximum number of people to be seated theater style (chairs only) 40

Maximum number of people to be seated classroom style (tables & chairs) 20

What material needs to be stored adjacent to the training room?

Training material YES

Tables & chairs YES

Audio/visual equipment YES

Training props YES

What equipment is required for the training room?

Projection screen YES

Marker board YES

Cable TV YES

Food Service YES

Other COMPUTER

On-site Training, hands-on:

Do you have access to a training facility? YES

If yes, where and what type of facility? STATE FIRE ACADAMY

What are your on-site training goals? MEDICAL AND FIRE

Ladder X Confined Space X Hose line Adv. X Draughting X

Search & Rescue X Tower X Vehicle Extrication X

Other MEDICAL SCBA ROPES SPRINKLERS

Does the community have specific issues that require special training, such as hazardous material sites, rail yards, etc? VEHICLE EXTRICATION FLAMMABLE GAS

DORMITORY

Exercise Room/ Fitness Facility:

How many people are anticipated to workout at the same time? 4

What equipment will be provided?

(Provide list of equipment and dimensions to the Architect)

Will this area be shared by other city staff or departments? NO

If yes, will separate shower and locker area be required? YES

Separate entrance? NO

Day Room:

How many people will this room serve? 10

Open to kitchen or separate room? OPEN

Open to general circulation within private area of station or enclosed? OPEN

Will this room be used for other functions?

Study YES

Library YES

Training YES

Meetings YES

Will you furnish the dayroom with couches or recliners? NO

Kitchen:

How is food bought and stored?

Individual food storage YES

Bought and stored per shift _____

How many separate closets / pantries required? NOT SURE

Locked? _____

Separate refrigerators? _____

Will the station provide food for others during an emergency?

Emergency Operations Center? YES

Neighborhood? YES

Will the kitchen be used to prepare meals for events held in training room? YES

If so, what is the largest number to plan for?

Is access to a gas grill required? NO Range-top or exterior? YES

Dining:

How are meals eaten?

As a company YES

As individuals _____

Will dining area be open to kitchen? YES Day Room? YES

Will the dining area be used for other functions?

Training classes YES

Public Workshops YES

Meetings or study YES

Locker Room:

Where would you want personal gear lockers located?

_____ In the Dormitory/ dorm rooms

YES Locker rooms

_____ Other _____

What size lockers are required? (typical 24"w x 24"d) TYPICAL

Estimated quantity of lockers required

Men 20 Women 10

How many staff lockers required at this location? 4

Restrooms / Showers:

Determine type of facilities to be provided

Gender Equal: separate but equal facilities _____

Space intensive, but provides complete flexibility in staffing.

Gender Neutral: individual restroom/shower facilities YES

Most space efficient and provides complete flexibility in staffing.

Are towels laundered on-site by staff or off-site by laundry service? OFF SITE

Sleeping Quarters:

How many personnel are to be accommodated in sleeping quarters?

Current 0

Anticipated future 4

How many beds required?

"Cold-sheet" (one bed for every person assigned to station) YES

"Hot-sheet" (one bed shared by three – change sheets each shift) _____

What type of sleeping quarters is desired? _____

Separate Dorm Rooms

More privacy (gender issues, work/study, dressing, sound barrier)

Lockers can be located in dorm rooms, eliminating locker room

With or without doors _____

Bunk Room YES

May require less space, more flexible

Laundry:

Is a dedicated domestic laundry room required? YES

Will this room be separate from or combined with the turn out gear laundry related to the apparatus bay support? YES

How is uniform cleaning handled? OFF SITE

Will turnout gear be cleaned on-site or off? UNSURE PREFER OFF SITE

SUPPORT

Turnout Gear Storage:

Where do you keep turnout gear when on-duty? GEAR RACK

Where do you keep turnout gear when off-duty? GEAR RACK

Do you use gear bags? NO

How many sets of turnout gear per person? 2 AT MOST

How many sets of active turnout gear will be stored at the station? 30

Shop / Tool Room:

Will heavy vehicle maintenance be performed at station? AT TIMES

Tune-ups, oil changes? NO

Repairs? YES

Will a repair lift be required? YES

Will a repair pit be required? NO

What is the minimum clear height required? UNSURE

Will an air compressor be required? YES Locate inside or outside? INSIDE

Describe what tools and supplies are to be stored and approximate square footage required.

YOU TELL US

Does the department maintain and repair fire hydrants? NO

Janitor Closet:

Describe equipment used in Apparatus Bay.

Mops YES

Brooms YES

Squeegees YES

Buffers YES

Vacuums YES

Hose Storage / Tower:

Describe hose material and method of drying. NEED METHOD LAY OUT AT THIS TIME

Describe hose storage requirements. ROLLING RACKS

Cleanup Room/ Decontamination:

Indicate which of the following to be provided.

Deep sink with hands-free controls YES

Shower for personnel and equipment cleaning YES

Special containment sewer system YES

Where will locked drug storage be located? MEDICAL LOCK UP

OTHER ISSUES AND CONCERNS:

DORE & WHITTIER ARCHITECTS, INC.

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POLICE FACILITY QUESTIONNAIRE

Name of Department Killington Police Dept.

Proposed Name of Facility _____

The following questionnaire is being provided as a tool to familiarize you with questions, issues, and data that will be discussed in the beginning stages of your project. To be responsible with our client's time, we have developed this form to allow you to prepare and discuss the following materials prior to our meeting. We have found that our meetings are more productive and efficient as a result of this approach.

If more than one person will be providing input into the completion of this form, please compile all the data into one questionnaire to avoid providing conflicting information.

When you have completed this, please fax it to our office in care of the contact person you are working with or the Government Studio at 513-721-8181. Please copy Alan Brown at Dore & Whittier Inc at abrown@doreandwhittier.com

Please contact us if you have any questions filling out this form.

PROJECT MANAGEMENT

Who will manage the project for the Department?

Daily contact with the design team and contractor

Name Whit Montgomery Title/role Chief of Police

Other members of department building committee and their roles involved in the project:

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

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PROJECT BUDGET

Total Project Cost = Building Hard Cost + Soft Costs

- The term **"Total Project Cost"** refers to the sum total of all expenses required to design, build, furnish, and move into a completed facility. This typically is divided into two categories, **"Building Hard Costs"** and **"Soft Costs".**
- **"Building Hard Cost"** describes only the cost of the Prime contracts for construction at the time of the time of bid opening. This cost does not include any of the "Soft Costs".
- **"Soft Costs"** include all other costs associated with designing, building and moving into a completed facility. This cost does not include any of the "Building Hard Cost".

Check category for each item listed below:

	Hard Cost	Soft Cost	Not Included In Project Cost
Land acquisition?	☐	☐	☑
Off-site utility improvements?	☐	☐	☑
Specialty equipment (Emergency generator, UPS, etc.)	☐	☐	☑
Furnishings, workstations, consoles?	☐	☐	☑
Architectural and Engineering fees?	☑	☑	☐
Permits – Building, Zoning, Utilities including Tap Fees?	☐	☐	☑
Surveys – Boundary and Topographic?	☐	☐	☑
Environmental Surveys – Phase 1 and Phase 2 Environmental	☐	☐	☑
Phone system?	☑	☐	☐
Radio/communication system?	☐	☐	☐
Landscaping?	☐	☐	☑
Signage?	☑	☐	☐
Kitchen / Break room Equipment?	☐	☐	☑
Security/AV Systems?	☑	☐	☐
Temporary facilities?	☐	☐	☑
Moving costs?	☐	☐	☑
Utility Costs?	☑	☐	☐
Insurance Costs?	☐	☐	☑
Construction Contingency?	☐	☐	☑
Inspection and testing fees?	☐	☐	☑
Cost of financing?	☐	☐	☑

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What is the expected Total Project Cost? :

☐ Total Project Cost (fixed or give a range) _____

☑ Total Project Cost has not been determined. It will be determined as part of the design process.

What is the anticipated source(s) of funding? Bond

Has funding been secured? No

PROJECT SITE

Is the land acquisition for this project complete? ?

How many acres are available? (Approximately) ?

Describe the previous use for the project site. ?

What other uses are planned for this property other than a Police Station?

- ☐ Combined City/Township Hall Public Safety with Fire
- ☐ Community Park / Recreational
- ☐ Public Works / Service / Salt Dome
- ☑ Other: (Describe) Police / Fire

What Utilities are available to the Project Site?

☑	Water	☑	Telephone
☑	Sewer	☑	Cable
☐	Storm Water	☐	Fiber Optics
☑	Electric	☐	Gas

If possible, provide a list of Utility company contact personnel and contact information.

☐	Water	☐	Telephone
☐	Sewer	☐	Cable/Fiber Optics
☐	Electric	☐	Gas

Who, besides assigned personnel, will require access to site?

Public (community room) N/A

Maintenance personnel N/A

Other companies N/A

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DEPARTMENTAL OPERATIONAL ISSUES

Operations

Describe your current operations:

Typical service calls and type Assaults, Dui, drug, accidents, missing persons, civil process, etc.

Service area: Killington

Do you have a community policing program?

School resource officers, D.A.R.E.? Begining

Does the department provide community training? _____

Do you use bike patrols? NO

If yes, how many? _____

Do you use K-9 units? NO

If yes, how many? _____

Is community access for filing complaints and picking up records important? Yes

What is the frequency of community visitors to station? Unknown

Describe your investigations division:

Do detectives work cases separately or in teams? Separately

Other information that we should know?

_____

_____

_____

_____

Staffing

What are your current staffing levels?

Sworn officers 2 (growing)

Civilian _____

What are your future staffing levels?

Current calls per officer 200+ per year

Current population 800 summer / 20,000 weekends during winters.

Anticipated population – 20 years _____

Administrative staff?

Current 8

Future 1

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Other staff that will use the facility (fire, clinic, etc.)
N/A

SECURE AREA

Sallyport

Is a sallyport required? NO

Do you anticipate requiring more than one vehicle access at a time? N/A

If so, how many? N/A

Booking/Processing

Do you anticipate booking/processing more than one prisoner at a time? NO

If so, how many? N/A

Do you anticipate a separate processing area for juveniles? NO

Prisoner Holding

Do you plan to provide holding facilities? Yes

If yes, are holding cells to be designed as 8-hour, 5 day or other? 8 hour.

If no, how will you handle temporary detention? i.e. cuffing rail, etc. Cuffing rail if needed.

Do you anticipate more than 2 holding cells? NO

If so, how many? N/A

Do you anticipate more than one cell for detox? NO

Do you anticipate a separate juvenile holding area? NO

Evidence Processing/Storage

Is the evidence processing done in the same facility? Yes

Is a vehicle evidence processing garage required? NO

Do you require a separate area for contaminated items? NO

Do you anticipate requiring an evidence drying area? NO

Do you require a pass-thru evidence refrigerator? NO

What type of storage lockers/shelves is desired for evidence storage? Separate lockable room with shelves

What type of storage lockers/shelves/room is desired for property storage? Seperate / lockable room, Approx. 8 by 8

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How do you handle large found property items such as bikes?

Vermont State Police (at this time)

PUBLIC AREAS

Interview/Complaint

How many and what type of interview rooms do you require:

Soft interview rooms (with comfortable finishes and furniture)? 1

Hard interview rooms? NO

Complaint room? lobby (1)

Polygraph room? NO

Juvenile interview? NO

Do you anticipate interview rooms near:

Lobby NO

Holding Area Yes

Detectives NO

All of the above N/A

Records/Dispatch

Describe your anticipated dispatch and 9-1-1 services?

Through State Police

Does your service require a radio tower? NO On site? NO

If yes, what height is anticipated? NO

How are records stored, retrieved and provided to the public?

How many file cabinets do you require for records? 4

How many years are records kept readily available?

Do you need any other type of storage? evidence room

How many workstations are required at Dispatch? 3

What other equipment needs to be incorporated in the Dispatch Area?

LEEDS computer Yes

Security monitors Yes

Cable TV NO

Traffic link to Artemis NO

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Other _____

_____

ADMINISTRATION

Emergency Operations Center (EOC)

Will an EOC be provided? NO

If so, can the EOC be combined with another space (i.e. training room or conference room)?

_____

Training Room

Is a training room required in this station? NO

What training will occur at this station?

_____

_____

_____

Is there a full-time training officer assigned to this station? NO

Does the training officer require support staff?

Receptionist _____

Assistant _____

Other _____

Where will training reference materials be kept?

Training officer's office _____

Training room _____

Other ✓

Will the training room be used for public meetings or seminars? NO

Is a separate public entrance required for the training room? _____

Maximum number of people to be seated theater style (chairs only) _____

Maximum number of people to be seated classroom style (tables & chairs) 12

What material needs to be stored adjacent to the training room?

Training material _____

Tables & chairs _____

Audio/visual equipment _____

Training props _____

What equipment is required for the training room?

Projection screen _____

Marker board ✓

Cable TV ✓

Other _____

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OFFICE AREA

Who needs private offices?	✓	Quantity of offices
Chief	✓	1
Assistant Chief(s)		
Public Ed		
Captain(s)		
Detective(s)		
Others		

Who can be located in a small group office? List number of individuals in each office and whether they need individual workstations or can they share workstations with opposite shift employees?

Name	Individual Workstation	OR	Shared Workstation (with whom)
	2		
			1

What staff can be located in an open office area? Indicate whether they need individual workstations or can they share workstations with opposite shift employees?

Name	Individual Workstation	OR	Shared Workstation (with whom)
	2		
			1

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Indicate whether the following administrative functions require dedicated or shared space within other spaces.

	Dedicated	Located in which other office or space
File storage		work area
Copy / Fax / Supplies		work area
Work Area		
General Storage	✓	
Library	N/A	

Is a conference room required (separate from a training room)? NO

How many people shall conference room hold? 12

Will the public have access to the conference room? NO

Is access required after 5:00 pm? NO

PRIVATE AREA

Patrol Room

Do you need individual work areas in the Patrol Room? Yes

If yes, How many? 3

Do you need a separate Briefing Room (other than the training room) at the Patrol Area? NO

If yes, how many people should it accommodate? _____

How do officers transfer gear (briefcases, duffels, etc.)? _____

Size? _____

Report Room

How many people should the Report Room accommodate? _____

Do you require storage in the Report Room? What type? NO

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Armory and Supplies

Describe the type and quantity of armory storage anticipated

N/A

Will weapons maintenance be performed in the armory? No

Exercise Room

How many people are anticipated to workout at the same time? N/A

What equipment will be provided? N/A

(Provide list of equipment and dimensions to the Architect)

Locker Room

Is a locker room required? ~~N/A~~ Yes

What size lockers are required?

Are separate men's and women's locker areas required? NO

If yes, approximate quantity of each

Break Room

Is a lunchroom / break room to be provided? No

How many people need to be accommodated? N/A

OTHER ISSUES AND CONCERNS:

Needs to be on ground level, with no stairs. Needs to be a Seperate / Secure area from the fire Dept. Allowing only law Enforcement access.

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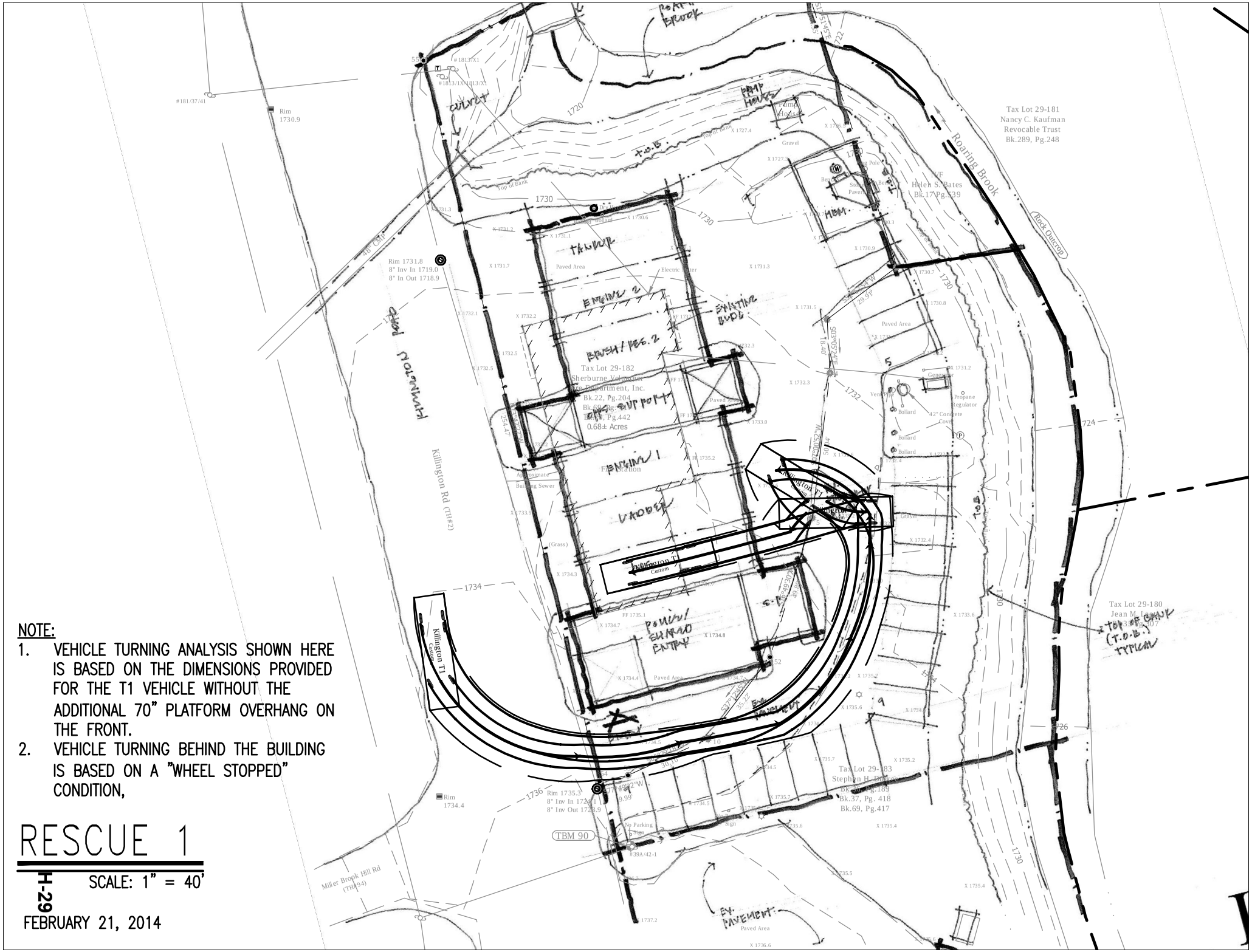


NOTE:

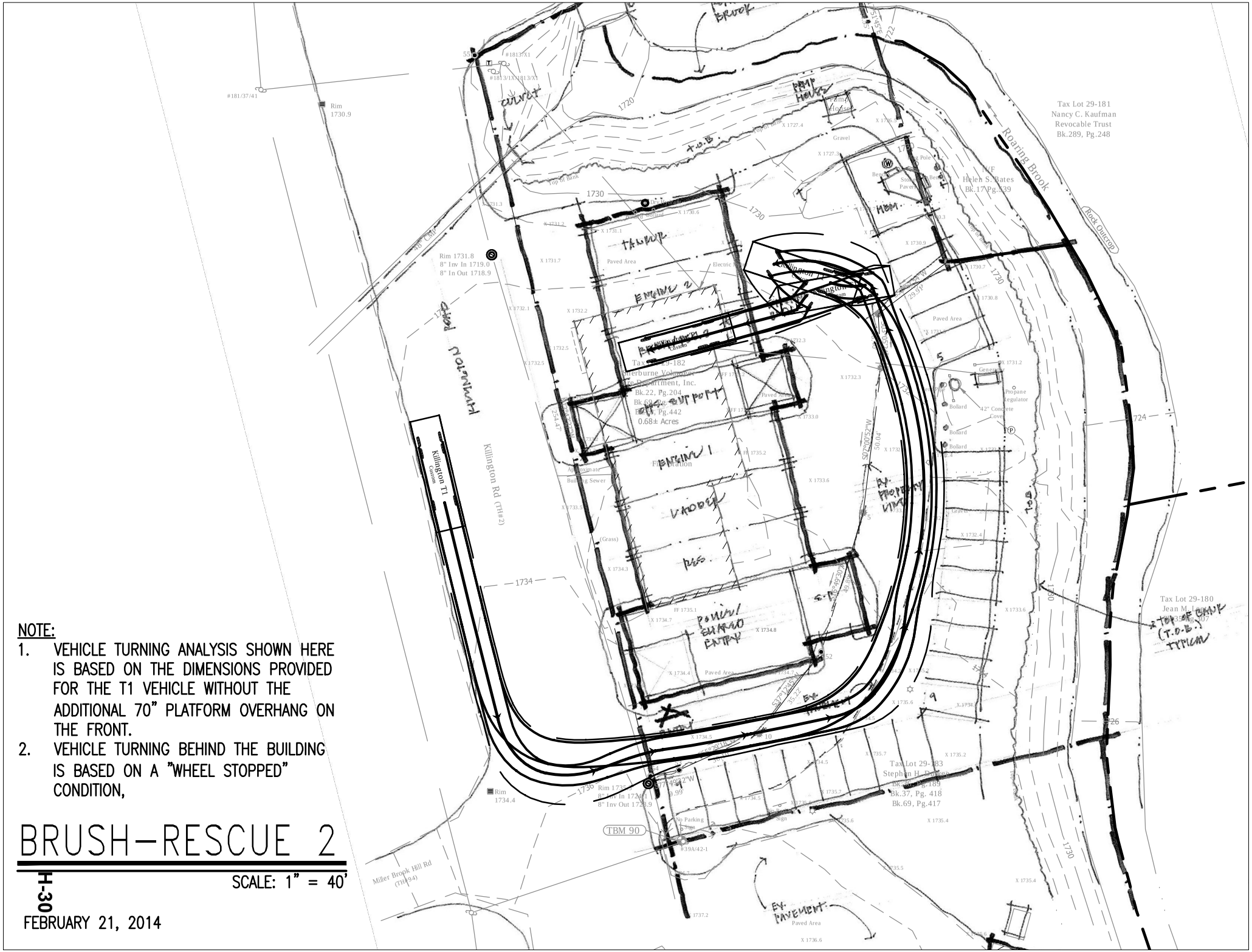
1. VEHICLE TURNING ANALYSIS SHOWN HERE IS BASED ON THE DIMENSIONS PROVIDED FOR THE T1 VEHICLE WITHOUT THE ADDITIONAL 70" PLATFORM OVERHANG ON THE FRONT.
2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

RESCUE 1

SCALE: 1" = 40'

H-29

FEBRUARY 21, 2014



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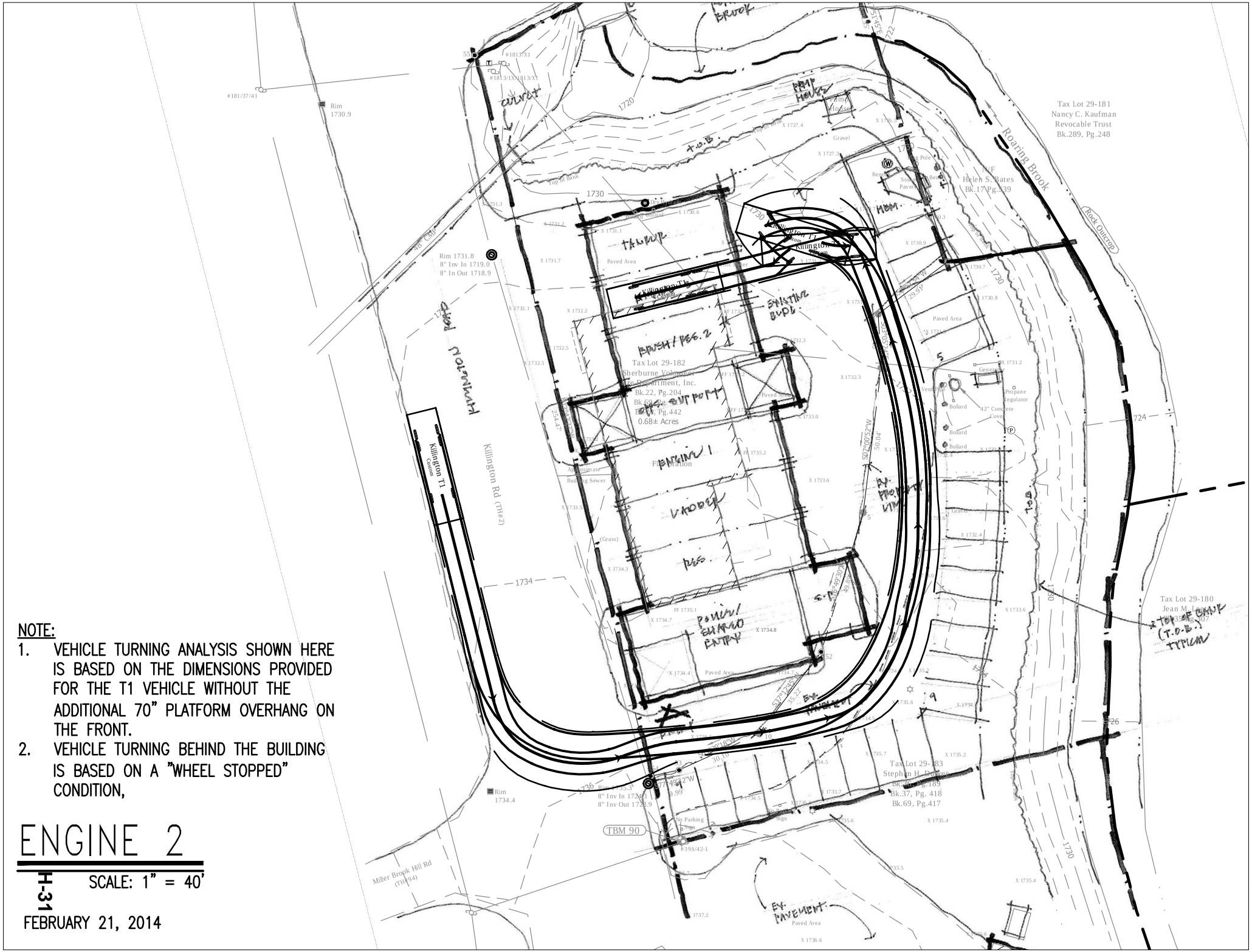
2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

BRUSH-RESCUE 2

SCALE: 1" = 40'

H-30

FEBRUARY 21, 2014



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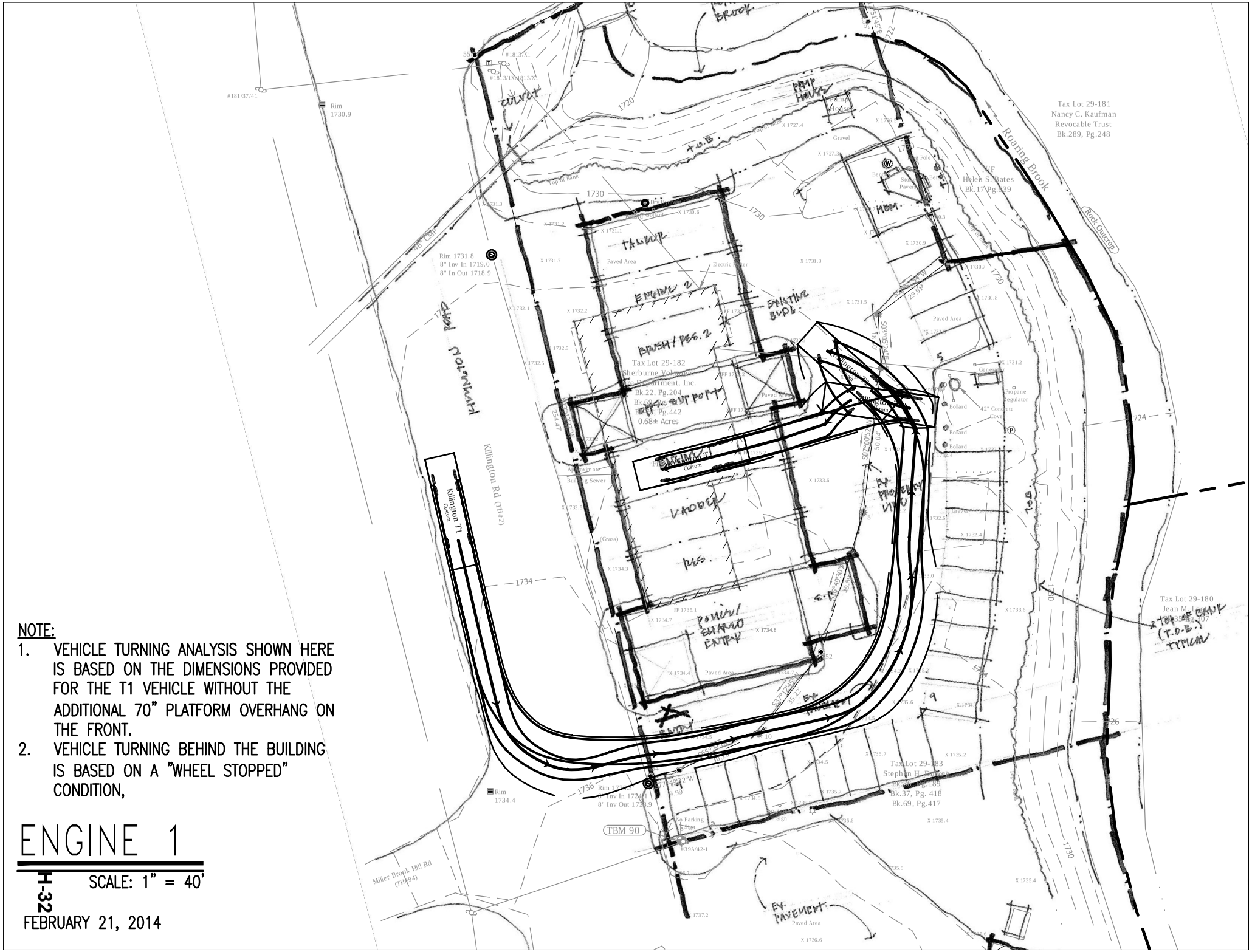
2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

ENGINE 2

H-31

SCALE: 1" = 40'

FEBRUARY 21, 2014



NOTE:

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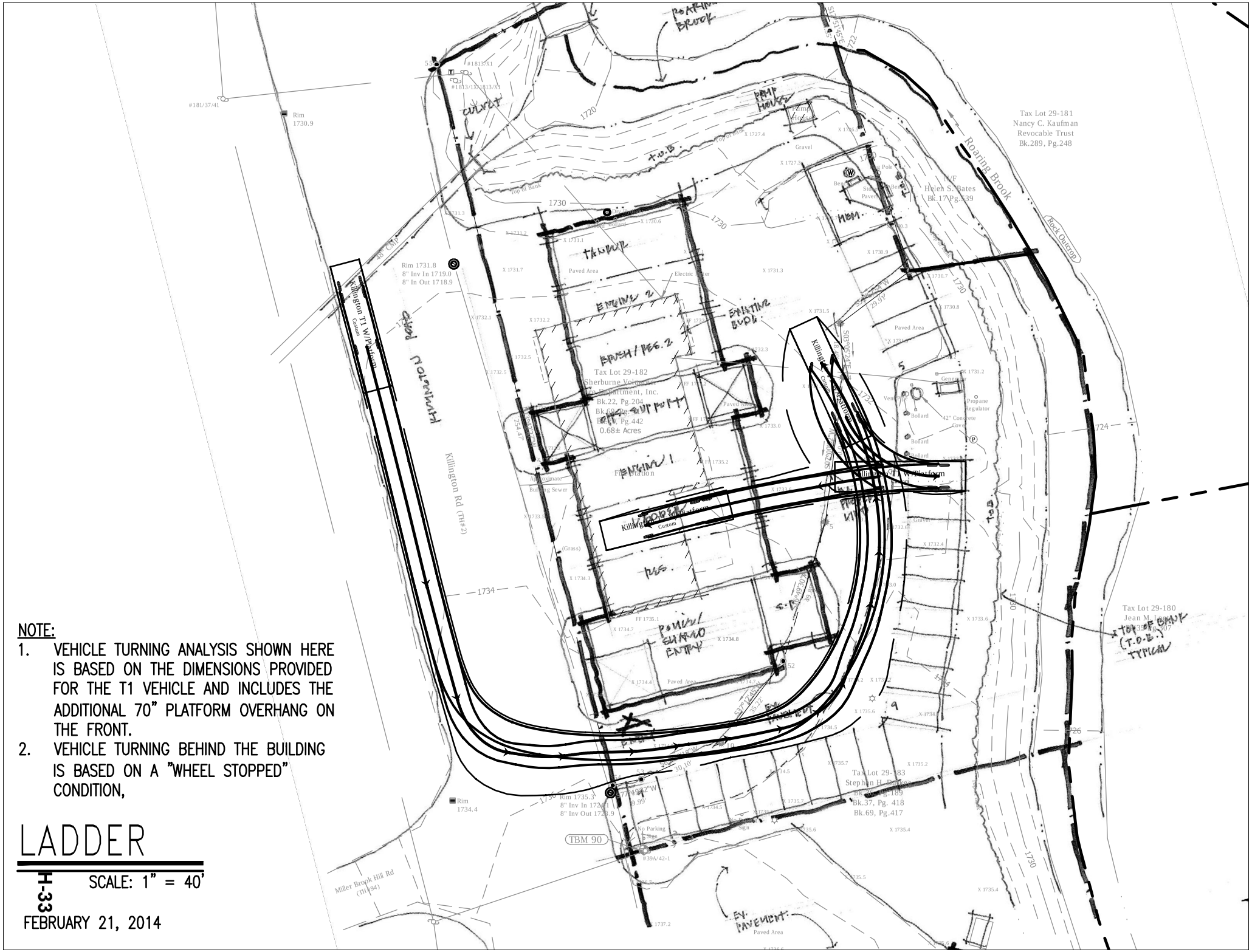
2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

ENGINE 1

SCALE: 1" = 40'

H-32

FEBRUARY 21, 2014



NOTE:

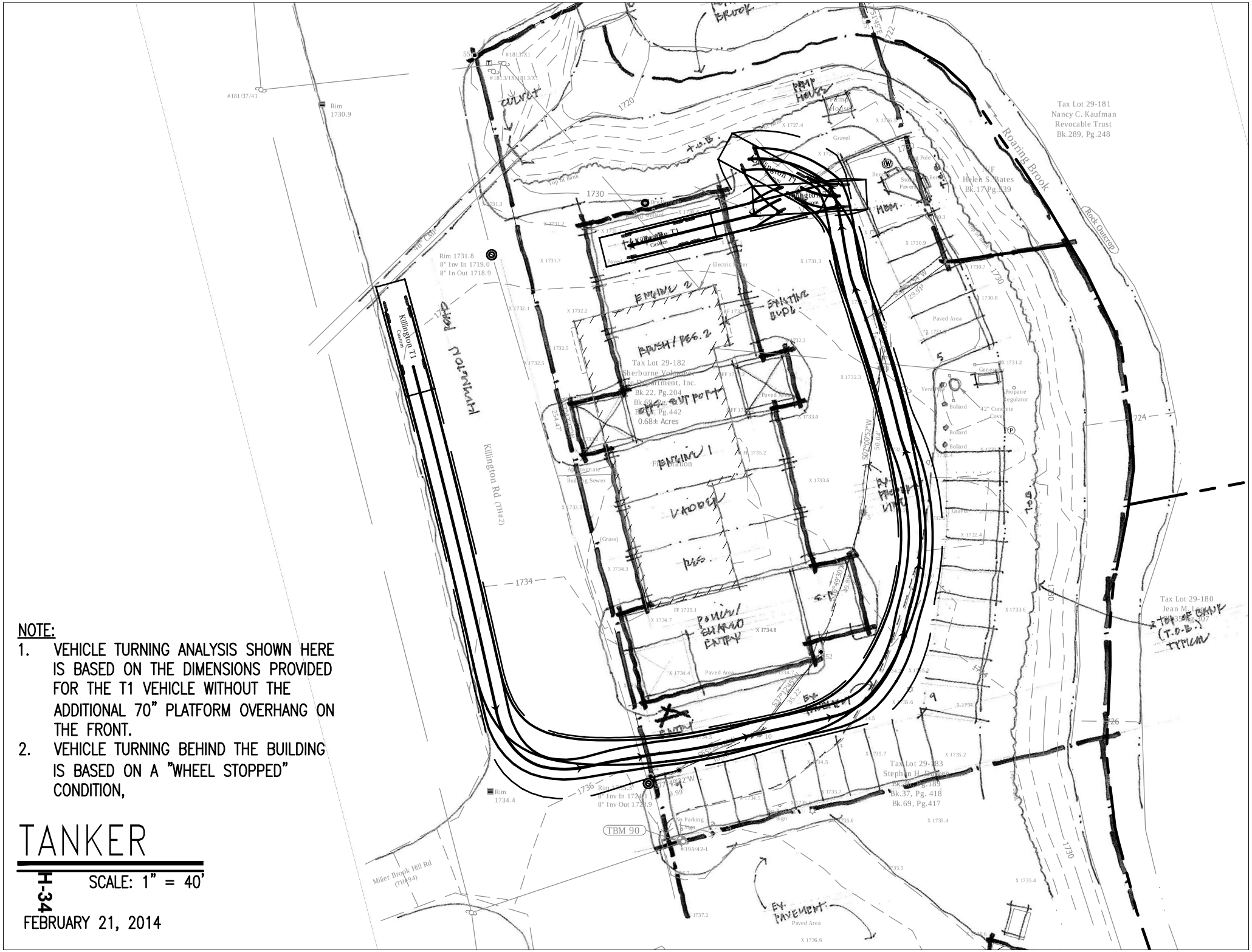
1. VEHICLE TURNING ANALYSIS SHOWN HERE IS BASED ON THE DIMENSIONS PROVIDED FOR THE T1 VEHICLE AND INCLUDES THE ADDITIONAL 70" PLATFORM OVERHANG ON THE FRONT.
2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

LADDER

SCALE: 1" = 40'

H-33

FEBRUARY 21, 2014



NOTE:

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2. VEHICLE TURNING BEHIND THE BUILDING IS BASED ON A "WHEEL STOPPED" CONDITION,

TANKER

SCALE: 1" = 40'

H-34

FEBRUARY 21, 2014

Killington Volunteer Fire Department

Equipment Specifications

Engine	Length	Wheelbase	Length	Wheelbase
E-1	36’	18’-9”	432”	225”
E-2	29-3”	16’-0”	351”	192”
E-4	27’-8”	13’-4”	332”	160”
T-1	39’-2”	20’-10”	470”	250”
R-1	34’-7”	18’-9”	415”	225”
Brush	23’-0”	14’-3”	276”	171”

Killington Public Safety

Capital Improvement Schedule

07-2014

Number	Category	Portion of Exg Building	Scope of Work
1	Site		Purchase the shared parcel of land
2	Architectural	Original	Increase batt insulation from R5 to R19 at exterior walls
3	Architectural	Original	Demolish and rebuild exterior balcony
4	Architectural	Original	Repaint all exterior siding and trim
5	Architectural	Middle Bays	Increase batt insulation from R10 to R19 at exterior walls
6	Architectural	Middle Bays	Repaint all exterior siding and trim
7	Architectural	App Bay for Tower	Increase batt insulation from R10 to R19 at exterior walls
8	Architectural	App Bay for Tower	Repaint all exterior siding and trim
9	Architectural	Middle Bays	Replace metal roofing
10	Architectural	All	Man Doors: Replace with commercial grade, insulated doors with commercial grade hardware
11	Architectural	All	Replace all exterior windows with insulated windows
12	Architectural	Original	Repair and refinish spalling concrete slabs in App Bays
13	Architectural	Middle Bays	Add one HC accessible Toilet and shower
14	Architectural	Middle Bays	Provide a HC Accessible Ramp at the Main Entrance unless other doorways can be found without a step.
15	Architectural	All	Replace many doorways which are too narrow to meet ADA
16	Architectural	All	Provide one additional stairway from the second floor for fire egress
17	Architectural	Middle Bays	Provide adequate guradrails and handrails at existing stairway
18	Architectural	Middle Bays	Provide a fire protected range hood is any food is to be fried at the station

Capital Improvement Schedule

07-2014

Number	Category	Portion of Exg Building	Scope of Work
19	Architectural	Middle Bays and App bay for Tower	Either remove steps between bays by using ramps of see if AHJ will allow proper steps with railings
20	Architectural	All	Remove all stored items in egress Corridors
21	Architectural	All	Recommend installing a fire protection (sprinkler) system through the entire building
22	Architectural	Original	Revise Turn Out Gear Locker Area to see if adequate number of lockers installed
23	Architectural	All	Look at providing additional permanent storage space instead of the storage container
24	Architectural	All	Add Elevator from first to second floor for compliance with ADA
25	Architectural	Middle Bays	Renovate Kitchen for ADA accessibility
26	Structural	All	Look at providing additional shear wall reinforcing by adding sheathing or increase nailing due to "Essential Facility" type
27	Structural	All	Increase reinforing at second floor and roof framing
28	Structural	Original	Replace columns due to rusting bases
29	Structural	All	Any planned reuse of the building will require additional structural assessment
30	Mechanical	All	The SCBA should have a separate compressor and fresh air intake
31	Mechanical	All	Look at newer more energy efficient heating system
32	Mechanical	All	Look at replacing plumbing fixtures with lower water consumption models

Capital Improvement Schedule

07-2014

Number	Category	Portion of Exg Building	Scope of Work
33	Electrical	Original, Middle Bays	New electrical panels and sub panels should be installed in the 1984 and 1974 portions of the building
34	Electrical	All	Install a TVSS (transient voltage surge suppressor) with under voltage protection
35	Electrical	All	All circuits in panels should be traced and properly labeled
36	Electrical	Original, Middle Bays	All exterior lighting should be replaced in the 1974 and 1984 portions of the building
37	Electrical	All	Consider adding Occupancy controls throughout
38	Electrical	All	Consider adding emergeny lighting and exit egress path lighting
39	Electrical	Original, Middle Bays	All wiring in the 1974 and 1984 portions of the building should be completely removed and replaced
40	Electrical	All	Fire Alarm: Add horns and strobes where coverage is not adequate
41	Electrical	All	Fire Alarm: Non-ADA horns a strobes should be replaced
42	Electrical	All	Add fire alarm devices in all rooms which do have any
43	Electrical	All	Install a smoke detector above the main fire alarm panel
44	Electrical	All	Consider adding a security system and cameras
45	Electrical	All	Install a new telephone/data system with a network hub with a dedicated area.
46	Electrical	All	Provide new Cat.5e wiring to all phone and computer locations.
47	Electrical	Original, Middle Bays	Replace receptacles with GFI outlets in Apparatus Bays
48	Electrical	Middle Bays	Replace receptacles with GFI outlets in the Kitchen
49	Electrical	All	Various code violations in wiring techniques throughout most of the building

Capital Improvement Schedule

07-2014

Number	Category	Portion of Exg Building	Scope of Work
50	Electrical	Original	Replace exposed romex wiring in Apparatus Bays identified in the report.
51	Electrical	Original	Cords feeding Apparatus are not GFI protected and should be replaced.
52	Electrical	All	Replace all incandescent bulbs in closets with flourescents

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

ARCHITECTS
PROJECT MANAGERS

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DATE OF MEETING: 9 October 2013

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Kick-off Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department
Steve Finer (SF)	Killington Fire Department
David Gouchberg (DG)	Killington Fire Department
Kevin Worden (KW)	Engineering Ventures
Donald Walter (DW)	Dore & Whittier Architects Inc.
Alan Brown (AB)	Dore & Whittier Architects Inc.

1. D&W reviewed the Project and scope of anticipated work which includes the following:
    a. Analyze the existing building and site
    b. Start with a questionnaire to be filled out by department
    c. Meet to review the questionnaire
    d. Prepare a program and diagrams for each room
    e. Prepare a list of deficiencies along with costs
    f. Look at options
        i. Renovate
        ii. Addition and renovation
        iii. Build new

2. The Design Team will take a look at site options. The Town will be looking at what other sites may be available.
    a. SF mentioned that if other sites are looked at, ISO location is critical. This is different than response time and involves mileage.
    b. The ISO requires not more than a 5 mile distance from the fire station to the covered area.
    c. SW mentioned that the current site is still preferred and is Town owned
    d. May be issues with temporary services and relocation
    e. They are looking at the site across the street.

3. Prepare documents and assist the Town with Public Presentations.

4. The study does not have to be completed by Town Meeting (scheduled for March 4, 2014).

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5. AB distributed a paper copy of the Fire Station Questionnaire. SW requested electronic copies be sent to him for distribution.

6. It was agreed that Wednesday evenings work the best meetings to be held every two weeks. A revised schedule was discussed with a revised copy attached to these meeting minutes.

7. The design Team will be at the site on 10-16-13 at 8:00 to perform the assessment of the existing fire station. SF will meet them at the station.

8. The BC would like to have the Design Team look at adding space for the Killington Police Department. They are currently a very small force with only 2 officers. A questionnaire will also be sent to be filled out by the Police Department to understand their needs (present and future).

9. State Police also use the facility. They may want some space to rent in the facility.

10. Site Challenges and Issues:
    a. There is currently a pumps station that pumps stream water from the adjacent stream into a holding tank under one of the bays
    b. Storm water drainage may not meet current standards
    c. There are underground propane tanks

11. There is currently three phase service and generator that covers 100%of the building. It is a 60KW generator.

12. Deficiencies and other issues Fire Department sees at existing facility:
    a. Apparatus Bays are not large enough
    b. Apparatus aprons are too small
    c. They do not have a gear extractor but are trying to fund one
    d. The building is not in compliance with ADA
    e. The station is used as an emergency shelter. It is a command center during storms
    f. They want an EOC. Will have to look at location and requirements to be above the 500 year flood.
    g. If school needs to evacuate, they go to the station
    h. The public do come to the facility
    i. There is not enough storage area for gear
    j. EMS training is held at the fire station
    k. The facility needs to be better organized
    l. The facility should create an attitude of safety as well as a good work environment.

13. The Town does have a conceptual plan ("Civic Plan") of how the Town would like to see itself in the future. It mostly involves road improvements for pedestrians with an central apron on Killington Road.

14. The Town is discussing with the neighbor to the south of the site regarding the right of way (ROW). The FD currently uses the entire ROW and would like formal ownership of the entire ROW.

15. There are limited plans of the existing facility. AB took what they had and will scan and then return.

16. There is a local energy sustainability group and will want to be involved with the Project. They are looking for a healthy, energy efficient, functioning, maintenance reducing building.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Revised Project Schedule with Deliverables dated 10-10-13

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	

Killington Fire & Rescue Design Schedule

Revised 10-10-13

Meeting Number	Possible Date	Items to be discussed	Deliverables	Attended By:
A		**Start-Up / Pre-Design**		
1	10-9-13 7:00pm	Issue Questionnaire for Fire Department Verify number and sizes of fire apparatus; use of Station 2/site Establish project goals including sustainability Confirm Scope, Schedule, Deliverables (Contract) Discuss Public Information Protocol	Questionnaire Design Schedule	D&W, Kevin W (EVI)
B		**Investigation / Programming**		
2	10-16-13 8;00 am	Design Team On-Site Data Collection / Assessments		D&W, EVI, CRW, Pearson
3	10-30-13 6:00pm	Review initial Program / Space Needs Analysis Review initial conceptual room space diagrams (based on returned Questionnaire) On-site training elements Review initial Site Information Initial review of applicable building codes Space relationships (bubble diagrams)	Draft Space Needs Analysis and Room Diagrams completed by Design Team	D&W, CRA
4	11-13-13 6:00 pm	Program, Space Needs, Room Diagrams Circulation, Utilities, Zoning regulations Potential Layout Options Spatial Relationships	Final Space Needs Analysis and Room Diagrams	D&W
C		**Design Options Phase**		
5	12-4-13 6:00pm	Present Initial Concept Plans	Site/Building Concepts	D&W
6	12-18-13 6:00pm	Present refined Concept Plans Estimated costs	Site/Building Concepts	D&W
7	*1-7-14 or 1-21-14 7:30pm*	*Potential Public Meeting*	*Present Conceptual options and costs*	*D&W, CR*
8	1-22-14 7:00pm	Select Preferred Concept Develop Schematic design • Site and Floor Plans • Initial Exterior elevation and modeling • Preliminary construction/phasing schedule • Preliminary project costs	Schematic documents	D&W
9	2-5-14 7:00pm	Finalize Schematic Design of Preferred Option	Design Team to present SD plans and supporting documents	D&W
	2-12-14 thru 3-14-14	*Potential Public Meetings and Town Meeting*	*Study Process and Findings*	*D&W*

Dore & Whittier Architects/CR Architects

Attendees

Name	Affiliation	Email	Phone
Alan Brown	Dore and Whittier Arch	abrown@doreandwhittier.com	802 863-128
Donald Walter	"	DWALTER@DOREANDWHITTIER.com	
Seth Webb	Town of Killington	SETHWEBB@TOWN.KILLINGTON.VT.US	802-422-3241
Gary Rotte	Killington Fire	REPACK1@AOL.com	802 342 0041
Steven Finer	Killington Fire	PRES@KFRUT.org	802 353-2173
Kevin Worden			
David Gouchberg	Killington Fire Rescue	dgouchberg@gmail.com	802-422-3303

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MEETING MINUTES

DATE OF MEETING: 30 October 2013 (***Notes Revised 11-11-13)***

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Programming Meeting with Building Committee

ATTENDING:

Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
David Gouchberg (DG)	Killington Fire Department (KFD)
Mark Shoemaker (MS)	CR Architecture + Design (CRA)
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. D&W gave a brief overview of deficiencies found during the Design Team's trip to the site. They will be part of the assessment report. Items included:

Architectural

a. Concrete floor finish is spalling at the Original Apparatus Bays
b. Most windows are single pane with triple track storm windows. They are not energy efficient.
c. Exterior of the building
   i. Siding needs to be painted
   ii. Metal Roof is not in very good shape
   iii. Man doors are not a commercial grade
   iv. Shingle roof appears to be in decent shape
d. There is only one stairway. It does not comply with current building codes
e. Building does not comply with Americans with Disabilities Act (ADA)
f. There is only one unisex toilet room and shower. There should be a male and female. Does not comply with ADA or State plumbing code.
g. There is no place to dry hoses.
h. Carpets are in bad shape
i. There is not enough general storage space.
j. There are steps between Apparatus bays. These have not been constructed per building code and pose a safety hazard especially when responding to emergencies

Structural and Civil

k. The steel columns in the original building are rusted near the bases and will likely require replacement.
l. More than likely, the building does not comply with current building codes including seismic requirements.
m. Water appears to sheet flow from the existing parking area in 3 locations towards the Roaring Brook in the rear. Assuming that there is close to 1 acre of impervious area

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(building and pavement), any additional impervious area more than 5,000sf will require a storm water permit, which will require treatment and attenuation of stormwater from new impervious areas.

n. Wetland buffers and river riparian buffers may require for any new construction. The ANR policy for Act 250 projects is between 50ft and 100ft buffer for riparian protection, however this project will not likely require an Act 250 permit.
o. Any major renovation to the existing building, or new building, will require an ANR Wastewater permit, possibly an ANR Stormwater and Erosion Control permit and local Planning and Zoning permits.

Mechanical

p. No major issues. Many of the heaters are getting old and should be replaced soon. They may be better off upgrading to gas unit heaters when these heaters need to be replaced
q. Most of the equipment is not very energy efficient
r. There is no central ventilation system
s. The carbon monoxide filters in the Apparatus bays are working and keep soot down to a minimum.

Electrical

t. The size of the existing service should be increased to allow for future expansion and additional loads. New panels and subpanels should be installed in the 1984 and 1974 portions of the building.
u. New lighting and controls should be installed to replace all exterior fixtures. All lighting in the 1974 and 1984 portions of the building should be removed and replaced. Lighting should meet ASHRAE/IES STANDARD 90.1 – 1989 and the 2012 Vermont Guidelines for Energy Efficient Commercial Construction for energy efficiency.
v. All wiring in the 1974 and 1984 portions of the building should be completely removed and replaced.
w. Consider adding emergency lighting and exit egress path lighting.
x. Install a completely new tel/data system with a network hub with a dedicated area. Provide new Cat. 5e wiring to all phone and computer locations using a central hub and server with a Cat 5e patch panel and a connection to a high speed internet connection.

2. Questionnaires were reviewed with the following questions addressed:

Police

a. Police (Police Chief was not in attendance. Fire took their best guesses).
b. The plan will be for 2 sworn officers currently with 2 more part time officers planned for next year. Chief is one of the sworn officers.
c. A soft interview or complaint room should be located near the front Lobby
d. Dispatch area not required (dispatch is thru State Police). Three workstations indicated are to be located in the Patrol Room. Vermont State Troopers could use the Dispatch/Alarm Room.
e. Design for male and female future rest rooms

Fire

f. Water storage will be needed for truck fill. There is not city water.
g. Assume 3 shifts for now
h. KFD will measure lengths of their current Apparatus (bumper to bumper) and send information on their future Apparatus.
i. Number of Offices:

i. Chief – private
ii. 2 Asst. Chiefs – shared
iii. Training Officer – small private office with locked files. Need to confirm whether Training Officer and EMS can be shared.
iv. Small Group Office for Captains and Deputy Chiefs – for up to 4 workstations
v. Company Office – can be a shared office for President and Vice President – larger size for files
vi. Company Clerk – work area with a bench – "Quartermaster"
vii. First Responder or EMS – could be in a shared office with Training Officer if locked files. Need to verify.

j. All offices should be grouped together
k. Hand on Training- provide a space to put ladders, ropes and other extrication tools
l. Hose Drying – a Tower would be preferred.
m. Dayroom – recliners are preferred.
n. Sleeping Quarters – change to hot sheet
o. Look at providing bed-racks or Murphy beds in officers' offices. Verify if only in Chief's Office.
p. A vehicle lit or pit will not be required.

3. Vehicle exhaust systems were discussed. MS stated that approx. 50% of fire stations completed by CR include source capture vehicle exhaust systems. Also stated that it is typically a preference by the fire department unless required by a funding agency.
   a. Basic new ventilation systems remove most of the carbon monoxide, carbon dioxide and other fumes.
   b. New Apparatus do not emit as much soot as before.
   c. Some fire stations do not like since personnel do not always hook up to the Apparatus every time.
   d. We will put in a vehicle exhaust system into the budget as place holder.

Review of Room Diagrams

4. Shared Spaces
   a. One main public entrance with two separate staff entrances for each department would be acceptable.
   b. Training Room
      i. Currently shown as 24 chairs and tables and around 40 chairs only at 540 SF
      ii. Should be increased slightly, maybe up to 750 SF
      iii. To be used as a command center during emergencies
      iv. School would use as an emergency shelter
   c. Public Rest rooms
      i. Is located near or adjacent to Training Room
      ii. This is usually oversized from the Plumbing Code due to Training Room requirements (i.e. breaks).
   d. Hospitality
      i. Small space within or near Training Room
      ii. Could be just an alcove
   e. Training Prop Storage
      i. Keep separate from Training Room Storage

f. Fitness Room
    i. This is a want of the department and could help draw in new volunteers

5. Fire Spaces
    a. Dispatch/Alarm
        i. More of a report room
        ii. Can be used as Back-up Dispatch
        iii. Provide two work stations
        iv. Usually located on the main path to Apparatus Bays
    b. Lobby/ Waiting
        i. Could be shared with Police
    c. Triage Room
        i. Definitely a need
    d. Fire Chief's Office
        i. Contains files and book shelves
        ii. Two chairs in front of Chief's desk is acceptable
        iii. Look at having enough space to take out bookshelves and include a pull down Murphy bed.
        iv. Try and locate a window overlooking Killington Road
    e. Administrative Assistant/ Records
        i. Provide a lockable door into the office
    f. Assistant Chief (Deputy Chief)
        i. Change to Deputy Fire Chief's Office
        ii. Layout is acceptable
        iii. Do not include a Murphy bed
        iv. 2 work stations
    g. President and Vice Presidents Office
        i. Same size as deputy Chief's office
        ii. 2 work stations
    h. Training Officer
        i. Make same size as the Deputy Fire Chief's
        ii. Provide desk returns
        iii. Include lateral files
        iv. Back-up files will be in the File Storage Room
        v. 2 work stations
    i. Shared Offices
        i. Room for 2 Captains and 2 Lieutenants
        ii. Remove Plan files from center of the room and reduce size
        iii. Provide a separate area for plan review
    j. First Response (EMS Office)
        i. Keep as shown
    k. Conference Room
        i. Can double as a boardroom
        ii. Keep number of seats as 8 to 10
        iii. Could eliminate and use Training Room
    l. Archival Documents Storage
        i. Modify and use space for Plan Review
    m. Work Room
        i. Provide a sink unless it is located near Kitchen or Hospitality

n. Staff Restroom
    i. Keep as a place holder for now
    ii. Could double as public restrooms if located near Training Room
o. Dormitory Bedroom
    i. Prefer Sleeping Quarters plans. No Doors – can be male female without the doors
    ii. Semi-private Option shown
    iii. Modify with lockers dividing bunk areas
    iv. A revised sketch will be submitted for next meeting
    v. Provide 6 beds with lockers
p. Toilet/ Showers
    i. Agreed to be gender neutral
    ii. A total of three will be required
q. Kitchen/ Dining/ Dayroom
    i. Keep as an open plan
    ii. Reduce to three (3) refrigerators and three (3) pantries
    iii. Relocate mail slots near the Radio Room
r. Domestic Laundry
    i. Locate near Living quarters
    ii. This area is separate from Decon./ TOG Storage
s. Apparatus Bays
    i. The Department will take the initial sketch and relocate the Apparatus as they see fit. They will also confirm all required and lengths (bumper to bumper) and width.
    ii. They do not have an issue backing in Apparatus into the Bays
    iii. The current apron off Killington Road is too small
    iv. Bays are currently being shown at 80 feet long which is a standard design depth for double-deep bays.
    v. Overhead doors are usually a minimum of 14 foot by 14 foot
t. Training Tower:
    i. The Department would like to have Training Tower that can also dry hoses.
    ii. They do not have an adequate place to dry hoses currently
u. TOG Storage
    i. 30 lockers are shown and is acceptable
    ii. Size should be 24 x 20
v. Shop/ Tool Storage
    i. Only cutting and grinding in this area. No welding
    ii. Space should open rather than enclosed
    iii. Space could be made smaller than shown
    iv. Provide two benches and racks for tools
    v. Need to locate compressor to tools to reduce the sound impact
w. Decon/ Medical Clean Room
    i. Add eyewash
    ii. Look at space for a gear dryer about the same size as the gear washer. GR to send information on this type of gear dryer.
    iii. CR has included space for a stackable washer and dryer
x. Dirty Restroom
    i. No comments
y. SCBA Room

i. Reuse existing equipment. They currently have system by "Mako". There are three compartment
ii. GR of SF will get picture and cut sheet information on the type they have
iii. Provide portable racks
iv. Need space for two (2) air bottle racks. One for empties and one for full. Maybe an area for spent bottles

z. Medical Supply
i. They do need a sink
ii. Relocate ice maker in Triage if it is near the App Bays. If not look at other locations.

aa. General Storage
i. Need an area for a Quartermaster. This includes a workbench, workstation, shelving, bins and storage of dispensable items
ii. This area is mostly associated with the Apparatus Bays

bb. Apparatus Bays Clean Closet
i. They do have cleaning dispensers for some items.

Review of Initial Space Needs Analysis

6. Police is approximately 3,295 SF. Fire is approximately 17,325SF, Public Areas is approximately 1,335 SF, and Shared Space is approximately 1,765. Total is approximately 24,156 SF. These all include infrastructure and circulation factors. These areas will be modified after this meeting
7. Relocate Server Room under Shared Space.

8. The Design Team has prepared preliminary drawings of the existing fire station (plans and elevations). Copies were handed out at the meeting.

9. Next steps are to refine the Room Diagram, update the Space Needs Analysis, prepare initial conceptual plans showing adjacencies and start showing plans on the existing site.

10. Next meeting is scheduled for 10-13-13 at 6:00 pm at the fire station. This will be a conference call with CR Architecture + Design.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Sent previously with Original set of Meeting Minutes

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Mark Shoemaker	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
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MEETING MINUTES

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DATE OF MEETING:	6 November 2013	
PROJECT:	Killington Fire Station Study	
PROJECT NO.:	13-0667	
SUBJECT:	Programming Meeting Police Department and Town Manager (via telephone Conference)	
ATTENDING:	Seth Webb (SB)	Killington Town Manager
	Robert Montgomery (RM)	Killington Police Chief
	Mark Shoemaker (MS)	CR Architecture + Design (CRA)
	Matt Murtha (MM)	CR Architecture + Design (CRA)
	David Roth (DR)	CR Architecture + Design (CRA)
	Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
	Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. Questionnaires were reviewed with the following questions addressed:

   Police
   a. Sallyport
      i. One should be included
      ii. Will be included in the initial layout. One was not included in with the Room Diagrams due to the response in the Questionnaire
   b. Interview/ Complaint Room
      i. One off Lobby
      ii. One in Prisoner Processing
   c. Records and Dispatch
      i. Not needed. Delete from the Program
      ii. Provide up to three workstations in the Fire Report Room which can be shared with Police
   d. Locker Rooms
      i. They do not currently have male female locker rooms
      ii. They may need in the future

Review of Room Diagrams

2. Shared Spaces
   a. Entries
      i. One main public entrance with two separate staff entrances for each department would be acceptable.
3. Police

a. Soft Interview/ Complaint
    i. Dual access – one from Public Lobby and one from secure side
b. Dispatch Area
    i. Not needed
c. Lobby/ Waiting
    i. May be shared with fire
d. Police Chief's Office
    i. Provide conference table type of layout
    ii. Office could become smaller if there is a conference room nearby and could be shared with Fire
e. Administrative Assistant'
    i. Not needed. Could be shared with Fire
f. Access control by Police Officers
    i. Not very much interaction with public
g. Work Room
    i. To be part of the Patrol Room
h. Staff Restrooms
    i. Not needed. Use the toilets in the Locker/ Shower Rooms
i. Training Room
    i. Can be shared with Fire
j. Patrol Room
    i. The name of this is correct for Killington
    ii. Incorporate fax and copier into this room
    iii. Interview rooms could be located near to serve double duty for private conferences
k. Break Room
    i. Have off on one side of the Patrol Room
    ii. Small kitchenette
l. Evidence Processing Garage
    i. Not needed
m. Men's Lockers
    i. 8 Lockers shown. Change to 5 lockers
    ii. Lockers are 30 inches wide, full height with benches
n. Female Lockers
    i. 3 lockers shown. Change to 2 lockers
    ii. Lockers are 30 inches wide, full height with benches
o. Evidence Processing
    i. Based on the smallest possible pass-through evidence lockers
p. Evidence Storage
    i. Is adequate
q. Booking and Processing
    i. Add window from Patrol Room
r. Hard Interview
    i. Just one room needed
s. Detention Cells
    i. One male , One Female (two cells)
    ii. Design Team is to research whether Vermont requires Holding Cells
    iii. What is State's juvenile cell requirements
    iv. Prisoners are transferred to Rutland Correction Facility

Review of Initial Space Needs Analysis (for Both Police and Fire)

4. Police is approximately 3,295 SF. Fire is approximately 17,325SF, Public Areas is approximately 1,335 SF, and Shared Space is approximately 1,765. Total is approximately 24,156 SF. These all include infrastructure and circulation factors. These areas will be modified after this meeting and the Fire meeting.

Review of Fire Department

5. SW feels there may be too many offices for the Fire Department. He will discuss with them.

Site Questions/ Issues

6. MS pointed out that there is not much room on the existing site. Building may have to be three stories high.

7. There are several zoning questions and clarification on how far a new facility can get to the existing stream. CRA will compose a list of questions and will be asked of both the Civil Engineer and SW.

8. Next steps are to refine the Room Diagram, update the Space Needs Analysis, and prepare initial conceptual plans showing adjacencies and start showing plans on the existing site.

9. Next meeting is scheduled for 10-13-13 at 6:00 pm at the fire station. This will be a conference call with CR Architecture + Design.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl.

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Mark Shoemaker	CR Architecture + Design

Matt Murtha	CR Architecture + Design
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MEETING MINUTES

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DATE OF MEETING: 13 November 2013

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Programming/Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Robert Montgomery (RM)	Killington Police Department (KPD)
Zach Zettler (ZZ)	CR Architecture + Design (CRA) via phone
Mark Shoemaker (MS)	CR Architecture + Design (CRA) via phone
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
David Ross (DR)	CR Architecture + Design (CRA) via phone
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

Review of Initial Space Needs Analysis

1. The revised version indicates requested and recommended Program Space (copy attached). The total requested area is 24,281 SF and the recommended total area is 20,111 SF.

2. The Remarks column indicates recommended changes. Some of these recommendations are reducing the number of Offices and reduce number of Apparatus Bays from four to three.

3. CRA looked at these recommendations due to site constants.

4. Police Program appears to be the bare minimum

5. Some spaces could be used by Fire if Fire Department grows and Police moves to a separate location as they grow.

6. Next meeting is scheduled for 12-4-13 at 6:00 pm at the fire station. This will be a conference call with CR Architecture + Design.

7. Training Room:
    a. Training Room could be used as a conference room in order to reduce area.

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b. Training Room to be shared between both Fire and Police
c. Recommended reduction of the Training room goes from 850 SF back down to 450 SF.
d. If Training Room is not used by Public, public toilets could be eliminated and the Lobby can be reduced in size
e. Town feels the Training Room may be too small and would like to look at a Training Room that will accommodate 30 to 35 people.
f. Killington would like to still have community access.
g. CRA will look at smaller size public toilets.
h. Hospitality area will become a nook within the Training Room.

Review of Revised Room Diagrams

8. The group decided that they would review Room Diagrams after the meeting and then send the Design Team any questions or comments.

Review of Conceptual Site Plans

9. The Existing Site Plan indicates setbacks from Property Lines as well as anticipated setback from Roaring Brook. It also indicates that the southern side of the site indicates that KFD is using land (paved drive and parking) they do not actually own. SF said they have an understanding with their southern neighbor.
    a. KFD has discussed with the neighbor about purchasing this land.

10. The Design Team presented a Site/Footprint Program Diagram, which is taking the requested Program and laying it over the existing site plan. The plan clearly shows that the plan will spill over into the neighbor's land and would require variances for Town's setbacks but would still be out of the assumed setback from Roaring Brook.

11. The Design Team presented Conceptual Site Design Plan A
    a. Plan shows three 80 foot long Apparatus Bays located along Killington Road
    b. Support Spaces would be on the Roaring Brook side.
    c. A sallyport is located on the south side
    d. The Main Entry and Training Tower would be at the North Side
    e. There is limited Apparatus maneuvering
    f. There is limited public , responder and police parking

12. The Design Team presented Conceptual Site Design Plan B
    a. Plan shows three 80 foot long Apparatus Bays along Roaring Brook
    b. Support Spaces would be along Killington Road
    c. A sallyport is located on the south side
    d. The Main Entry and Training Tower would be at the North Side
    e. There is limited Apparatus maneuvering
    f. There is limited public , responder and police parking
    g. The Plan offers more opportunities for architectural design with the Support Spaces along the road (ie can work with different roofs). There would be more flexibility in design.

13. There is a possibility of buying additional land from The Marketplace (southern neighbor) in order to provide more parking and maneuverability for fire apparatus. SF will talk with the property owner,

Steve Durkee. The Design Team will look at and prepare conceptual site plans on how buying more land and squaring off the south end could be utilized.

14. Design Team will stop by Friday and gather up any tax maps or site plans of the Market Place property.

15. Town would like to start showing a carport for Police vehicles on the site plans

16. For planning purposes it was agreed to have the following parking spaces
    a. Police 5 vehicles
    b. Fire 20 to 27 vehicles
    c. Public 5 vehicles

17. KFD confirmed that they will need space for seven(7) fire apparatus:
    a. (1) Tanker
    b. (2) Engines
    c. (2) Rescue
    d. (1) Tower
    e. (1) Brush

Next Steps

18. Town will verify and send information on Fire Apparatus including sizes and turning radius if available.

19. Next Meeting is scheduled for **12-4-13 at 6:00 pm at the Fire Station**, Conceptual site/footprint plans will be reviewed as well as a Renovation Option.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Revised Space Program Analysis dated 11-13-13
Existing Site Plan dated 11-13-13
Site/Footprint Site Plan dated 11-13-13
Concept Site Plan A dated 11-13-13
Concept Site Plan B dated 11-13-13

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	

SPACE NEEDS ANALYSIS

Killington Public Safety Complex

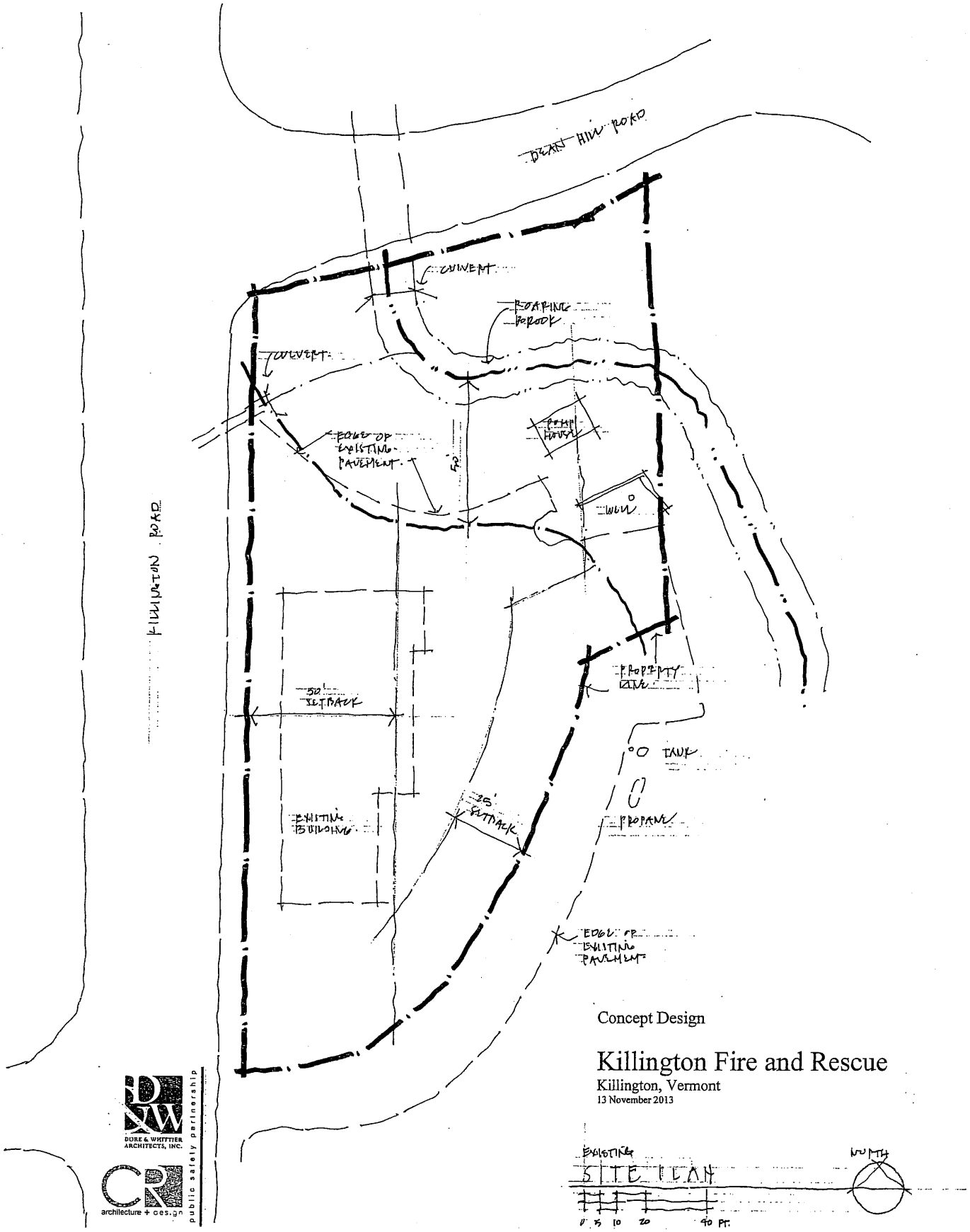
November 13, 2013

PROGRAMMED SPACE	REQUESTED	RECOMMENDED	REMARKS
Police Department			
PUBLIC SPACES			
Soft Interview / Complaint	100	100	
Waiting Area	120	120	
SUBTOTAL	**220**	**220**	
ADMINISTRATION			
Police Chief Office	200	200	
SUBTOTAL	**200**	**200**	
OPERATIONS			
Patrol Room	440	440	
Kitchenette	60	60	
Toilet/Shower/Locker (Male)	330	330	(5) Lockers
Toilet/Shower/Locker (Female)	190	190	(2) Lockers
Evidence Processing	110	110	
Evidence Storage	65	65	
Booking	235	235	
Hard Interview Room / Cuffing	75	75	
Detention Cell - Male	70	70	
Detention Cell - Female	70	70	
Secure Toilet	40	40	
Sallyport	540	540	Single vehicle
SUBTOTAL	**2,225**	**2,225**	
Grand Total Police Department	**2,645**	**2,645**	

Killington Public Safety Complex

November 13, 2013

PROGRAMMED SPACE	REQUESTED	RECOMMENDED	REMARKS
Shared Spaces			
PUBLIC AREAS			
Entry Vestibule - Lobby	200	100	
Public Toilet (1 set of 2 rooms)	280		
Training Room / EOC	825	450	
Hospitality Room	125	60	
Training Prop Storage	100	100	
Training AV & Table / Chair Storage	100	100	
SUBTOTAL	**1,630**	**810**	
SHARED SPACES			
Server Room	100	100	
Fitness Room	400	400	
Janitor's Closet	30	30	
SUBTOTAL	**530**	**530**	
Grand Total Shared Spaces	**2,160**	**1,340**	
BUILDING SYSTEMS + CIRCULATION			
Stairs	1,080	1080	2 @ 180 SF/Flr x 3 Flrs
Elevator	160	160	3 Flrs @ 53 SF/FLR
Elevator Machine Room	80	80	
Mechanical/Electrical	500	500	
SUBTOTAL	**1,820**	**1,820**	
SUMMARY			
Police Department	2,645	2,645	
Shared Spaces	2,160	1,340	
Subtotal	4,805	3,985	
Infrastructure @ 15%	721	598	
Building Circulation @ 20%	961	797	
SUBTOTAL SF	**6,487**	**5,380**	
Fire Department	12,415	9,965	
Building Systems + Circulation	1,820	1,820	
Subtotal	14,235	11,785	
Infrastructure @ 12.5%	1,779	1,473	
Building Circulation @ 12.5%	1,779	1,473	
SUBTOTAL SF	**17,794**	**14,731**	
GRAND TOTAL SF	**24,281**	**20,111**	

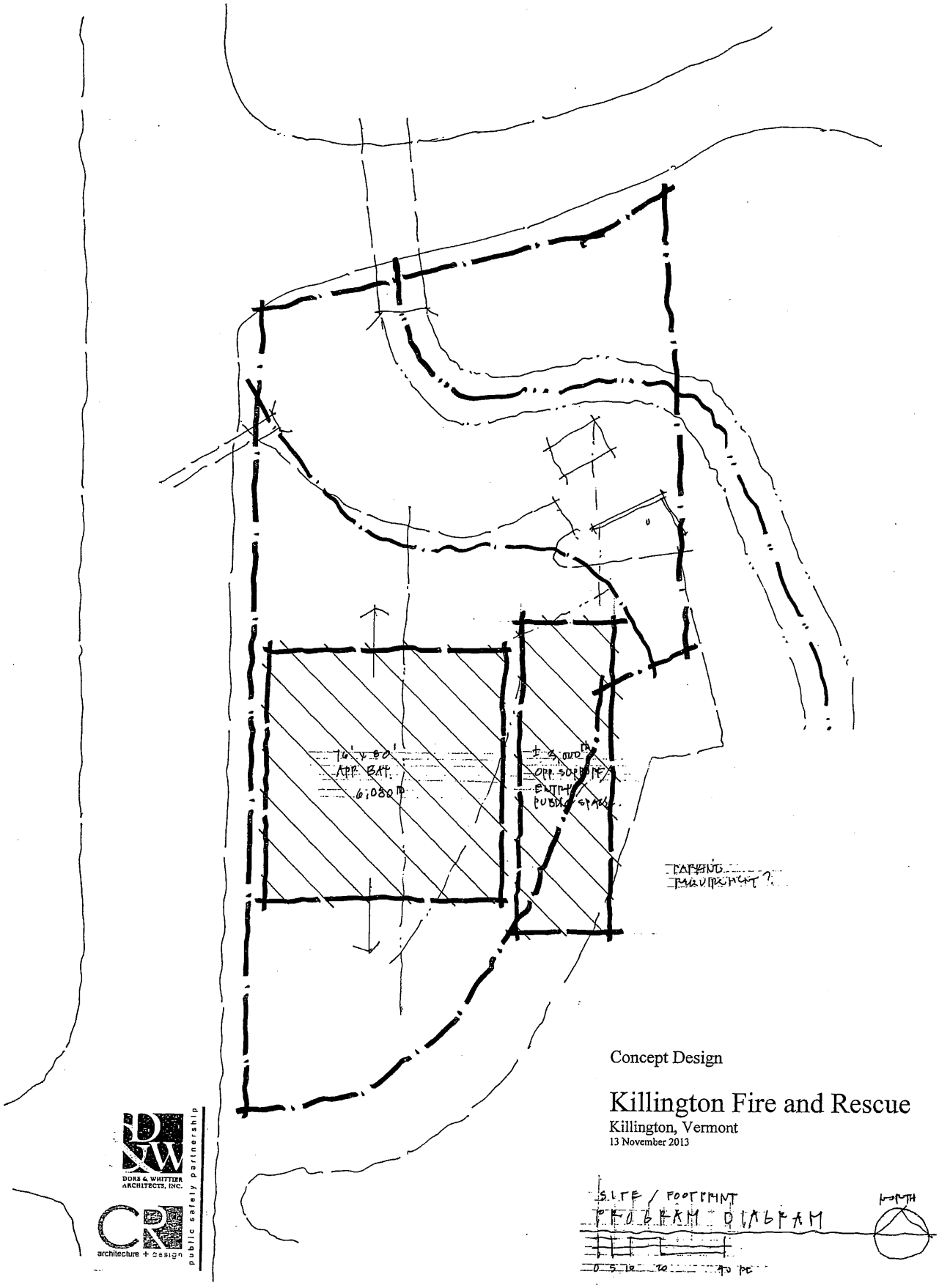


Concept Design

Killington Fire and Rescue

Killington, Vermont

13 November 2013



Concept Design

Killington Fire and Rescue

Killington, Vermont

13 November 2013

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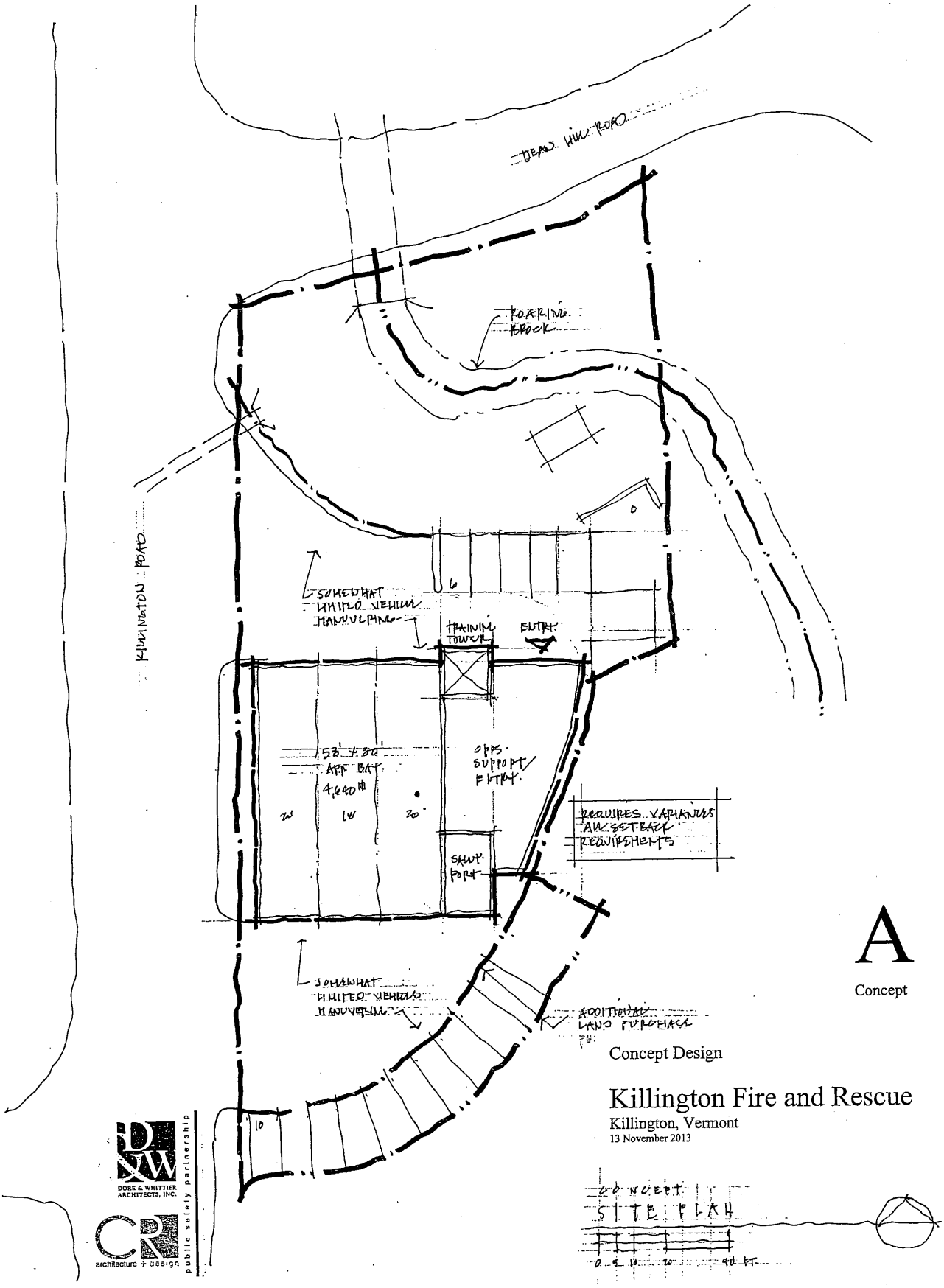
CR architecture + design

public safety partnership



A

Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

13 November 2013

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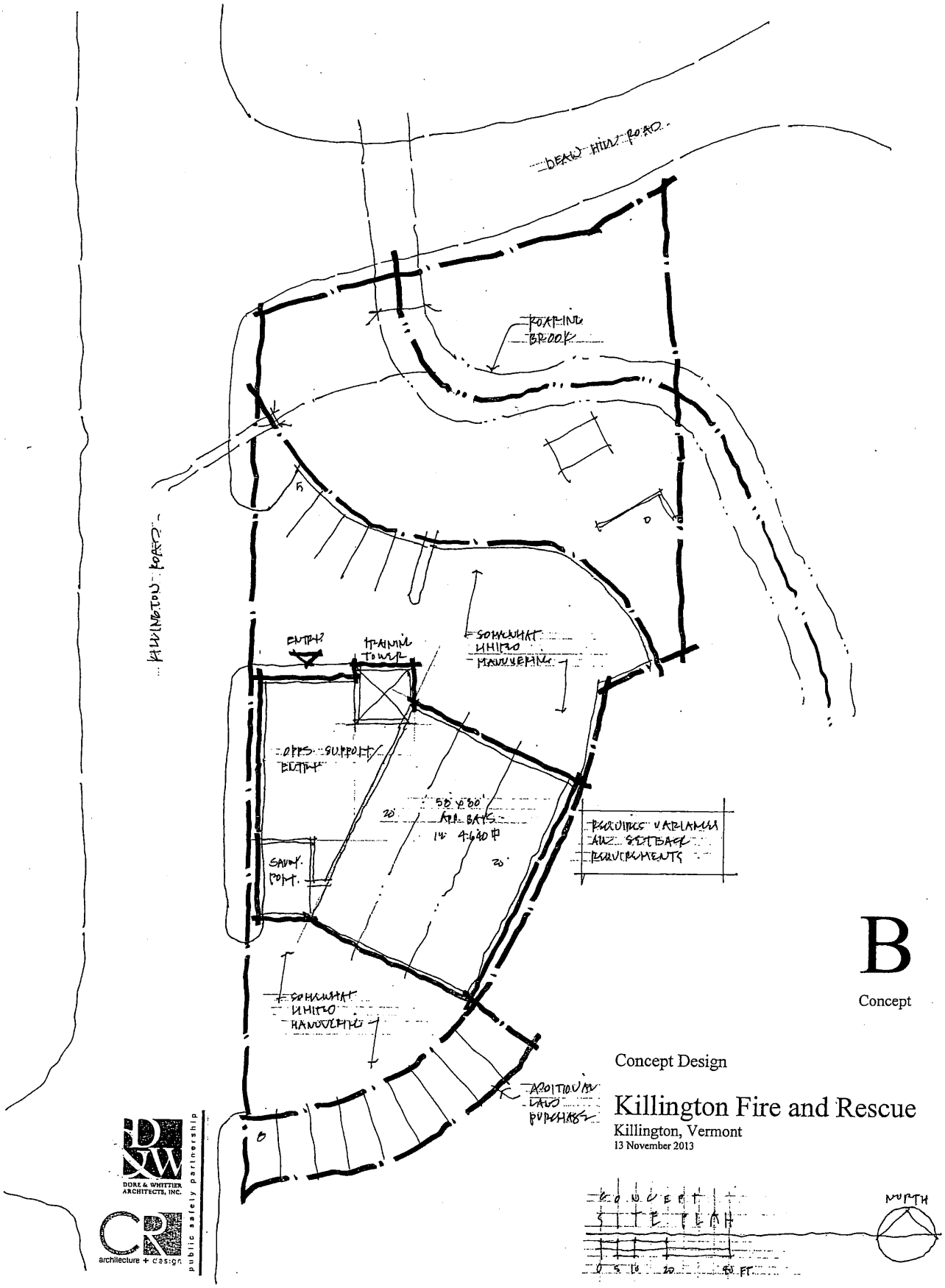

B

Concept

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Killington Fire and Rescue

Killington, Vermont

13 November 2013

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DORE & WHITTIER
ARCHITECTS, INC.

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Newburyport, MA 01950
(P) 978.499.2999
(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 4 December 2013

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Robert Montgomery (RM)	Killington Police Department (KPD)
Zach Zettler (ZZ)	CR Architecture + Design (CRA) via phone
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
David Ross (DR)	CR Architecture + Design (CRA) via phone
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team presented a revised existing site plan sketch and four conceptual site plans sketches – Concepts C, D, E, and F.

2. The existing plan shows a partial area of the Durkee property delineating an area that would be utilized for the various concepts. It also indicates location of the property line as well as the edge of pavement.

3. An assumed 50 foot buffer from the top of the Roaring Brook bank is shown in all the concepts. The buffer requirement must be verified. SF, who talked with Todd Menees at ANR, thought the 50 foot buffer may is not required and we could build up to the current edge of pavement or disturbed site. The Design Team, through Engineering Ventures (Civil Engineer), will contact and verify with Todd Menees.

4. Concept C was presented. It is very similar to the previous Concepts A and B. It is three stories high and has three Apparatus Bays.

5. Concept D is also three stories high but has four Apparatus Bays. This concept is closest to the requested Program. The building is moved farther down to the south on the site.

6. Concept E is based on the Chief's ideas. It is also three stories high. The concept shows a 5 bay drive through. The Apparatus Bays are 60 feet long. It is located very close to Killington Road. The

existing Apparatus Bays that open onto Killington Road are approximately 10 back for the edge of the road. Although not great, the apparatus can exit out of the station. The driver's sight line is adequate.

7. All the above Concepts include approximately 3000 SF programming space for Admin space on the first floor. The rest of the space shown is Apparatus Bays.

8. Concept F is the existing building renovated with additions. There are many issues involved with this concept including possible higher cost that new construction. The Site plan seems to be more cramped than the concepts with the three stories new construction.

9. All the Concepts will eventually have a list of pros and cons narratives.

10. All the Concepts must be verified and tested further based on turning radius of the trucks (especially the Tower).

11. GR is wondering why the property is being used for maneuvering and turning when Killington Road could be used. They do not have any problems backing into the bays.

12. The FD would rather have a two story facility if possible.

13. The Design Team will further review how Apparatus Bays can be stacked to help determine required bay lengths.

14. The Committee preferred Concepts D and E. The Design Team will investigate further.

Next Steps

15. CRA still needs additional information on the Tower including the angle of the turn, wheel base and manufacturer, make and model.

16. D&W will reach out to Engineering Ventures and Todd Menees at ANR for further clarification of the allowable construction from the stream bank.

17. Next Meeting is scheduled for **12-18-13 at 6:00 pm at the Fire Station**; revised conceptual site/footprint plans will be reviewed.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Existing Site Plan Sketch dated 12-4-13
Concept Site Plans C, D, E, F dated 12-4-13

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
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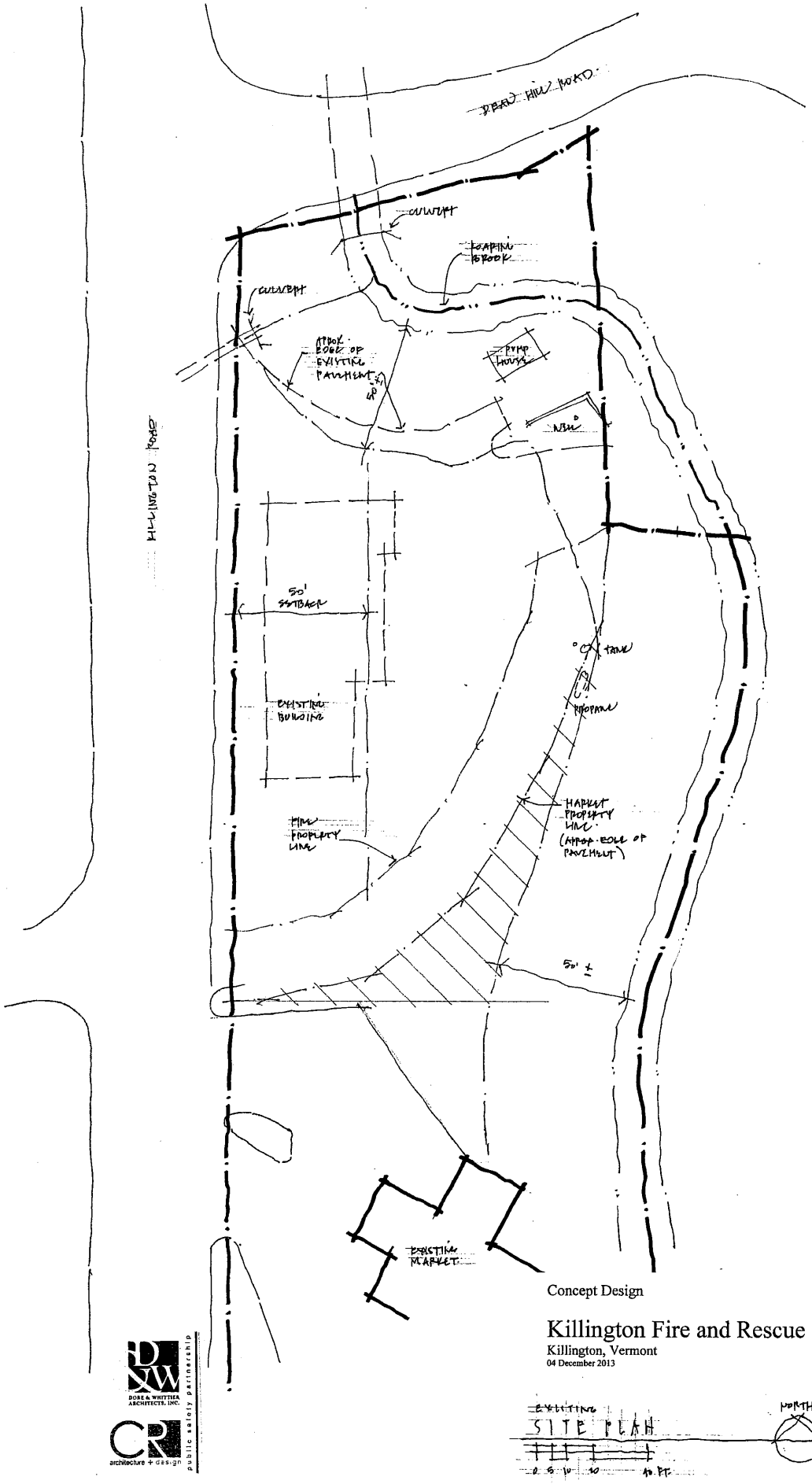

Concept Design

Killington Fire and Rescue

Killington, Vermont

04 December 2013

EXISTING SITE PLAN

NORTH

0 5 10 20 40 FT.

DORE & WHITTIER ARCHITECTS, INC.

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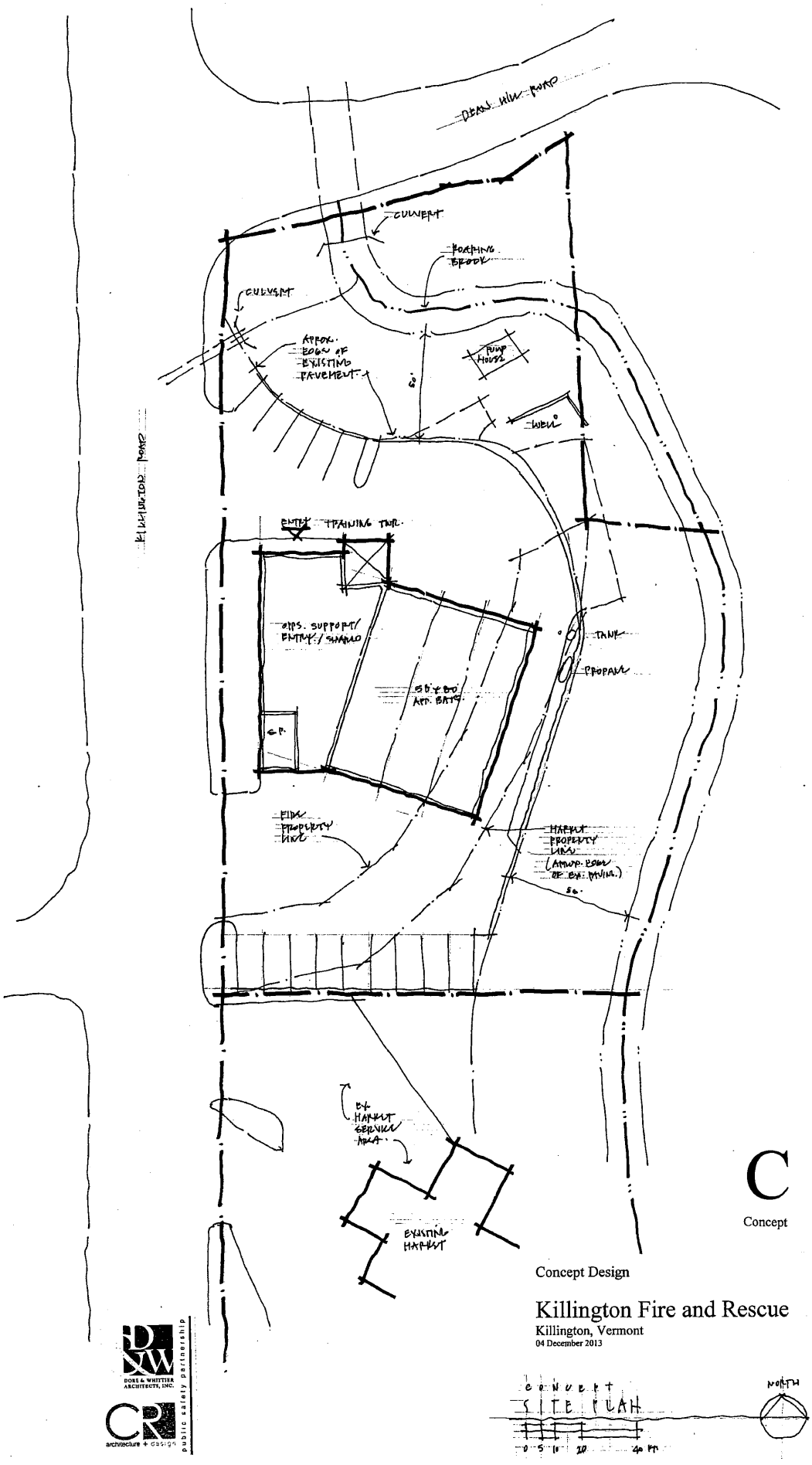

C

Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

04 December 2013

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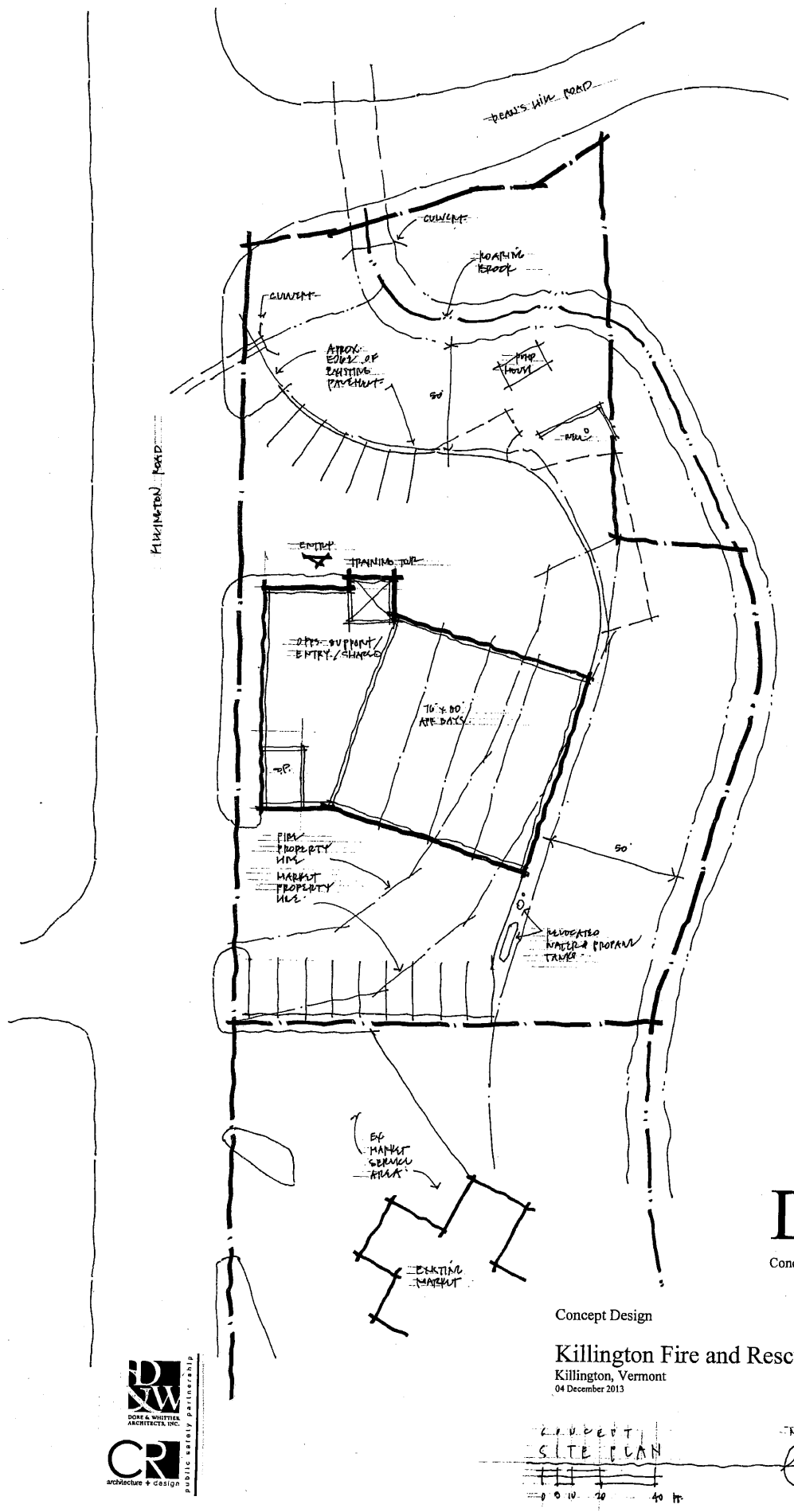
public safety partnership



D

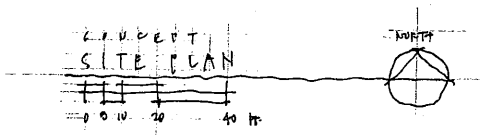
Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

04 December 2013



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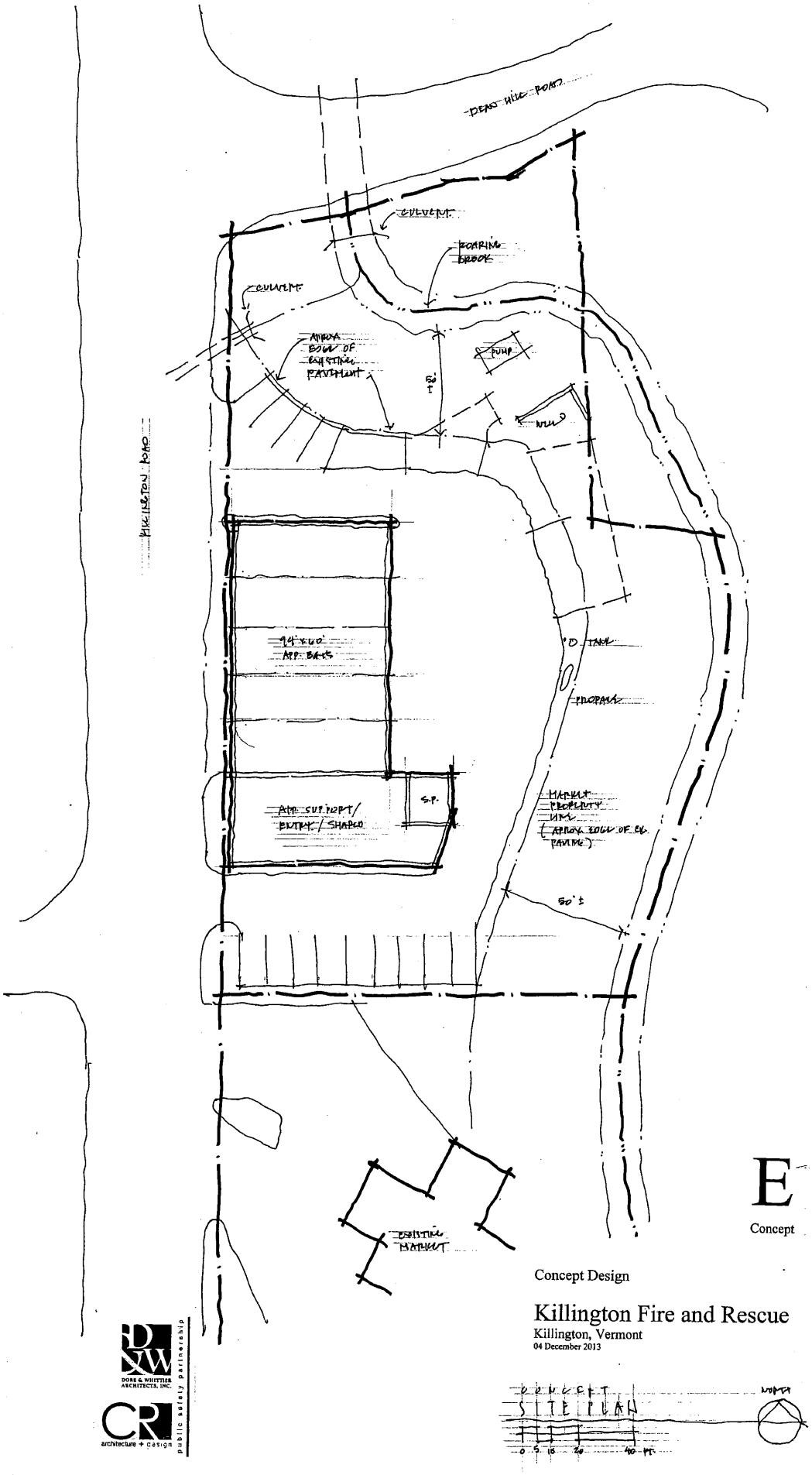

Concept Design

Killington Fire and Rescue

Killington, Vermont

04 December 2013

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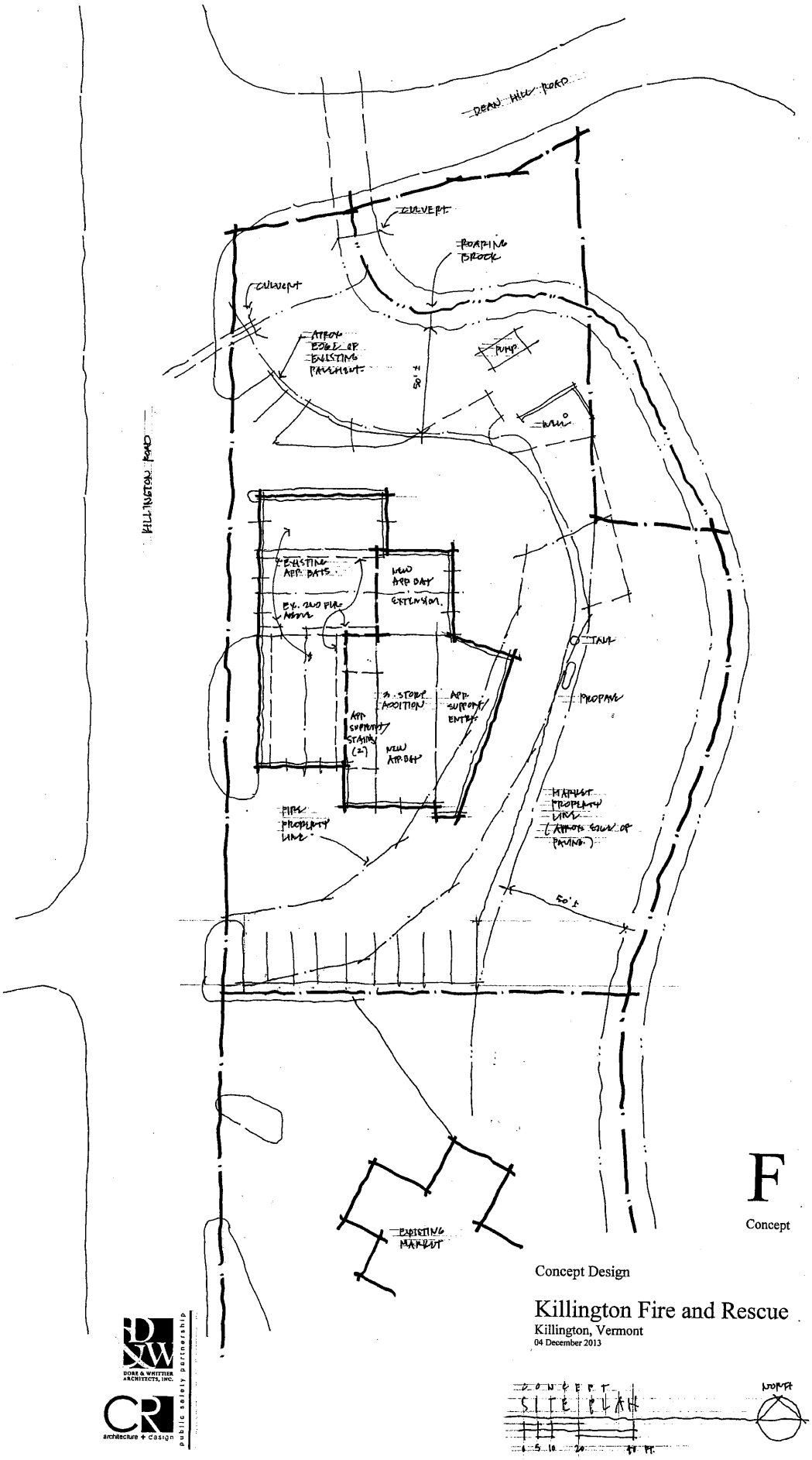

F

Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

04 December 2013

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

public solely partnership

CONCEPT SITE PLAN

NORTH

0 5 10 20 40 ft.

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

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Newburyport, MA 01950
(P) 978.499.2999
(F) 978.499.2944

DATE OF MEETING: 18 December 2013

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
David Ross (DR)	CR Architecture + Design (CRA) via phone
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team presented a revised existing site plan sketch and two conceptual site plans Concepts G and H. An Apparatus Bay layout was also presented.

2. The existing plan continues to show partial area of the Durkee property delineating an area that would be utilized for the various concepts. It also indicates location of the property line as well as the an assumed 15 foot setback from the approximate edge of the Roaring Brook Bank

3. It was confirmed in a previous email that Todd Menees from ANR agreed with Kevin Worden at Engineering Ventures that we could look at using up to the edge of paving/gravel (in other words, edge of disturbed soil). At this point, an assumed distance of 15 feet will be used until additional information is rec'd. from the scheduled site survey.

4. The Town is having the fire station site and the northern portion of the Durkee Property surveyed. This work should be completed by the end of the year. Once the Town has the completed survey, they will send a copy to D&W who will then relay it over to CRA. The Design Team will need a copy in AutoCAD so any proposed schemes can be overlaid over the plan.

5. The Committee had no comments on the Apparatus Bays layout. These bays allow for up to seven Apparatus. The final configuration will depend on site and building design.

6. Site Concept H has the building located far to the south end of the site and consists of having all the Apparatus Bays open onto Killington Road. The Police and shared spaces are to the north of the Apparatus Bays. The plan allows for returning apparatus to enter the bays from the brook side and allow for the apparatus to drive through. This plan was well received but the Committee would rather have the building pushed as far to the north and revise the plan to have Police and shared spaces to the south end. The Design Team will look at this change.

7. Site Concept G was a Tee shape which has the first response Apparatus exiting onto Killington Road and the secondary response apparatus exiting onto the rear of the site and circle around to exit onto Killington Road. The Committee was not convinced that the apparatus could maneuver around the

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site. There was also concern for line of site with the Training Tower right on the property line facing Killington Road. The Committee agreed that the scheme should be further developed.

8. Concept G has more opportunities for architectural design than Concept H. Both concepts will require a three story building.

9. The Committee had concerns for both schemes with regards to snow removal. The Committee said they may have banks as high as 10 feet high on the existing site and at times snow must be removed from the site.

Next Steps

10. Once the Design Team has received a copy of the site survey, they will overlay Concept Site Plans G and H and ascertain if they still work. Once a final site concept has been established, the Design Team will start preparing conceptual floor plans.

11. Next Meeting is scheduled for **1-22-14 at 6:00 pm at the Fire Station**; revised conceptual site/footprint plans will be reviewed.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Existing Site Plan Sketch dated 12-18-13
Concept Site Plans G and H dated 12-18-13

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
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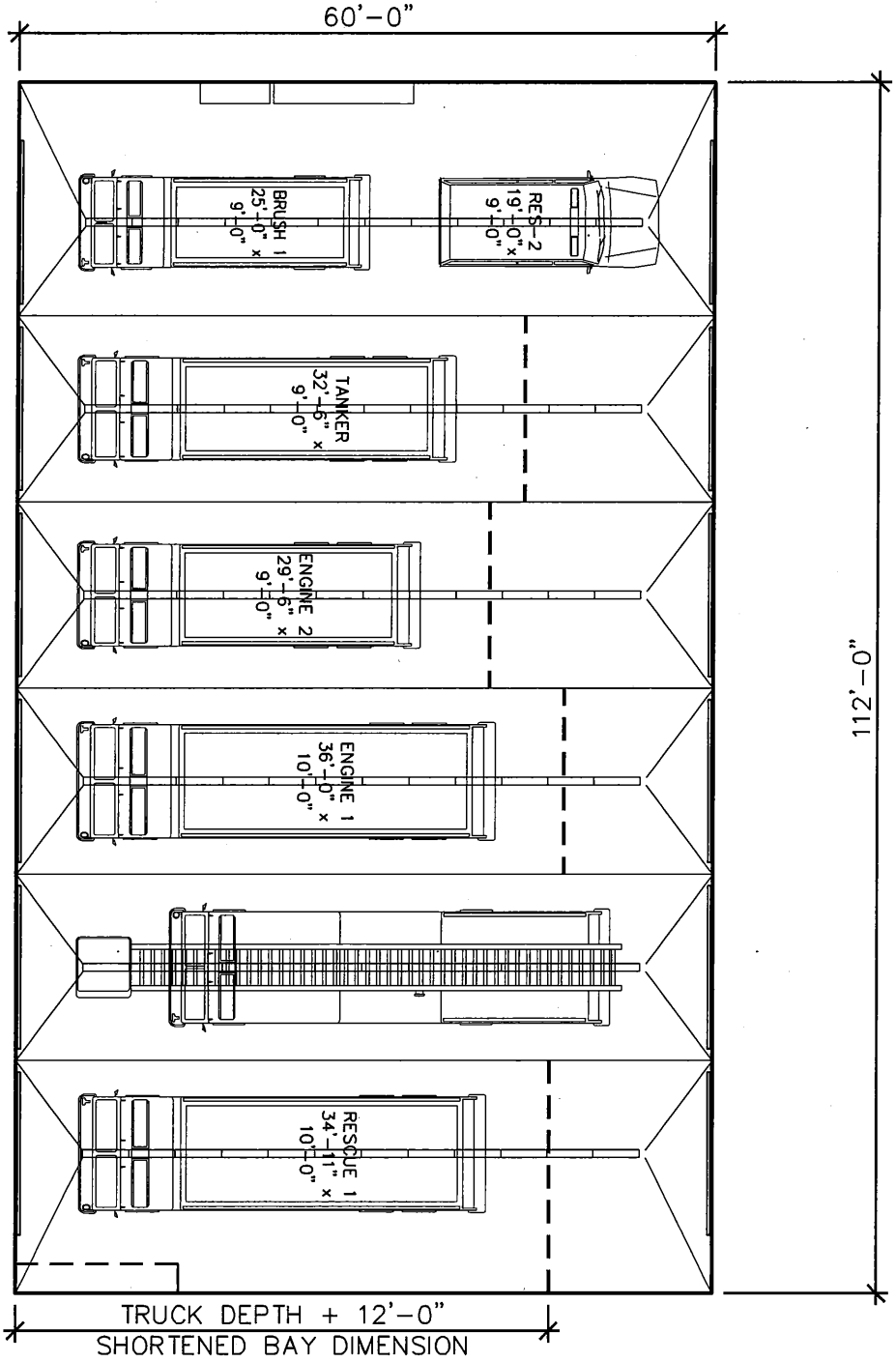
	DMW/LPD/File	



6 BAYS - 6,240 SF

APPARATUS BAYS

SCALE: 1/16"=1'-0"

architecture + design

DORE & WHITTIER ARCHITECTS, INC.

PROJECT TITLE

KILLINGTON POLICE / FIRE STATION

COMMISSION NO.

900414.01

DATE

NOVEMBER 13, 2013

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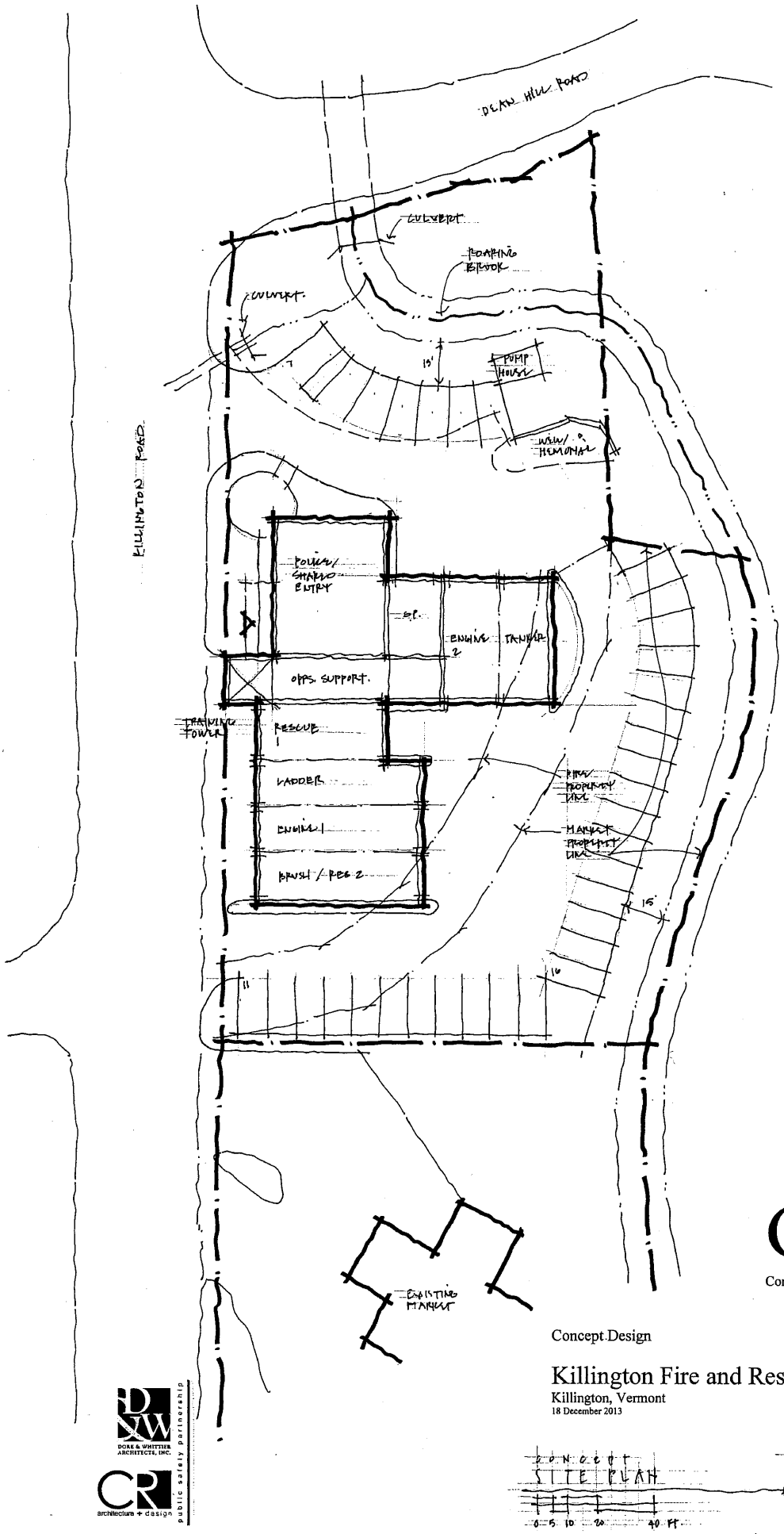
Plotted: Wednesday, December 18, 2013 11:40:12 AM



G

Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

18 December 2013

DORE & WHITTIER ARCHITECTS, INC.

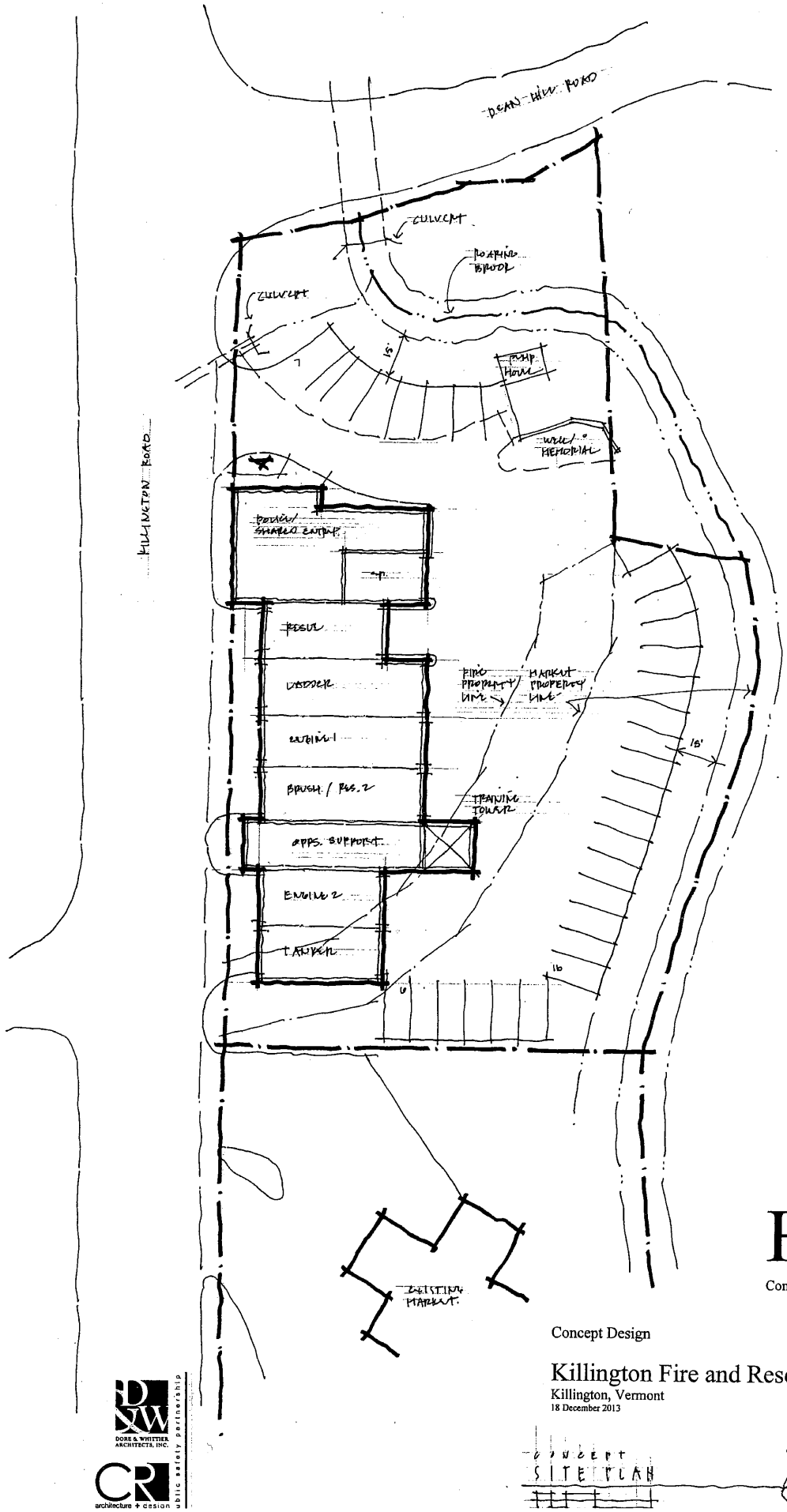
CR architecture + design

public safety partnership

CONCEPT SITE PLAN

0 5 10 20 40 FT

NORTH



H

Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

18 December 2013

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

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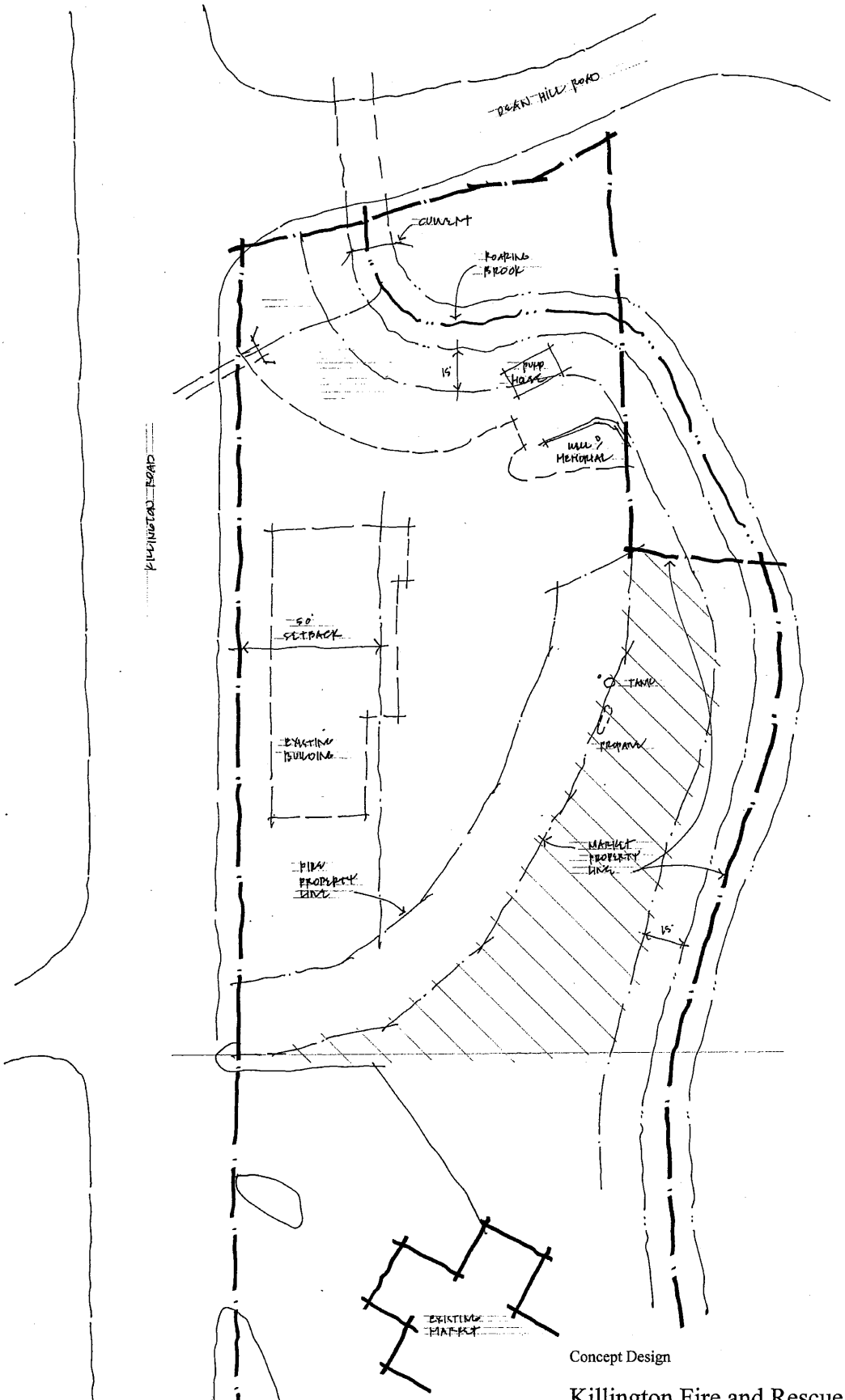
Concept SITE PLAN

NORTH



Concept Design

Killington Fire and Rescue

Killington, Vermont

18 December 2013

DORR & WHITTIER ARCHITECTS, INC.

CR architecture + design

public safety partnership

EXISTING SITE PLAN

NORTH

0 5 10 20 40 FT

DORE & WHITTIER
ARCHITECTS, INC.

ARCHITECTS
PROJECT MANAGERS

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(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 22 January 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Robert Montgomery (RM)	Killington Police Department (KPD)
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
David Ross (DR)	CR Architecture + Design (CRA) via phone
Zach Zettler (ZZ)	CR Architecture + Design (CRA) via phone
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Town completed a site survey of the existing Fire Department property as well as the northern portion of the Durkee property. The revised site plan is based on this survey.

2. The Design Team presented a revised existing site plan sketch and one conceptual site plan Concept I. The existing site plan indicates the line of disturbance. This line was determined from conversations between ANR and Engineering Ventures. The plan also shows property lines, top of bank and existing utilities.

3. The existing plan continues to show partial area of the Durkee property delineating an area that would be utilized for Concept I.

4. Concept I was reviewed. The concept is lineal and aligns approximately where the front of the existing Fire Station is. The building is pushed as far up to the north as possible. Public entry is to the south end. Public parking is at the south end with first responders and police vehicle located along the east side. There is only one access lane for Apparatus and other vehicles.
    a. The First Floor consists of Apparatus Bays, Police Booking and support as well as the main entrance to the Fire Station
    b. There would be partial second floor over the administration and public entrance area for both Police and Fire
    c. The upper floor would be over on top of the Apparatus Bays which would be primarily for Fire.

5. All agreed that Concept I is the preferred option and seems to work the best on the site.

6. The Committee would like the Design Team to explore ways of gaining additional space on the site to allow for a driving lane to the north side. The following will be looked at ASAP so the Design Team can prepare conceptual bubble diagrams for the Fire Station:

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a. D& W and EVI will talk with Todd Menees about moving parking closer to the brook, past the line of disturbance.
b. EVI will model the turning radius of the various Apparatus to make sure they fit on the site. Additional information may be needed from the Fire Department.
c. SW will review with ZBA to get a feel from them for granting variances on the zoning setbacks
d. SF will show Durkee the latest site plan to see if any additional property could be purchased from him.

7. There are 23 parking spaces currently shown. 5 spaces would be required for Police. 37 spaces were originally requested. The Fire Department might be OK with this but would like to look at gaining additional spaces if possible..

Next Steps

8. Once the previous items are addressed (see above), the Design Team will prepare conceptual bubble diagrams to help determine adjacencies for various rooms.

9. Next Meeting is scheduled for **2-12-14 at 6:00 pm at the Fire Station.**

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

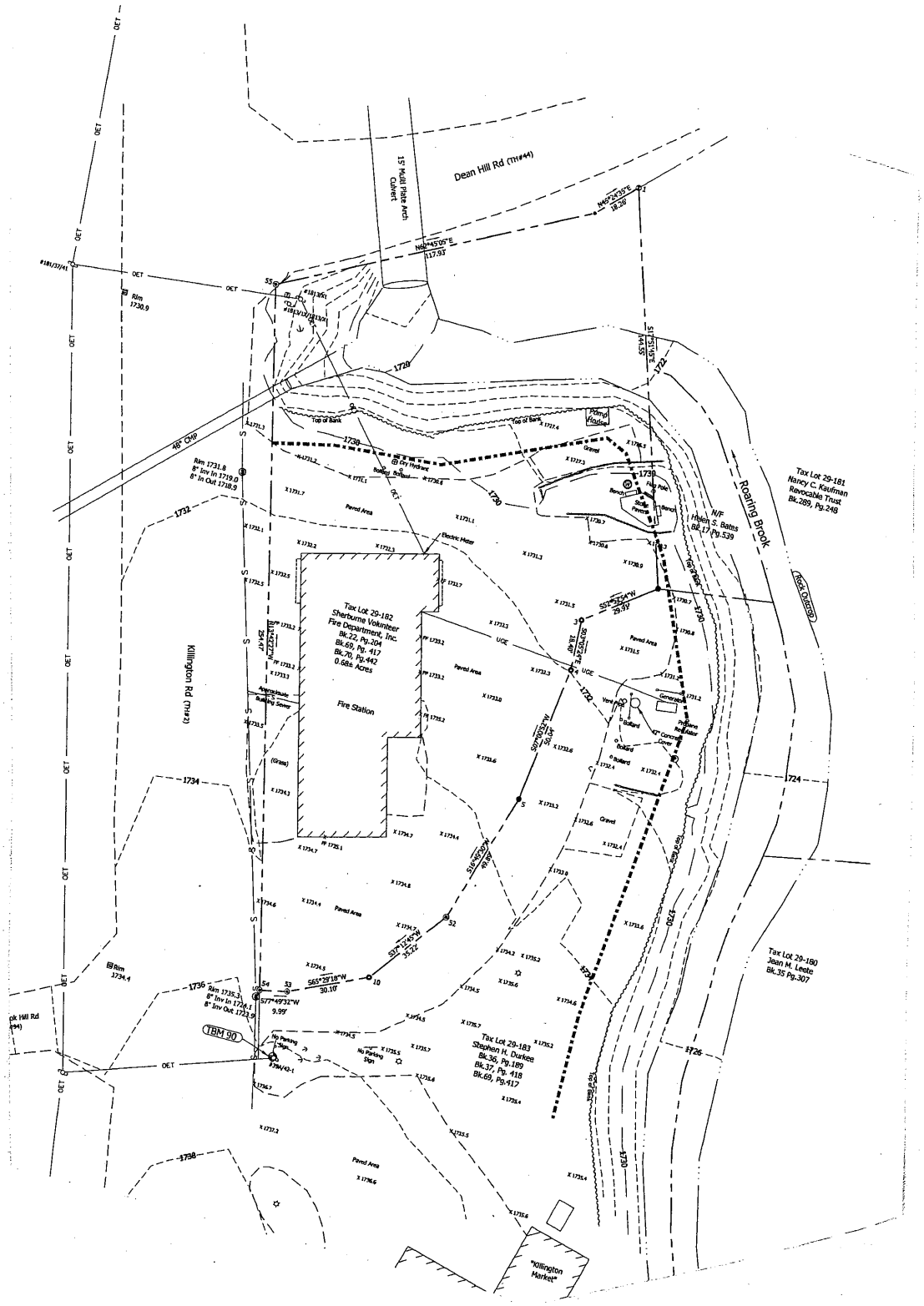
Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Existing Site Plan Sketch dated 1-22-14
Concept Site Plan I dated 1-22-14

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	



Concept Design

Killington Fire and Rescue

Killington, Vermont

22 January 2014

DORE & WHITTIER ARCHITECTS, INC.

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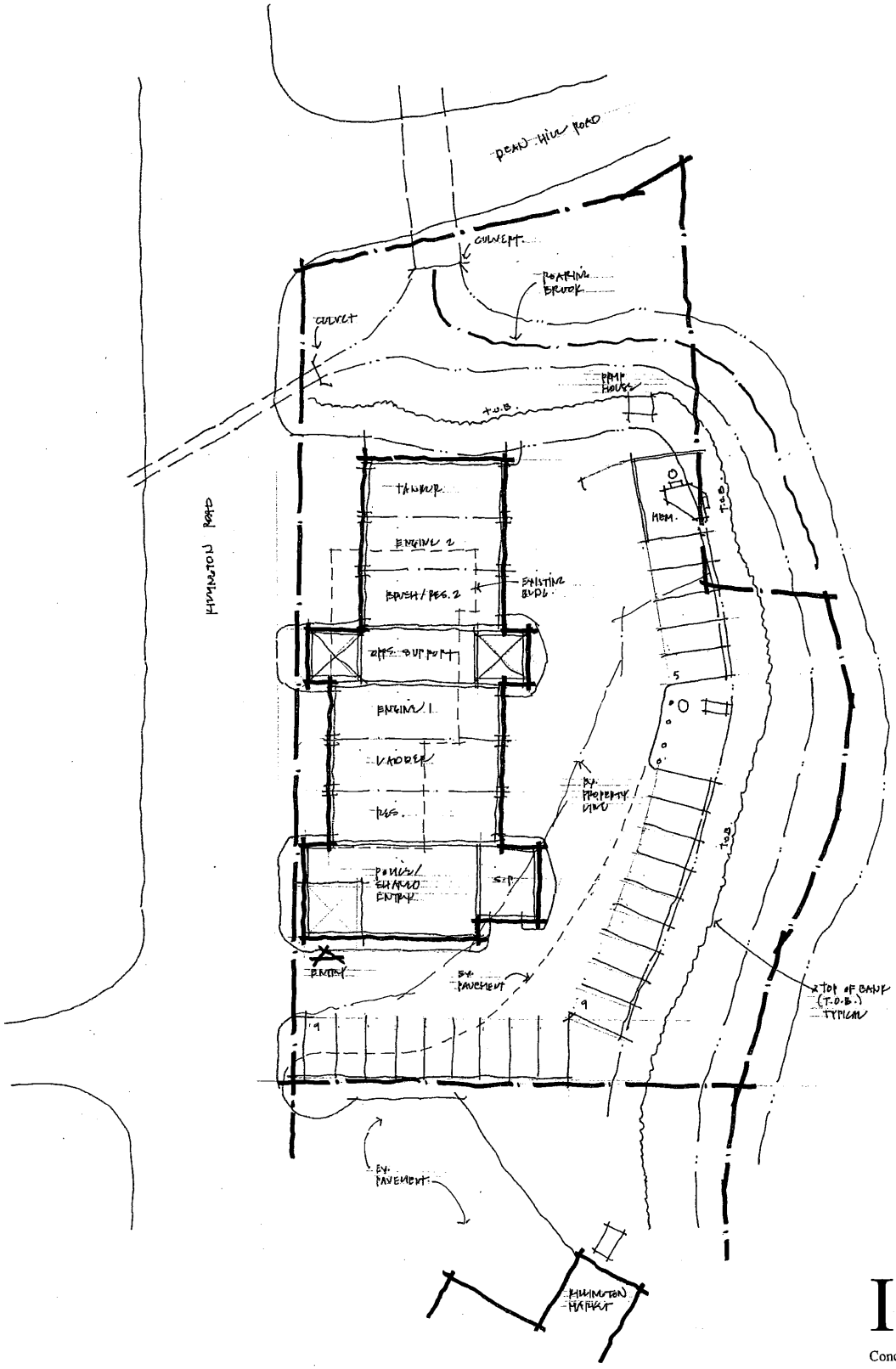
EXISTING SITE PLAN

0 5 10 20 40 ft



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Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

22 January 2014

DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

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CONCEPT SITE PLAN

NORTH

0 5 10 20 40 FT.

DORE & WHITTIER
ARCHITECTS, INC.

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Newburyport, MA 01950
(P) 978.499.2999
(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 12 February 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
David Ross (DR)	CR Architecture + Design (CRA) via phone
Donald Walter (DW)	Dore & Whittier Architects, Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team reviewed Concept I – New Facility. This plan indicates how the spaces could be laid out and is not a detailed floor plan. This concept plan is based on the same Concept I as it was laid out on the existing site (presented at the previous meeting). The following items were noted:
    a. The south end is the Main Public Entrance. This includes a small Lobby and elevator to bring visitors up the Police Administration (second floor)and Fire Administration /Living Spaces (third floor). This assumes that there would be little contact with the public. The BC thought there should be a control point at the first floor especially if in the future the Town may be self dispatching.
    b. Police are primarily located on the first and second floor. A separate area located between the Apparatus Bays would be for storage and training for the fire department.
    c. A sallyport is also located on the first floor which brings suspects into an enclosed garage area and through a secure vestibule into the Booking Area.
    d. The entire third floor is Fire Administration and Living Spaces
    e. The Total area is approximately 24,000 SF

2. The Design Team reviewed Concept F – the Addition and Renovation scheme. This plan attempts to come as close as possible to the Program. The following items were noted:
    a. Existing Apparatus Bays 5 and 6 can only fit smaller Apparatus (ie Brush and Rescue 2)
    b. There are not enough correctly sized Apparatus bays
    c. This Concept uses up approximately the same amount of space on site as Concept I

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d. Design Team to look at demolishing Bays 5 and 6 and redesign properly sized new bays. Bays 3 and 4 would be extended, Bay 2 would remain the same for the Tower, and Bay 1 would be a new Bay for the Tanker or Engine 2.
e. This Concept is approximately 21,000 SF

3. The Building Committee would like to look ways at reducing the Program. The Design Team will prepare revised Space Needs Analysis showing columns for priorities for every space. The Fire Department will assign priorities to each room. Some ideas at reducing the size of Program include:
   a. Eliminate the Dorms
   b. Eliminate Hospitality or include Hospitality within the Training Room
   c. Eliminate the Conference Room. Use Training Room for conferences
   d. Eliminate one of the Gender Neutral Toilet/Showers

4. AB reviewed emails rec'd. between Todd Menees at ANR and Engineering Ventures. A response will be forthcoming from Todd shortly.

5. There is no update on discussions with Durkee, the adjacent land owner.

6. GR submitted some additional information on the Apparatus. AB will send to Engineering Ventures to see if this information is enough to model apparatus on the site.

7. There is no update on creation or adoption of Town of Killington design standards

Next Steps

8. Look at a reduced program. Revise Conceptual Plans. Verify Apparatus will work on site.

9. Next Meeting is scheduled for **3-5-14 at 6:00 pm at the Fire Station. If not then 3-12-14 at 6:00 pm at the Fire Station.**

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Agenda dated 2-12-14
Concept Design F – Renovation and Addition dated 5 February 2014
Concept Design I dated 5 February 2014

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	David Gouchberg	Killington Fire Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	

DORE & WHITTIER
ARCHITECTS, INC.

Meeting Agenda

February 12, 2014
6:00 pm
Killington Fire Station
Killington, VT
Design Review

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1. Review Renovation and Addition Conceptual Plan (Concept F)
2. Review New Facility Conceptual Plan (Concept I)
3. Review draft Assessments
    a. Architectural
    b. Civil
    c. Structural
    d. Mechanical
    e. Electrical
4. Review status of ANR correspondence
5. Status of Discussions with Durkee (adjacent land Owner)
6. Status of Apparatus dimensions
7. Status of adoption of Town design standards
8. Next Steps/Schedule
    a. Next Scheduled Meeting is 2-26-14 at 6:00 pm – to finalize Conceptual plans
    b. Subsequent meetings scheduled with Building Committee - 3-12-14 and 3-26-14

ARCHITECTS
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Newburyport, MA 01950
260 Merrimac St. Bldg. 7
Phone: 978.499.2999
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South Burlington, VT 05403
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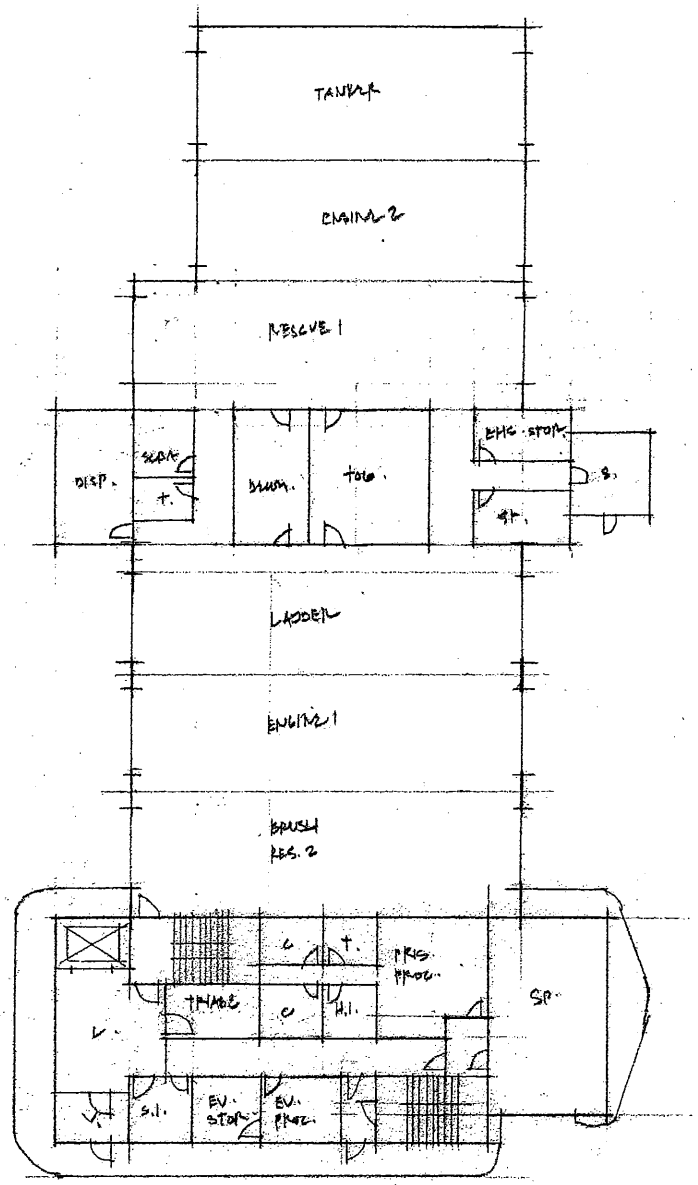

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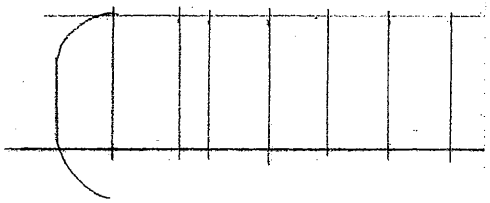
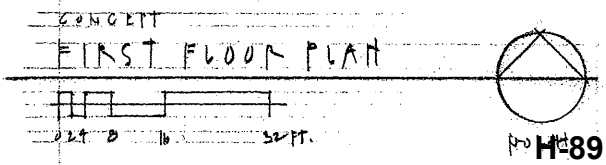


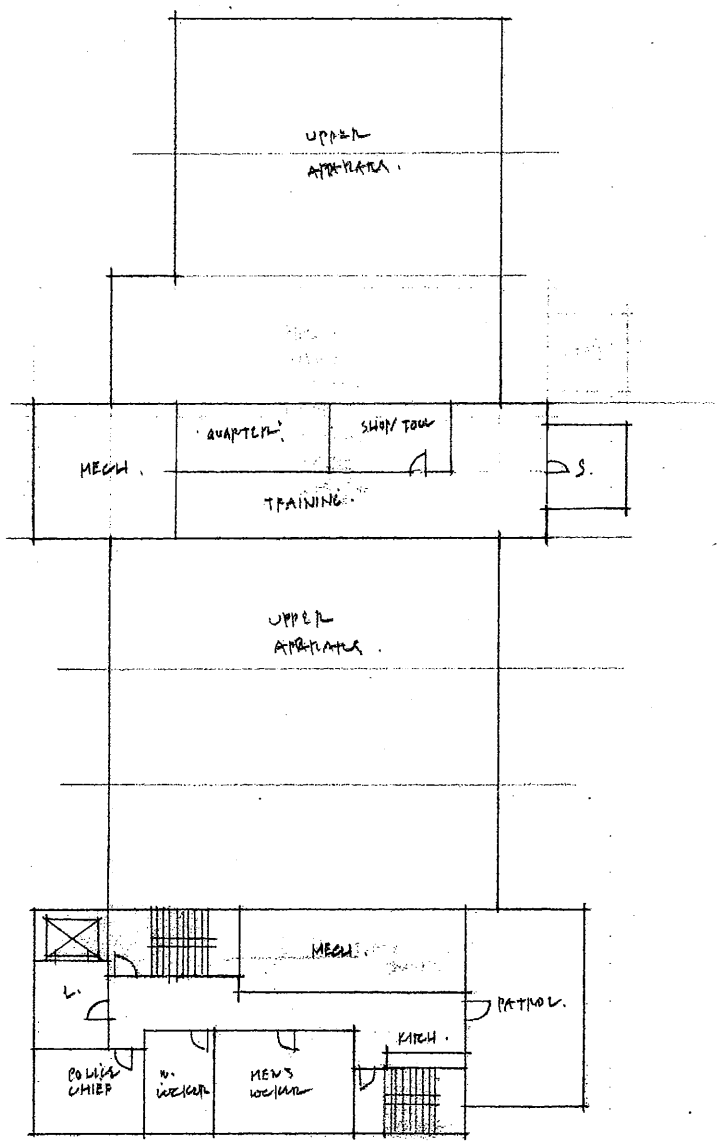
Concept Design

Killington Fire and Rescue

Killington, Vermont

05 February 2014





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Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

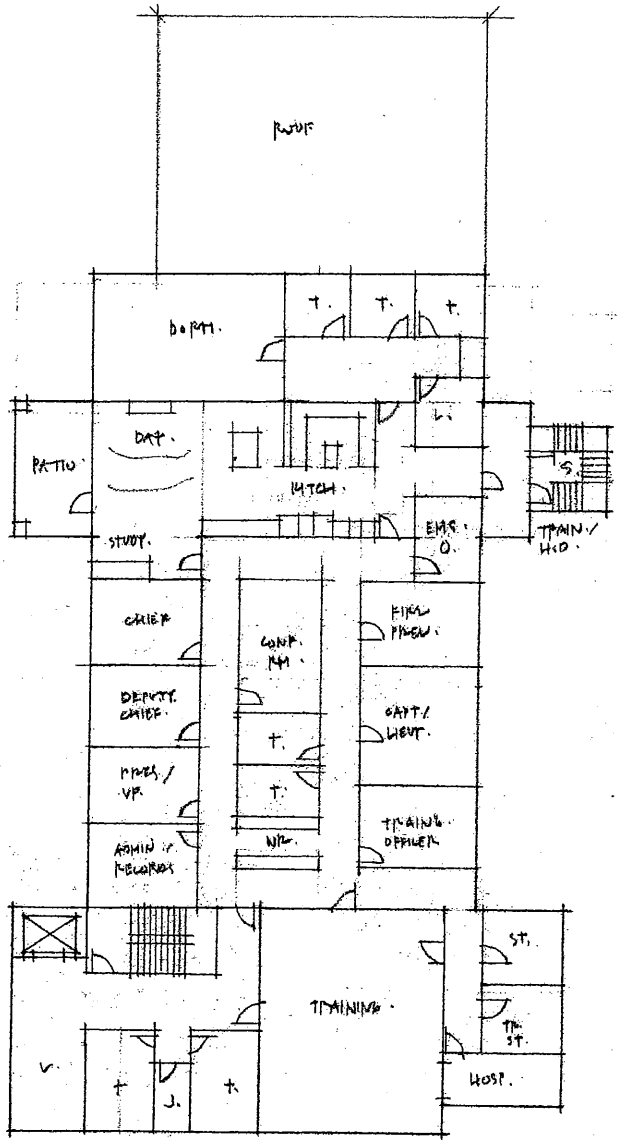
05 February 2014

CONCEPT

SECOND FLOOR PLAN

0 2 4 8 16 32FT.

NORTH



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Concept Design

Killington Fire and Rescue

Killington, Vermont

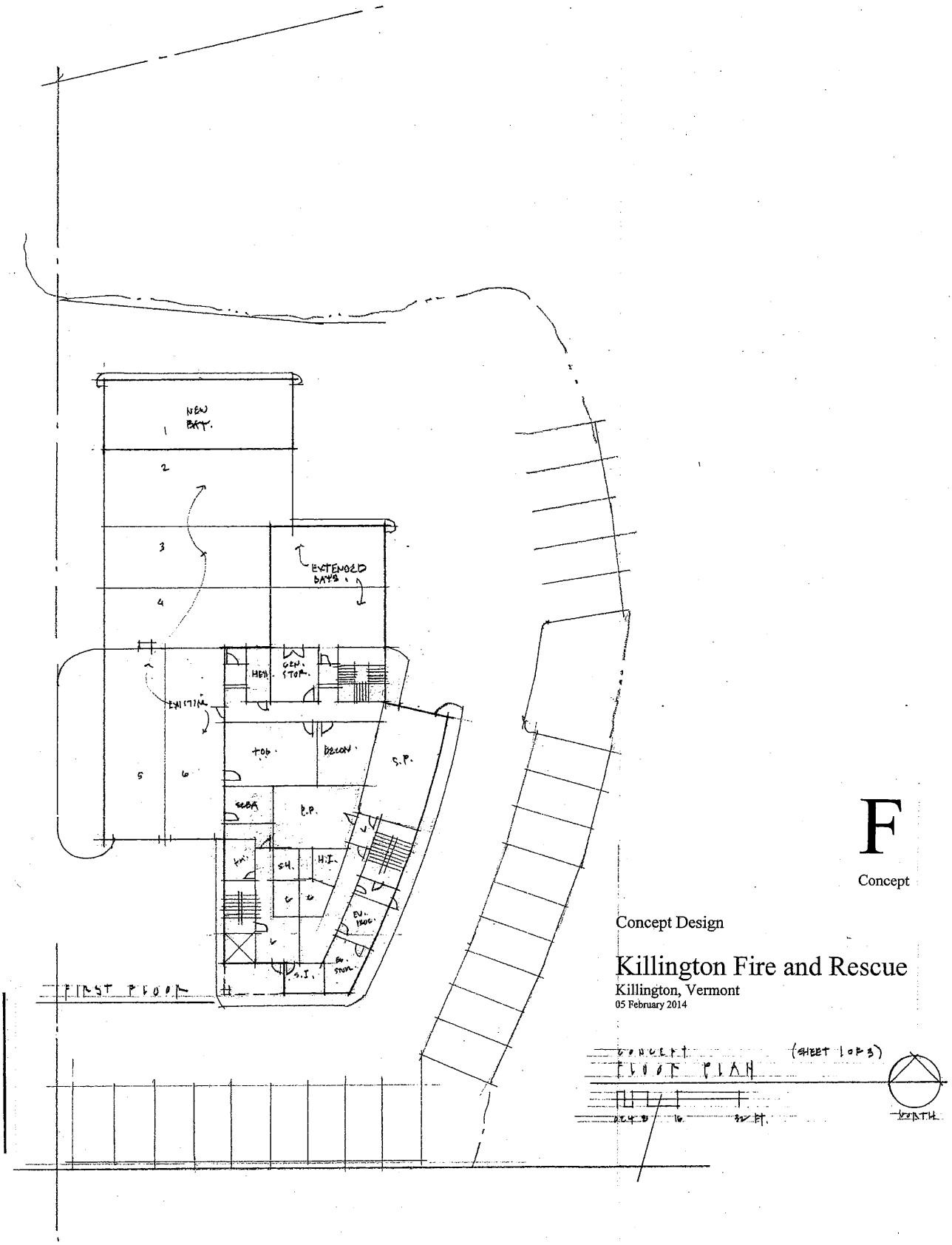
05 February 2014

CONCEPT

THIRD FLOOR PLAN

SCALE: 1/16" = 1'-0"

No. H-91



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Concept

Concept Design

Killington Fire and Rescue

Killington, Vermont

05 February 2014

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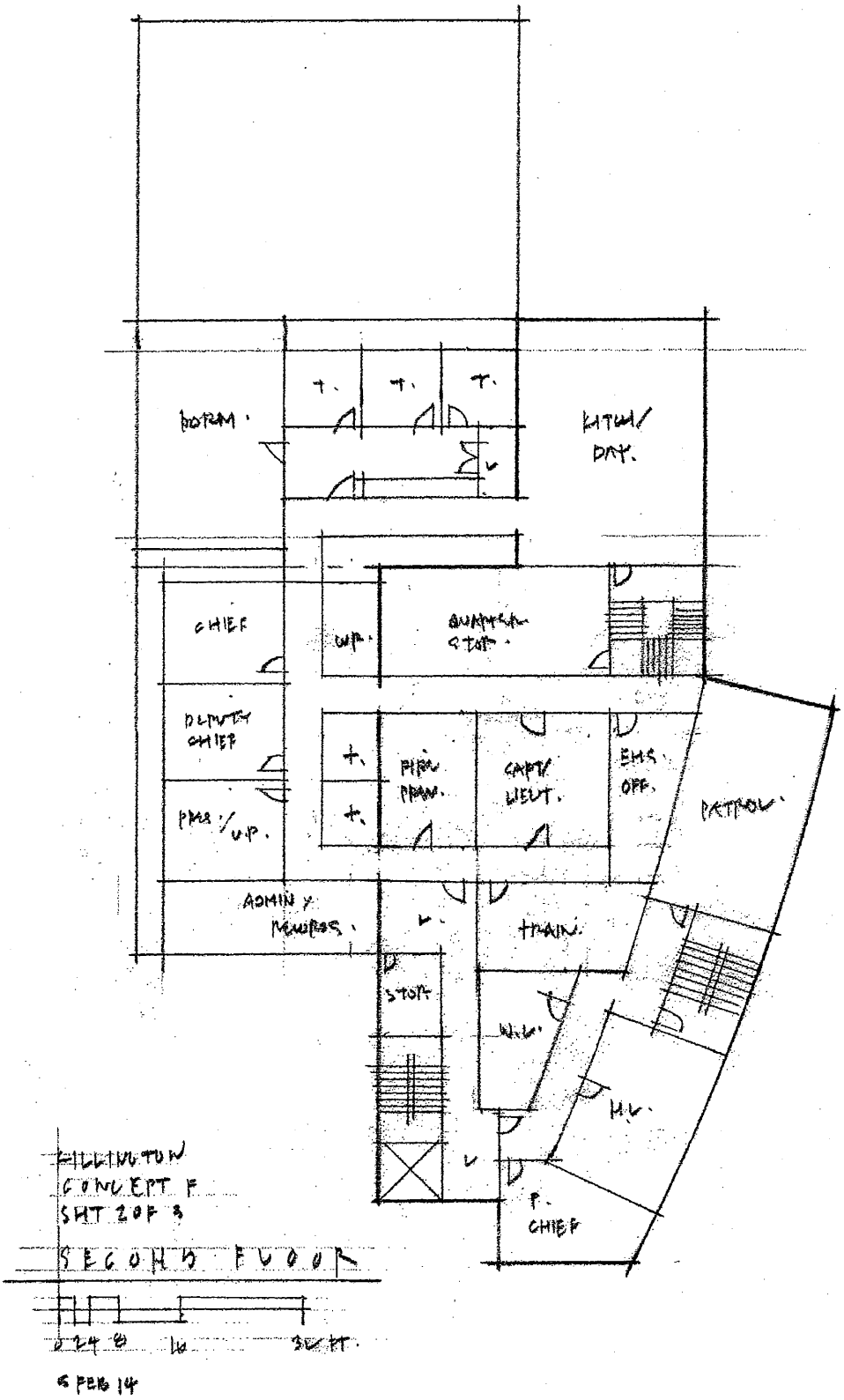
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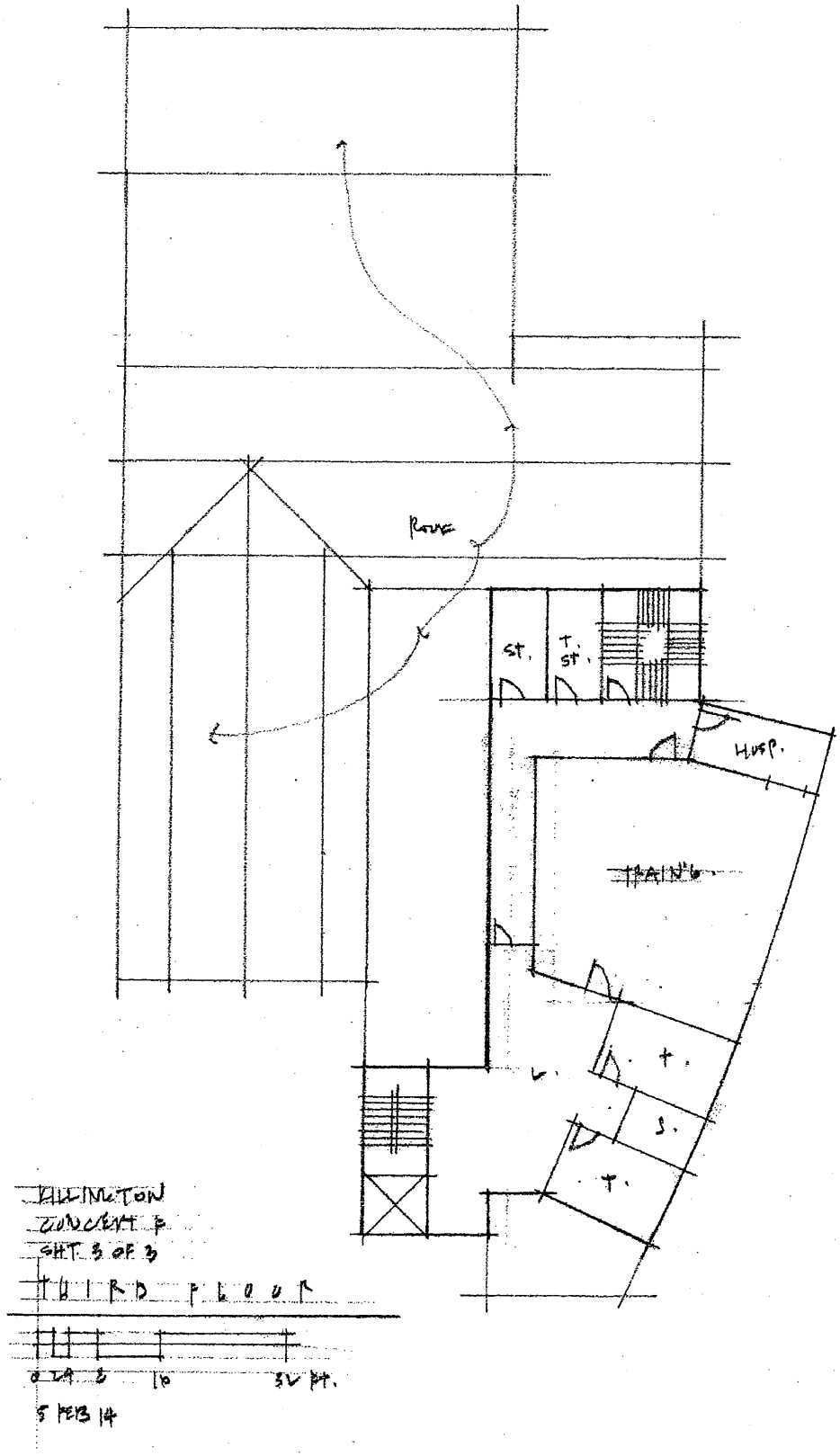
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5 FEB 14

DORE & WHITTIER
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(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 26 March 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Matt Murtha (MM)	CR Architecture + Design (CRA) via phone
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. MM and AB reviewed the revised 15 year and 50 year Space Needs Analysis which reflects the priorities determined by the fire department.
    a. First column is the requested program
    b. Second column is the recommended program from the Design team on 11-13-14
    c. The rest of the columns are high, medium, and low priorities

2. The Committee felt that the 15 year Priority Space needs is the only one that should be looked at moving forward.

3. There has been approximately a 20% cut in the program since the last version.

4. The Priority Space Needs does not include the Police Department which the design team never rec'd a list from the Town. The Town will get from the Police Department. This information will be added back onto the Space Needs Analysis. It looks like it will be around 2,000 to 3,000 SF on top of the Fire space needs requirements.

5. The Committee agreed that the all Apparatus bays should be 60 foot long. This will just be long enough for Tower 1. They also want to stay with six bays which will accommodate 7 apparatus. Brush and Rescue 2 will be housed in a single bay.

6. It was agreed that the program moving forward shall be the high priority spaces along with the high priorities spaces determined by the Police. This would make the total area of between 19,000 SF to 20,000 SF.

7. The BC agreed that the high priority space needs for both Fire and Police is as low as the program can go. The Town does not have a predetermined budget for the Project. They agreed to move forward to the next phases in order to find out what the cost for a new fire station will be. AB

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mentioned that the Design Team will be developing not only construction costs, but will also help develop other Project costs including soft costs (ie permits, A&E fees, furnishings and equipment, etc.). The Town will have to determine land acquisition costs.

8. The Design Team will look at ways to reduce the footprint of the building by moving more of the Police spaces and Fire spaces (ie storage, EMS storage) to the second floor. By reducing the footprint, there would be better access for Apparatus entering back onto the site. The FD wants to keep the TOG room on the first floor if possible.

9. The Fire department will be looking at options for future growth. An idea thrown out was to purchase the residential/apartment building across the street to house full-time firefighters or relocate administration at this same location. This would allow for growth into a full time force.

Three Project Options

10. For the most part, the existing building is non-code compliant and is not worth repairing due to many factors outlined in the Assessment Report. Even if the building was repaired, there are still amny problems for a properly functioning fire department. The FD will use this to help explain the request for a new station. There will be a cost estimate for repairs based on the Assessment Report

11. The Design team will prepare a revised one line renovation and Addition Scheme based on comments from the previous meetings for review with the Committee. Plans will be further developed to be used to estimate cost for this Option.

12. Option three will be the new fire station option based on Schematic Design plans and elevations.

13. According to SF, the neighbor to the south (Durkee) is willing to sell land to the Town.

Next Steps

14. The town will get the Space Needs Analysis Priority list for Police to the Design team.

15. Design Team will update the Space Needs Analysis.

16. Design will prepare single line plans for review.

17. Schematic Design Plans and massing perspectives will be prepared after single line plans have been approved.

18. Next Meeting is not scheduled and will be determined after Police Priorities and revised space needs along with revised single line plans have been completed.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Revised 15 Year and 50 Year Space Needs Analysis with Priorities dated Feb 17, 2014

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	

15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	REMARKS
Police Department						
PUBLIC SPACES						
Soft Interview / Complaint	100	100			100	
Waiting Area	120	120			120	
SUBTOTAL	**220**	**220**	**0**	**0**	**220**	
ADMINISTRATION						
Police Chief Office	200	200			200	
SUBTOTAL	**200**	**200**	**0**	**0**	**200**	
OPERATIONS						
Patrol Room	440	440			440	
Kitchenette	60	60			60	
Toilet/Shower/Locker (Male)	330	330			330	(5) Lockers
Toilet/Shower/Locker (Female)	190	190			190	(2) Lockers
Evidence Processing	110	110			110	
Evidence Storage	65	65			65	
Booking	235	235			235	
Hard Interview Room / Cuffing	75	75			75	
Detention Cell - Male	70	70			70	
Detention Cell - Female	70	70			70	
Secure Toilet	40	40			40	
Sallyport	540	540			540	Single vehicle
SUBTOTAL	**2,225**	**2,225**	**0**	**0**	**2,225**	
Grand Total Police Department	**2,645**	**2,645**	**0**	**0**	**2,645**	

15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	REMARKS
Fire Department						
PUBLIC AREAS						
Dispatch / Radio Room / Reports	180	180	180			
Waiting Area	120	120			120	
Triage Room	120	120			120	
SUBTOTAL	**420**	**420**	**180**	**0**	**240**	
ADMINISTRATION						
Fire Chief Office	200	200	200			
Administrative Assistant / Records	160	160			160	
Deputy Fire Chiefs' Office	190		190			Shared Office
Pres. / VP Office	190	190	190			Shared Office
Training Officer	190			190		(2) Workstations
Captain / Lieutenant Office	390			190		(4) Workstations
EMS Office	120	120		120		
Conference Room	240				240	
Fire Prevention / File Storage	190	190			190	
Work Room - Office Equipment / Copy / Supplies	80	80	80			
Staff Toilet (1 set of 2 rooms)	120	120	120			
SUBTOTAL	**2,070**	**1,060**	**780**	**500**	**590**	
LIVING SPACES						
Sleeping Quarters	550	550			550	(6) Shared Dorm spaces
Toilet Shower	270	270	270			(3) gender neutral
Day Room	545	545	545			
Kitchen/Dining	470	470	470			
Domestic Laundry	85	85			85	
SUBTOTAL	**1,920**	**1,920**	**1,285**	**0**	**635**	
OPERATIONS						
Apparatus Bays	6,080		6080			(2) 20'W & (2) 18'W x 80'D Bays
Apparatus Bays		4640		4640		(2) 20'W & (1) 18'W x 80'D Bays
Hose / Training Tower	430	430	430			144 SF x 3 Stories
SUBTOTAL	**6,510**	**5,070**	**6,510**	**4,640**	**0**	
OPERATIONS SUPPORT						
Hose Storage	65	65	65			
Turnout Gear Storage	385	385	385			(30) Lockers
Shop / Tool Room / Light Maintenance	180	180	180			
Medical Cleaning / Decontamination	190	190	190			
Dirty Restroom	65	65	65			
SCBA Fill Room	100	100	100			
Medical Supply Storage	80	80	80			
Quartermaster Storage	200	200	200			
General Storage	150	150	150			
Apparatus Bay Cleaning Closet	80	80	80			
SUBTOTAL	**1,495**	**1,495**	**1,495**	**0**	**0**	
Grand Total Fire Department	**12,415**	**9,965**	**10,250**	**5,140**	**1,465**	

15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	REMARKS
Shared Spaces						
PUBLIC AREAS						
Entry Vestibule - Lobby	200	100			100	
Public Toilet (1 set of 2 rooms)	280				280	
Training Room / EOC	825	450	450			
Hospitality Room	125	60			60	
Training Prop Storage	100	100	100			
Training AV & Table / Chair Storage	100	100	100			
SUBTOTAL	**1,630**	**810**	**650**	**0**	**440**	
SHARED SPACES						
Server Room	100	100	100			
Fitness Room	400	400			400	
Janitor's Closet	30	30	30			
SUBTOTAL	**530**	**530**	**130**	**0**	**400**	
Grand Total Shared Spaces	**2,160**	**1,340**	**780**	**0**	**840**	
BUILDING SYSTEMS + CIRCULATION						
Stairs	1,080	1080	1080			2 @ 180 SF/Flr x 3 Flrs
Elevator	160	160	160			3 Flrs @ 53 SF/FLR
Elevator Machine Room	80	80	80			
Mechanical/Electrical	500	500	500			
SUBTOTAL	**1,820**	**1,820**	**1,820**	**0**	**0**	
SUMMARY						
Police Department	2,645	2,645	0	0	2,645	
Shared Spaces	2,160	1,340	780	0	840	
Subtotal	4,805	3,985	780	0	3,485	
Infrastructure @ 15%	721	598	117	0	523	
Building Circulation @ 20%	961	797	156	0	697	
SUBTOTAL SF	**6,487**	**5,380**	**1,053**	**0**	**4,705**	
Fire Department	12,415	9,965	10,250	5,140	1,465	
Building Systems + Circulation	1,820	1,820	1,820	0	0	
Subtotal	14,235	11,785	12,070	5,140	1,465	
Infrastructure @ 12.5%	1,779	1,473	1,509	643	183	
Building Circulation @ 12.5%	1,779	1,473	1,509	643	183	
SUBTOTAL SF	**17,794**	**14,731**	**15,088**	**6,425**	**1,831**	
GRAND TOTAL SF	**24,281**	**20,111**	**16,141**	**6,425**	**6,536**	

Subtotals for Prioritization ***16,141 6,425 6,536***

15-Yr **High** Priority Total SF (***Fire Only***)	**16,141**	(reflects increase in FD spaces due to larger App Bay)
15-Yr Including **Med** Priority Total SF (***Fire Only***)	**14,966**	(reflects decreased App Bay)
15-Yr Including **Low+Med** Priority Total SF and **Police** Program	**21,502**	(reflects decreased App Bay number plus Police Program)

50-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	50-YR PRIORITY H	M	L	REMARKS
Police Department						
PUBLIC SPACES						
Soft Interview / Complaint	100	100			100	
Waiting Area	120	120			120	
SUBTOTAL	**220**	**220**	**0**	**0**	**220**	
ADMINISTRATION						
Police Chief Office	200	200			200	
SUBTOTAL	**200**	**200**	**0**	**0**	**200**	
OPERATIONS						
Patrol Room	440	440			440	
Kitchenette	60	60			60	
Toilet/Shower/Locker (Male)	330	330			330	(5) Lockers
Toilet/Shower/Locker (Female)	190	190			190	(2) Lockers
Evidence Processing	110	110			110	
Evidence Storage	65	65			65	
Booking	235	235			235	
Hard Interview Room / Cuffing	75	75			75	
Detention Cell - Male	70	70			70	
Detention Cell - Female	70	70			70	
Secure Toilet	40	40			40	
Sallyport	540	540			540	Single vehicle
SUBTOTAL	**2,225**	**2,225**	**0**	**0**	**2,225**	
Grand Total Police Department	**2,645**	**2,645**	**0**	**0**	**2,645**	

50-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	50-YR PRIORITY H	M	L	REMARKS
Fire Department						
PUBLIC AREAS						
Dispatch / Radio Room / Reports	180	180	180			
Waiting Area	120	120	120			
Triage Room	120	120			120	
SUBTOTAL	**420**	**420**	**300**	**0**	**120**	
ADMINISTRATION						
Fire Chief Office	200	200	200			
Administrative Assistant / Records	160	160			160	
Deputy Fire Chiefs' Office	190		190			Shared Office
Pres. / VP Office	190	190	190			Shared Office
Training Officer	190			190		(2) Workstations
Captain / Lieutenant Office	390			390		(4) Workstations
EMS Office	120	120	120			
Conference Room	240				240	
Fire Prevention / File Storage	190	190			190	
Work Room - Office Equipment / Copy / Supplies	80	80	80			
Staff Toilet (1 set of 2 rooms)	120	120	120			
SUBTOTAL	**2,070**	**1,060**	**900**	**580**	**590**	
LIVING SPACES						
Sleeping Quarters	550	550	550			(6) Shared Dorm spaces
Toilet Shower	270	270	270			(3) gender neutral
Day Room	545	545	545			
Kitchen/Dining	470	470	470			
Domestic Laundry	85	85	85			
SUBTOTAL	**1,920**	**1,920**	**1,920**	**0**	**0**	
OPERATIONS						
Apparatus Bays	6,080		6080			(2)20'W & (2)18'W x80'D Bays
Apparatus Bays		4640				(2)20'W & (1)18'W x80'D Bays
Hose / Training Tower	430	430	430			144 SF x 3 Stories
SUBTOTAL	**6,510**	**5,070**	**6,510**	**0**	**0**	
OPERATIONS SUPPORT						
Hose Storage	65	65	65			
Turnout Gear Storage	385	385	385			(30) Lockers
Shop / Tool Room / Light Maintenance	180	180	180			
Medical Cleaning / Decontamination	190	190	190			
Dirty Restroom	65	65	65			
SCBA Fill Room	100	100	100			
Medical Supply Storage	80	80	80			
Quartermaster Storage	200	200	200			
General Storage	150	150	150			
Apparatus Bay Cleaning Closet	80	80	80			
SUBTOTAL	**1,495**	**1,495**	**1,495**	**0**	**0**	
Grand Total Fire Department	**12,415**	**9,965**	**11,125**	**580**	**710**	

50-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

February 17, 2014

PROGRAMMED SPACE	REQUESTED	REC'MND CR 11/13/13	50-YR PRIORITY H	M	L	REMARKS
Shared Spaces						
PUBLIC AREAS						
Entry Vestibule - Lobby	200	100			100	
Public Toilet (1 set of 2 rooms)	280				280	
Training Room / EOC	825	450	450			
Hospitality Room	125	60			60	
Training Prop Storage	100	100	100			
Training AV & Table / Chair Storage	100	100	100			
SUBTOTAL	**1,630**	**810**	**650**	**0**	**440**	
SHARED SPACES						
Server Room	100	100	100			
Fitness Room	400	400			400	
Janitor's Closet	30	30	30			
SUBTOTAL	**530**	**530**	**130**	**0**	**400**	
Grand Total Shared Spaces	**2,160**	**1,340**	**780**	**0**	**840**	
BUILDING SYSTEMS + CIRCULATION						
Stairs	1,080	1080	1080			2 @ 180 SF/Flr x 3 Flrs
Elevator	160	160	160			3 Flrs @ 53 SF/FLR
Elevator Machine Room	80	80	80			
Mechanical/Electrical	500	500	500			
SUBTOTAL	**1,820**	**1,820**	**1,820**	**0**	**0**	
SUMMARY						
Police Department	2,645	2,645	0	0	2,645	
Shared Spaces	2,160	1,340	780	0	840	
Subtotal	4,805	3,985	780	0	3,485	
Infrastructure @ 15%	721	598	117	0	523	
Building Circulation @ 20%	961	797	156	0	697	
SUBTOTAL SF	**6,487**	**5,380**	**1,053**	**0**	**4,705**	
Fire Department	12,415	9,965	11,125	580	710	
Building Systems + Circulation	1,820	1,820	1,820	0	0	
Subtotal	14,235	11,785	12,945	580	710	
Infrastructure @ 12.5%	1,779	1,473	1,618	73	89	
Building Circulation @ 12.5%	1,779	1,473	1,618	73	89	
SUBTOTAL SF	**17,794**	**14,731**	**16,181**	**725**	**888**	
GRAND TOTAL SF	**24,281**	**20,111**	**17,234**	**725**	**5,592**	

Subtotals for Prioritization ***17,234 725 5,592***

50-Yr **High** Priority Total SF (***Fire Only***)	**17,234**	(reflects increase in FD spaces due to larger App Bay)
50-Yr Including **Med** Priority Total SF (***Fire Only***)	**17,959**	(reflects decreased App Bay)
50-Yr Including **Low+Med** Priority Total SF and **Police** Program	**23,552**	(reflects decreased App Bay plus Police Program)

From:	Matt Murtha
To:	Alan M. Brown; Donald M Walter
Cc:	Zachary Zettler
Subject:	Killington Space Needs Analysis: 15-yr & 50-yr projections
Date:	Wednesday, March 12, 2014 3:38:26 PM
Attachments:	image001.png image002.png image004.png image005.png Killington_SpaceNeedsAnalysis_031014_15 YR Priority.pdf Killington_SpaceNeedsAnalysis_031014_50 YR Priority.pdf

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Please see the attached Killington Space Needs Analyses. These reflect the Fire Chief's mark-ups for 15-yr and 50-yr projections.

Notes for 15-yr spreadsheet:

- Police area is added in the "Low" priority totals
- The larger App Bay is used for "High" priority, while "Med" and "Low" are factored with the smaller App Bay
- Reduced sizes for Training Room and Lobby Spaces were used

Notes for 15-yr spreadsheet:

- Police area is added in the "Low" priority totals
- The larger App Bay is used for "High" "Med" and "Low" priorities
- Reduced sizes for Training Room and Lobby Spaces were used

Please let me know if you have any questions.

Thanks,
Matt

Matthew F. Murtha, AIA, NCARB, LEED AP
leader
CR architecture + design

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(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 2 May 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Steve Finer (SF)	Killington Fire Department (KFD)
Chet Hagenbarth (CH)	Town of Killington DPW
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. AB reviewed the latest revised Space Needs Analysis. No changes were discussed for the Police Department. The following changes were made in the Fire Department:
   a. Reduce the area of the Dispatch to 150 SF
   b. Reduce the size of the Fire Chief's Office to 150 SF
   c. Reduce Deputy Fire Chief and President/VP Office to 150 SF each
   d. Delete Staff Toilet in Administration. It was decided the gender neutral Toilets with showers could be used.
   e. Reduce the size of the Kitchen to 150 SF
   f. Increase the size of the Training EOC Room to 825 SF. This is a little closer in size to the existing Training Room which gets used quite a bit.
   g. Reduce the size of the Server Room to a closet off Dispatch if possible.

   These changes will be reflected in another revised Space Need Analysis. This will be sent out very shortly for review and approval by the Building Committee

2. Once the Design Team has an approved Space Needs Analysis, they can then prepare revised conceptual plans for both the Renovation and Addition option as well as the New Building option.

3. D&W presented a list of Capital Improvements based on the Assessments of the existing Main Fire Station. The approximate estimated cost so far is $2,000,000 for just the improvements. It does not include any additions that may be needed to allow for the improvements. This will be looked at further. The all but two of the Apparatus Bays allow for the current apparatus, but not well.

4. As part of the Renovation/ Addition, the Building felt that the existing Station No 2 should be included. D&W will visit the site next week to measure and assess this station.

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5. The Addition/Renovation should look at adding bays to the existing station and provide additions for the stairs and elevator as well as storage and TOG storage

6. When looking at the Addition/Renovation option and New Building Option, look at how the Police Station could be an add-on in the future if funding is not available.

Next Steps

7. Once an accepted Space Needs Analysis is returned to the Design Team, four design options will be prepared.
    a. Capital Improvements plan for required additions to allow for improvements
    b. Renovation and Addition with Police add-on
    c. Renovation and Addition without a Police add-on
    d. New Facility

8. The Building Committee would like to present findings at the Board of Selectmen meeting on July 8th. SW to confirm.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Revised 15 Year Space Needs Analysis with Priorities dated April 29, 2014

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	DMW/LPD/File	

Revised 15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

April 29, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	% Change from Exg	REMARKS
Police Department								
PUBLIC SPACES								
Soft Interview / Complaint		100	100			100		
Waiting Area		120	120		120			
SUBTOTAL	**0**	**220**	**220**	**0**	**120**	**100**		
ADMINISTRATION								
Police Chief Office		200	200	100				Requested change to 100 SF
SUBTOTAL	**0**	**200**	**200**	**100**	**0**	**0**		
OPERATIONS								
Patrol Room		440	440	440				with Workstations
Kitchenette		60	60			60		
Toilet/Shower/Locker (Male)		330	330	180				2 gender neutral Toilet Showers
Gender Neutral Lockers (Male and Female)				180				18'by10' locker room
Toilet/Shower/Locker (Female)		190	190					
Evidence Processing		110	110			110		
Evidence Storage		65	65	65				
Booking		235	235		235			one small desk
Hard Interview Room / Cuffing		75	75	75				
Detention Cell - Male		70	70	70				(1 needed in H Priority)
Detention Cell - Female		70	70					
Secure Toilet		40	40	40				
Sallyport		540	540	540				Single vehicle
SUBTOTAL	**0**	**2,225**	**2,225**	**1,590**	**235**	**170**		
Grand Total Police Department	**0**	**3,950**	**2,645**	**1,690**	**355**	**270**	**0%**	

Revised 15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

April 29, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	% Change from Exg	REMARKS
Fire Department								
PUBLIC AREAS								
Dispatch / Radio Room / Reports		180	180	180				
Waiting Area		120	120			120		
Triage Room		120	120			120		
SUBTOTAL	**0**	**420**	**420**	**180**	**0**	**240**	**0%**	
ADMINISTRATION								
Fire Chief Office	129	200	200	200				
Administrative Assistant / Records		160	160			160		
Deputy Fire Chiefs' Office	128	190		190				Shared Office
Pres. / VP Office		190	190	190				Shared Office
Training Officer		190			190			(2) Workstations
Captain / Lieutenant Office		390			190			(4) Workstations
EMS Office		120	120		120			
Conference Room		240				240		
Fire Prevention / File Storage		190	190			190		
Work Room - Office Equipment / Copy / Supplies		80	80	80				
Staff Toilet (1 set of 2 rooms)		120	120	120				
SUBTOTAL	**257**	**2,070**	**1,060**	**780**	**500**	**590**	**33%**	
LIVING SPACES								
Sleeping Quarters		550	550			550		(6) Shared Dorm spaces
Toilet Shower	33	270	270	180				Change from(3) gender neutral to (2) gender neautral
Personnel Lockers				100				Lockers were included in the Sleeping Qtrs. Does Fire Still want? 6 - 10 Lockers?
Day Room	496	545	545	545				
Kitchen/Dining	122	470	470	470				
Domestic Laundry		85	85			85		
SUBTOTAL	**651**	**1,920**	**1,920**	**1,295**	**0**	**635**	**50%**	
OPERATIONS								
Apparatus Bays	3579	6,080		6,720				(4) 18'W & (2)20'W x 60'D Bays
Apparatus Bays			4640					(2) 20'W & (1) 18'W x 80'D Bays
Hose / Training Tower		430	430	430				144 SF x 3 Stories
SUBTOTAL	**3,579**	**6,510**	**5,070**	**7,150**	**0**	**0**	**50%**	
OPERATIONS SUPPORT								
Hose Storage		65	65	65				
Turnout Gear Storage	110	385	385	385				(30) Lockers
Shop / Tool Room / Light Maintenance		180	180	180				
Medical Cleaning / Decontamination		190	190	190				

Revised 15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

April 29, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	% Change from Exg	REMARKS
Dirty Restroom		65	65	65				
SCBA Fill Room		100	100	100				
Medical Supply Storage		80	80	80				
Quartermaster Storage	118	200	200	200				
General Storage	66	150	150	150				
Apparatus Bay Cleaning Closet		80	80	80				
Attic Storage	276							
SUBTOTAL	**570**	**1,495**	**1,495**	**1,495**	**0**	**0**	**38%**	
Grand Total Fire Department	**5,057**	**12,415**	**9,965**	**10,900**	**500**	**1,465**	**46%**	

Revised 15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

April 29, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	% Change from Exg	REMARKS
Shared Spaces								
PUBLIC AREAS								
Entry Vestibule - Lobby	62	200	100			100	0%	
Public Toilet (1 set of 2 rooms)		280				280		
Training Room / EOC	940	825	450	450			-109%	
Hospitality Room		125	60			60		
Training Prop Storage		100	100	100				
Training AV & Table / Chair Storage		100	100	100				
SUBTOTAL	**1,002**	**1,630**	**810**	**650**	**0**	**440**	-54%	
SHARED SPACES								
Server Room		100	100	100				
Fitness Room		400	400			400		
Janitor's Closet		30	30	30				
SUBTOTAL	**0**	**530**	**530**	**130**	**0**	**400**	**0%**	
Grand Total Shared Spaces	**1,002**	**2,160**	**1,340**	**780**	**0**	**840**	**-28%**	
BUILDING SYSTEMS + CIRCULATION								
Stairs	54	1,080	1080	1080				2 @ 180 SF/Flr x 3 Flrs
Elevator		160	160	160				3 Flrs @ 53 SF/FLR
Elevator Machine Room		80	80	80				
Mechanical/Electrical	20	500	500	500				
SUBTOTAL	**74**	**1,820**	**1,820**	**1,820**	**0**	**0**	**4%**	
SUMMARY								
Police Department	0	3,950	2,645	1,690	355	270		
Shared Spaces	1,076	2,160	1,340	780	0	840		
Subtotal	1,076	6,110	3,985	2,470	355	1,110		
Infrastructure @ 15%		917	598	371	53	167		
Building Circulation @ 20%		1,222	797	494	71	222		
SUBTOTAL SF	1,076	**8,249**	**5,380**	**3,335**	**479**	**1,499**		
Fire Department	5,057	12,415	9,965	10,900	500	1,465		
Building Systems + Circulation		1,820	1,820	1,820	0	0		
Subtotal	5,057	14,235	11,785	12,720	500	1,465		

Revised 15-YR Priority SPACE NEEDS ANALYSIS

Killington Public Safety Complex

April 29, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	REC'MND CR 11/13/13	15-YR PRIORITY H	M	L	% Change from Exg	REMARKS
Infrastructure @ 12.5%		1,779	1,473	1,590	63	183		
Building Circulation @ 12.5%		1,779	1,473	1,590	63	183		
SUBTOTAL SF	**5,057**	**17,794**	**14,731**	**15,900**	**625**	**1,831**		
GRAND TOTAL SF	**7,196**	**26,042**	**20,111**	**19,235**	**1,104**	**3,330**	**37%**	

Subtotals for Prioritization ***19,235 1,104 3,330***

15-Yr **High** Priority Total SF **19,235** (reflects increase in FD spaces due to larger App Bay)

15-Yr Including **Med** Priority Total SF **20,339**

15-Yr Including **Low+Med** Priority Total SF **23,669**

H-111

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MEETING MINUTES

DATE OF MEETING: 13 June 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Chet Hagenbarth (CH)	Town of Killington DPW
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

Capital Improvements Plans (Options 1 and 1A)

1. Option 1 was reviewed which includes required additions as well as showing an outline for a 20 foot by 60 foot garage/bay on top of existing Station 2.
    a. Apparatus do not fit in the existing bays
    b. Not enough App Bays
    c. This requires Station Two to be rebuilt to meet the number of App Bays.
    d. Station Two site may not be large enough to accommodate the new garage. Town would need to attain additional information including property lines and contours (ie full survey).
2. Option 1a was reviewed. It is the same as Option 1 except an additional Apparatus Bay is added to the north and Station 2 would remain as is.
    a. Apparatus do not fit in the existing bays
    b. Restricts access to the north of the Station.

Renovation/ Addition (Options 2 and 2A)

3. Option 2 turns the southernmost Apparatus Bays towards Killington Road. They are 20 foot by 60 foot bays and meet the total number of required bays. The other bays are the same width but are extended to 60 foot long. Apparatus would have to back into the bays off Killington Road.
    a. Plans meet the required Program
    b. Police are included
    c. Not enough room for parking at the south end of the site
    d. Would require additional land from the neighboring site to the south
    e. This scheme requires extensive demolition and renovation. Only portions of the three existing bays are kept including the water storage cistern
    f. Cost is almost the same or slightly more than new construction.
    g. This is a three story solution
4. Option 2a is almost the same except that police has been eliminated.

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a. Parking is just barely possible at the south of the building

New Facility (Options 3 and 3A)

5. Option 3 is new construction which includes Police. It is a three story solution.
    a. Plans meet the required Program
    b. Police are included
    c. Not enough room for parking at the south end of the site
    d. Would require additional land from the neighboring site to the south

6. Option 3A is the same as option 3 except the Police Station has been eliminated although space would be allowed for on the site for a future Police Station.
    a. Plans meet the required Program
    b. Police are not included
    c. Not enough room for parking at the south end of the site
    d. Would require additional land from the neighboring site to the south

New Facility (Option 3B)

7. Option 3B is new construction which does not include Police but is a two story fire station
    a. Plans meet the required Program for Fire only
    b. Not enough room for parking at the south end of the site
    c. Would require additional land from the neighboring site to the south

Options Summary

8. Maximum allowed height of the building was confirmed with the Town's planner. It is 28 feet from grade to the uppermost finish floor. All the options shown would meet this height requirement.

9. Options 2 and 2A provided the programming needs but are almost as expensive or slightly more than the new facility options and are an inefficient use of space.

10. The Committee is concerned with the area between the neighbor's property and the Fire Station as far as access for his delivery trucks and snow storage.

11. Quartermaster should be moved to the first floor is possible. The Chief goes into this room on a regular basis.

Options Cost Estimates

12. A summary and breakdown were presented to the Committee. A copy is attached to these minutes. The least expensive is Option 1 with the Renovation and Addition (options 2 and 2A) the most expensive.

13. The cost for capital improvements Option 1 must include the cost to build the new Station Two. It is understood that Option 1 will be more expensive than Optiion 1A.

14. In order to complete the Options cost analysis, all land value would need to be included. The Town will need to supply this information.

15. The Estimates should include phasing and relocation costs.

Site Discussion

16. There has not been any further discussions with Durkee regarding purchasing additional property .
17. All of the building/site options require purchase of some property from Durkee. The Committee is wondering what the cost would be and whether it is worth it when added onto the building construction costs.
18. The Market Place Property (neighboring land) is assessed at $991,510. The Project would need a portion of the property. A guess was around $50,000.
19. The Town may be interested in a site just down the road that is just over 6 acres. This property is also owned by Durkee. Perhaps a land swap with the existing Fire Station would be possible. The assessed value of this site (parcel 249 on the assessor's map) is $295,290 for 6.43 acres.
20. The Design team was asked to place the Option 3 Public Safety Building on this site and see if there is enough room for this facility as well as a future Town Hall

Schedule

21. The Design team is preparing a draft power point presentation of the study for the upcoming Board of Selectmen's meeting July 8 at 10:00 am. The Draft will be sent to the Town by the end of next week (6-20-14). The presentation should include pros and cons for each option.

22. It was decided to continue to refine the cost estimates but they will not be presented at the Selectmen's meeting. The presentation will inform the Selectmen of relative costs and which is the most expensive Option and which is the least expensive.

23. A telephone conference call will be scheduled with D&W and the Town on July 3, 2014 at 10:30 am. D&W will set up the conference call.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

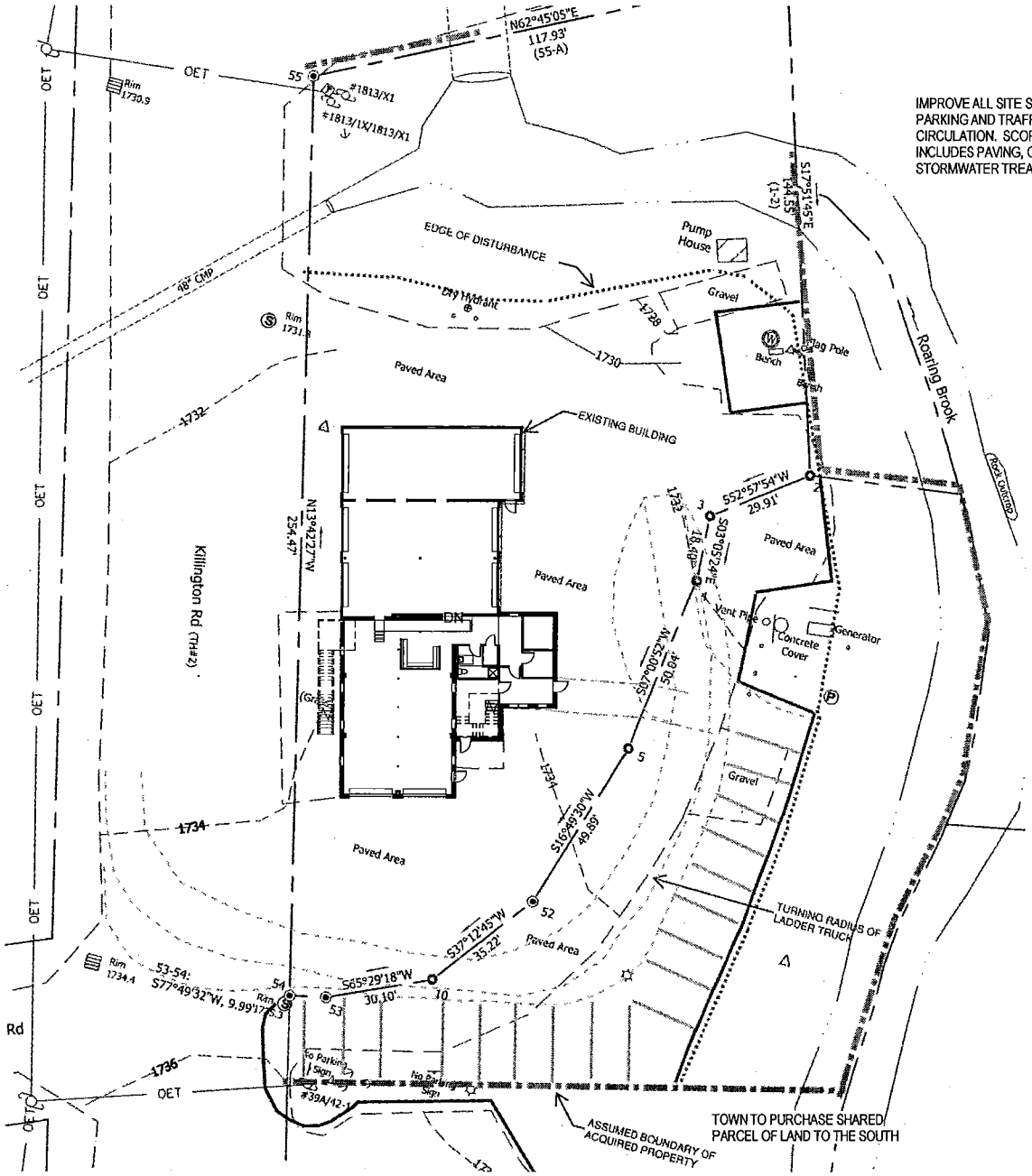
Encl. Siteplan, Floor Plans, Massing Model for Options 1,1A,2,2A,3,3A,3B
Estimated Project Costs for each Option dated 6/12/14
Program Comparison

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	Peter Bradley	PM&C
	DMW/LPD/File	

DORE & WHITTIER ARCHITECTS, INC.

OPTION 1, CAPITAL IMPROVEMENTS TO EXISTING BUILDING & NEW APP. BAY AT SITE 2

SITE PLAN



IMPROVE ALL SITE SAFETY WITH PARKING AND TRAFFIC CIRCULATION. SCOPE INCLUDES PAVING, CURBS AND STORMWATER TREATMENT

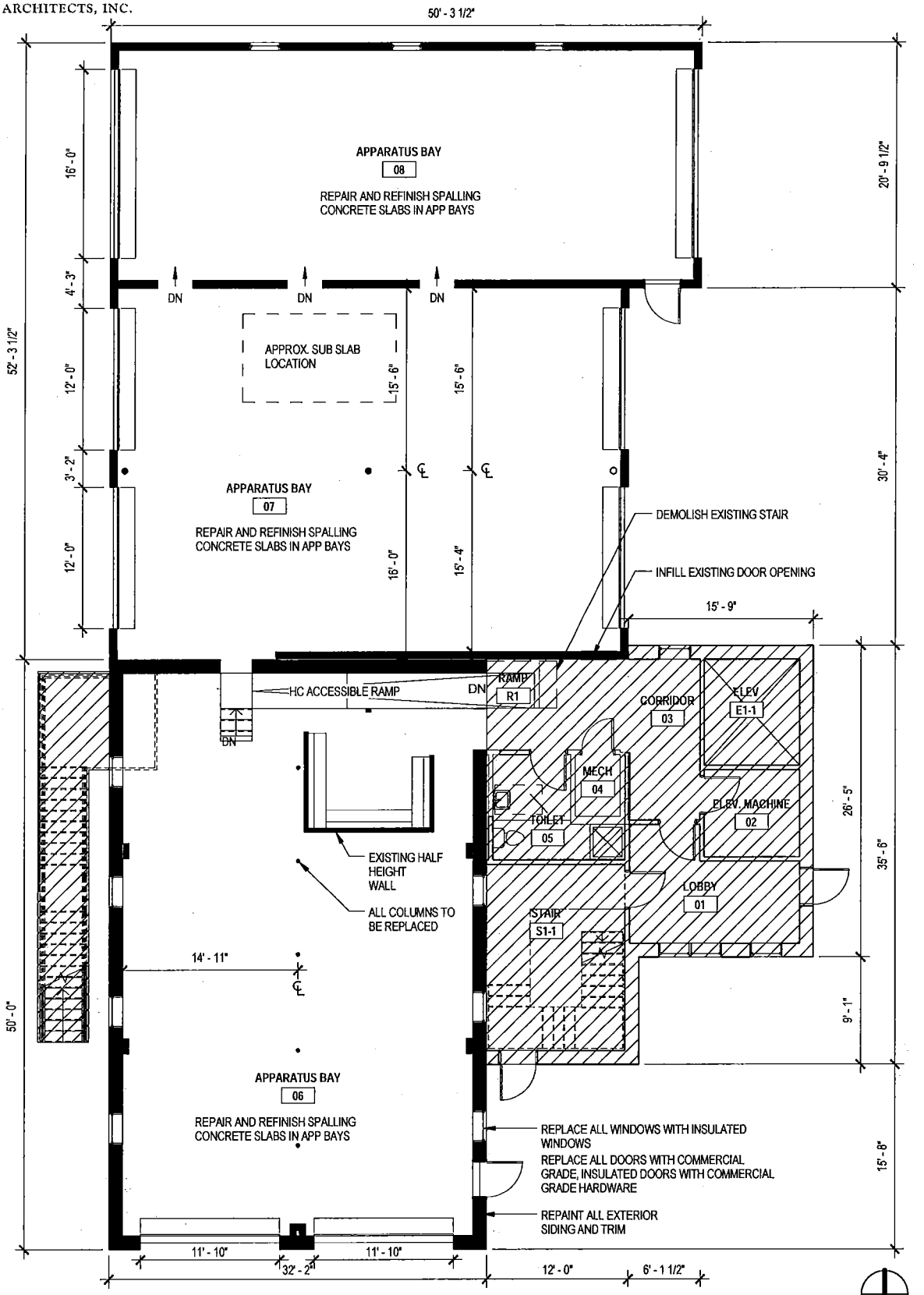
0 15' 30' 60'

SCALE: 1"=30'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 1, CAPITAL IMPROVEMENTS TO EXISTING BUILDING & NEW APP. BAY AT SITE 2

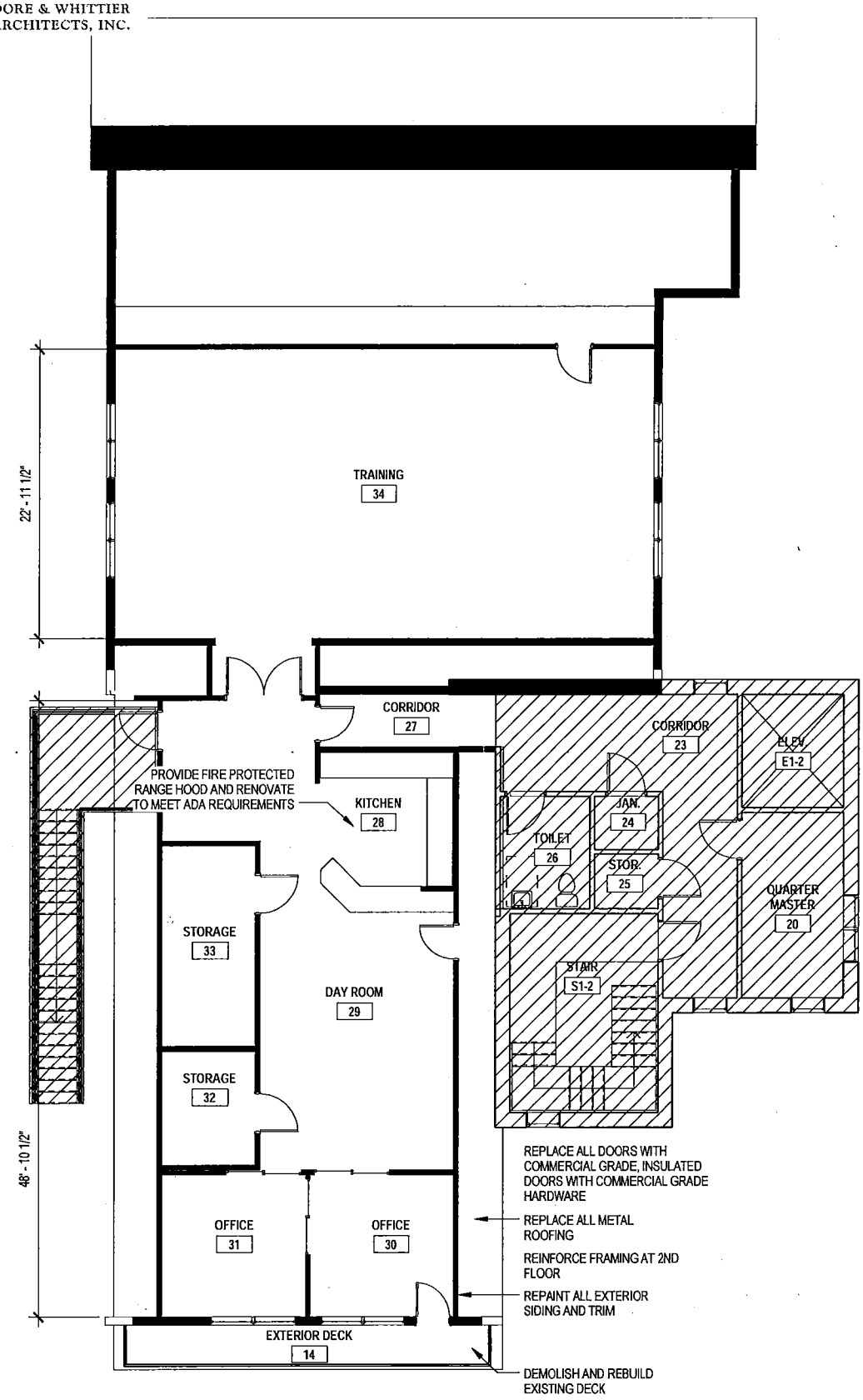
LEVEL 1



DORE & WHITTIER ARCHITECTS, INC.

OPTION 1, CAPITAL IMPROVEMENTS TO EXISTING BUILDING & NEW APP. BAY AT SITE 2

LEVEL 2



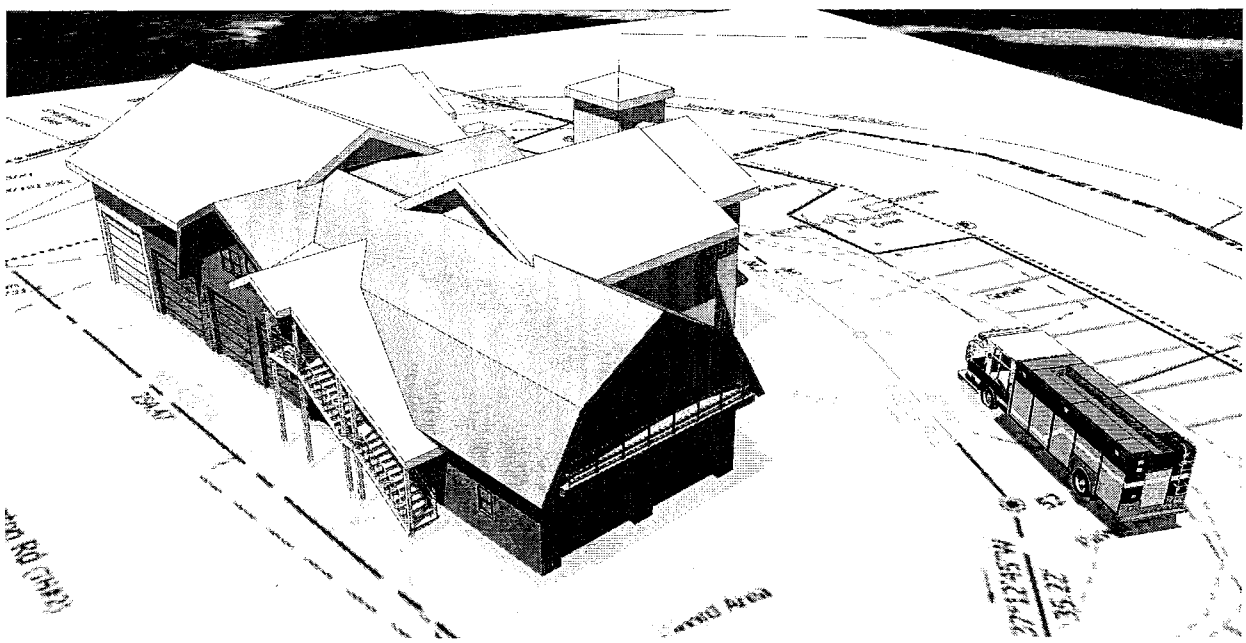
0 4' 8' 16'

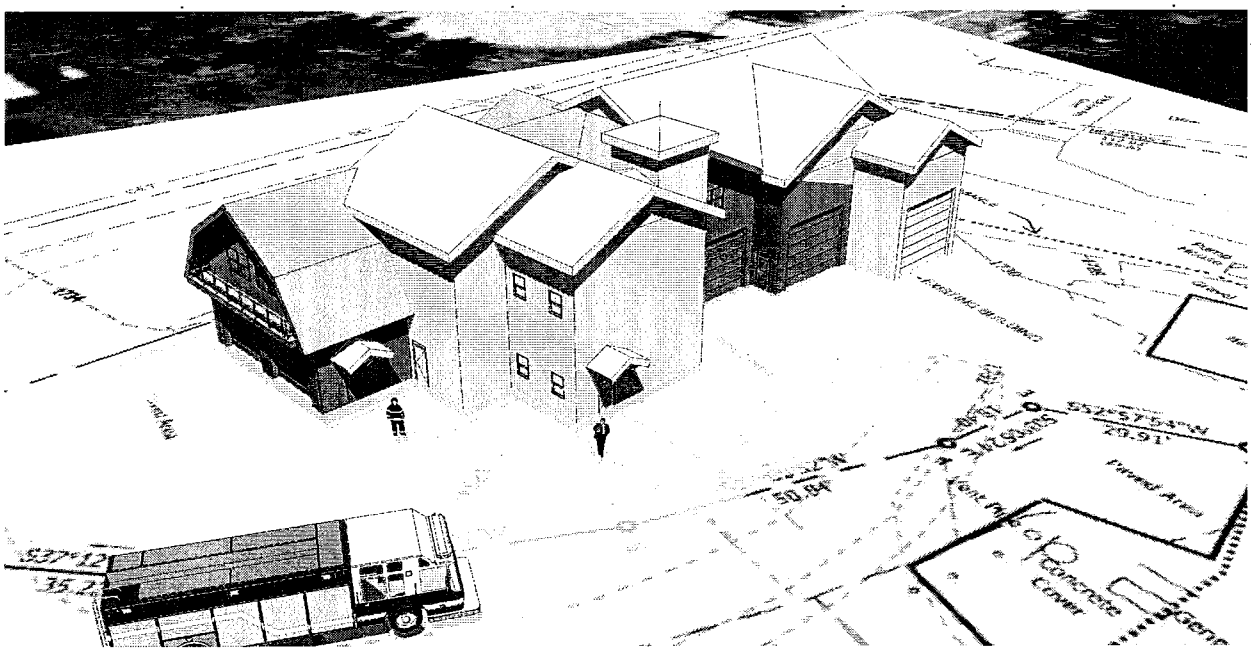
SCALE: 1/8"=1'-0" GRAPHIC SCALE

H-118

DORE & WHITTIER
ARCHITECTS, INC.

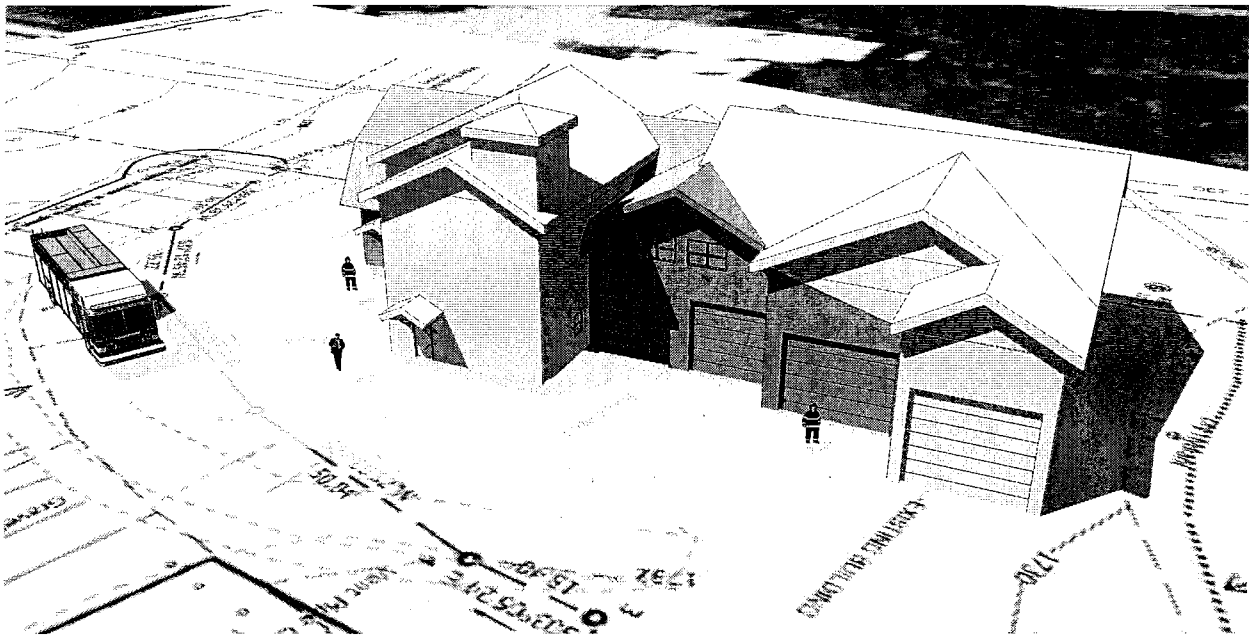
OPTION 1, CAPITAL
IMPROVEMENTS TO
EXISTING BUILDING & NEW
APP. BAY AT SITE 2

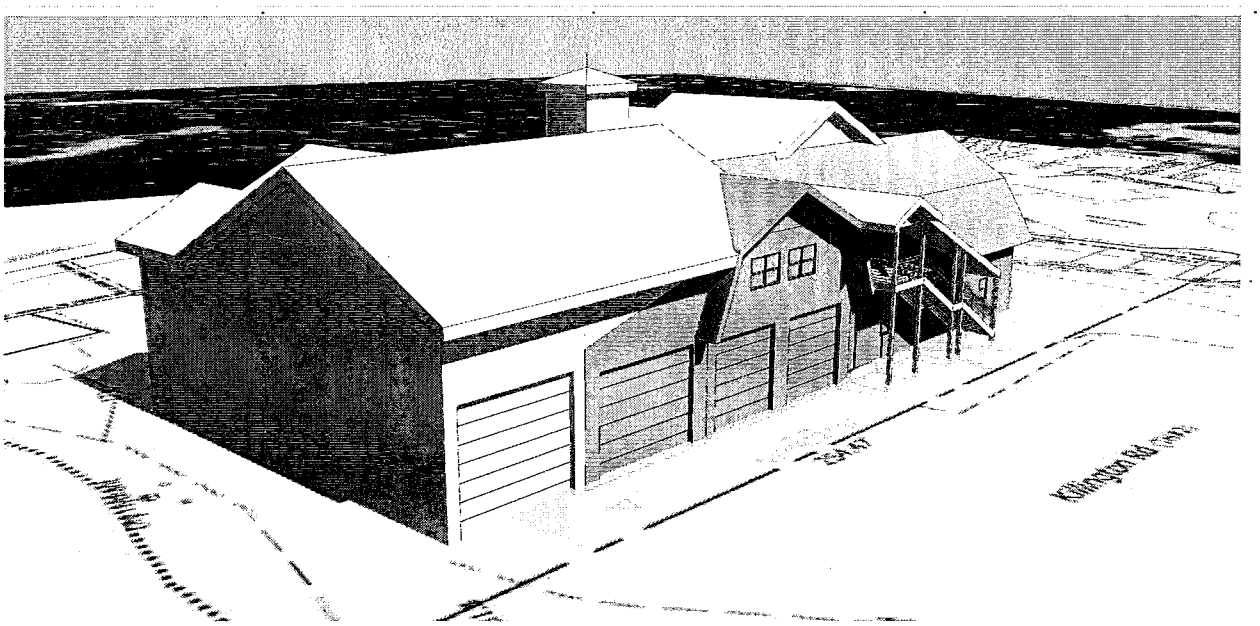




DORE & WHITTIER
ARCHITECTS, INC.

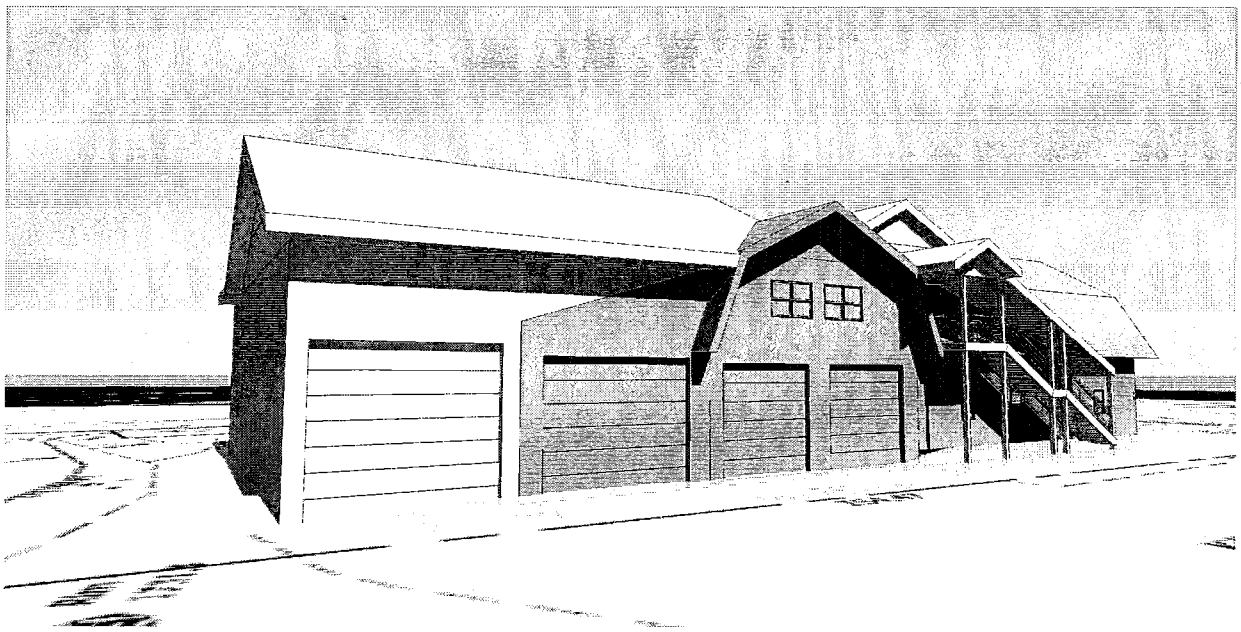
OPTION 1, CAPITAL
IMPROVEMENTS TO
EXISTING BUILDING & NEW
APP. BAY AT SITE 2

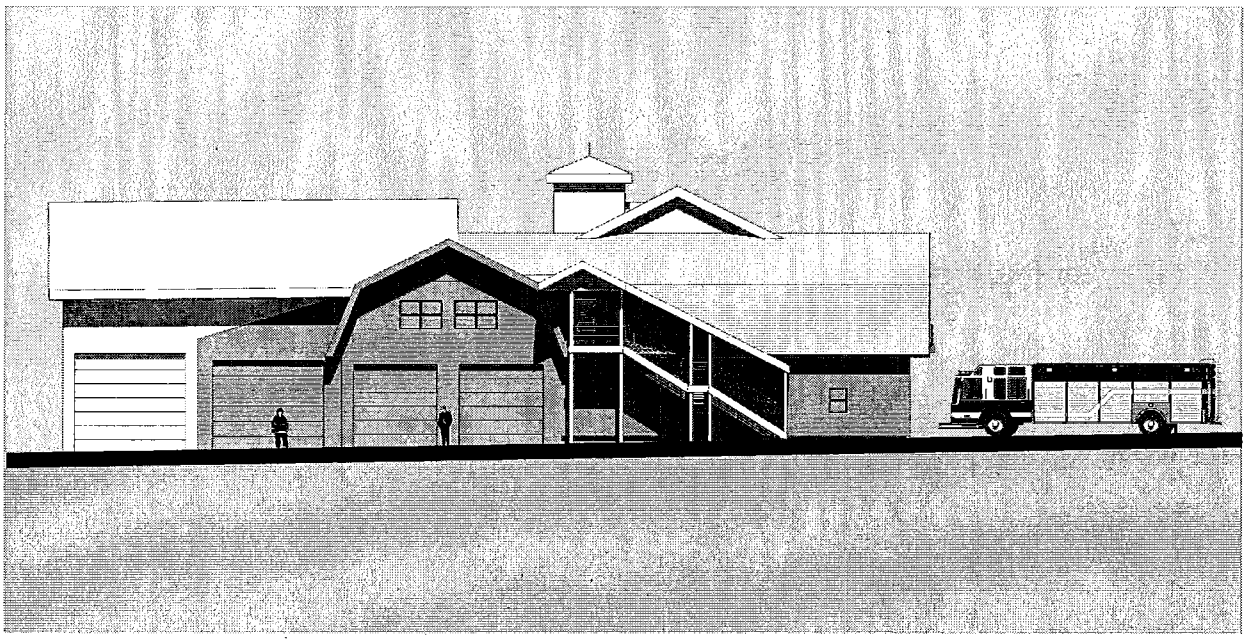




DORE & WHITTIER
ARCHITECTS, INC.

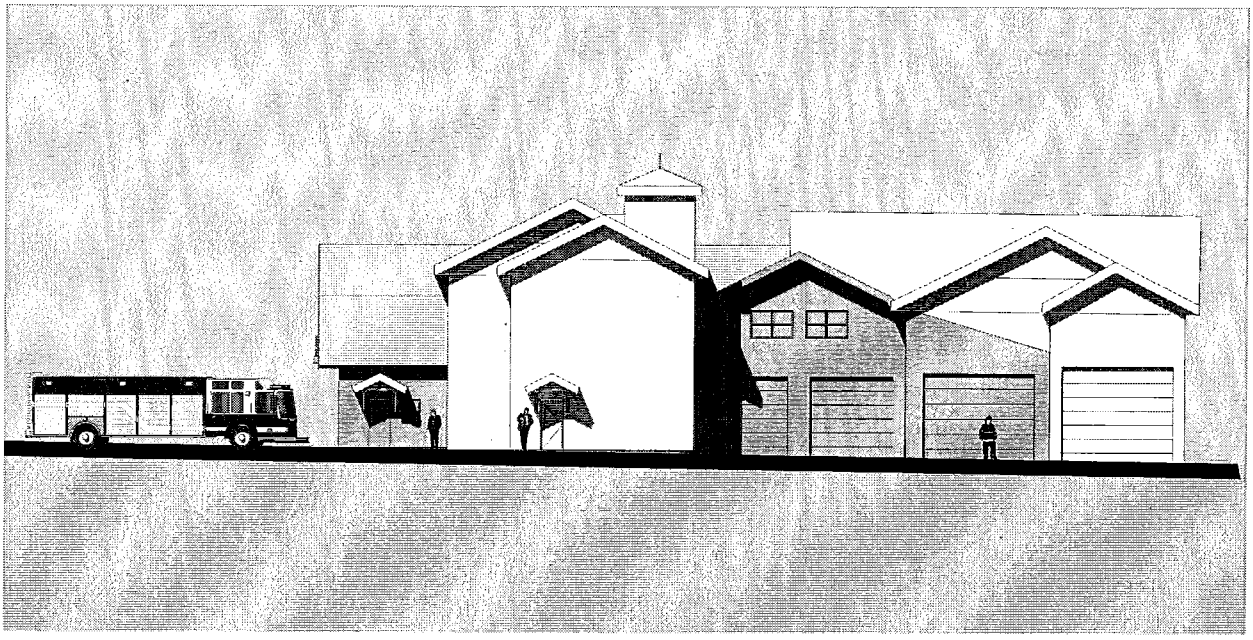
OPTION 1, CAPITAL
IMPROVEMENTS TO
EXISTING BUILDING & NEW
APP. BAY AT SITE 2

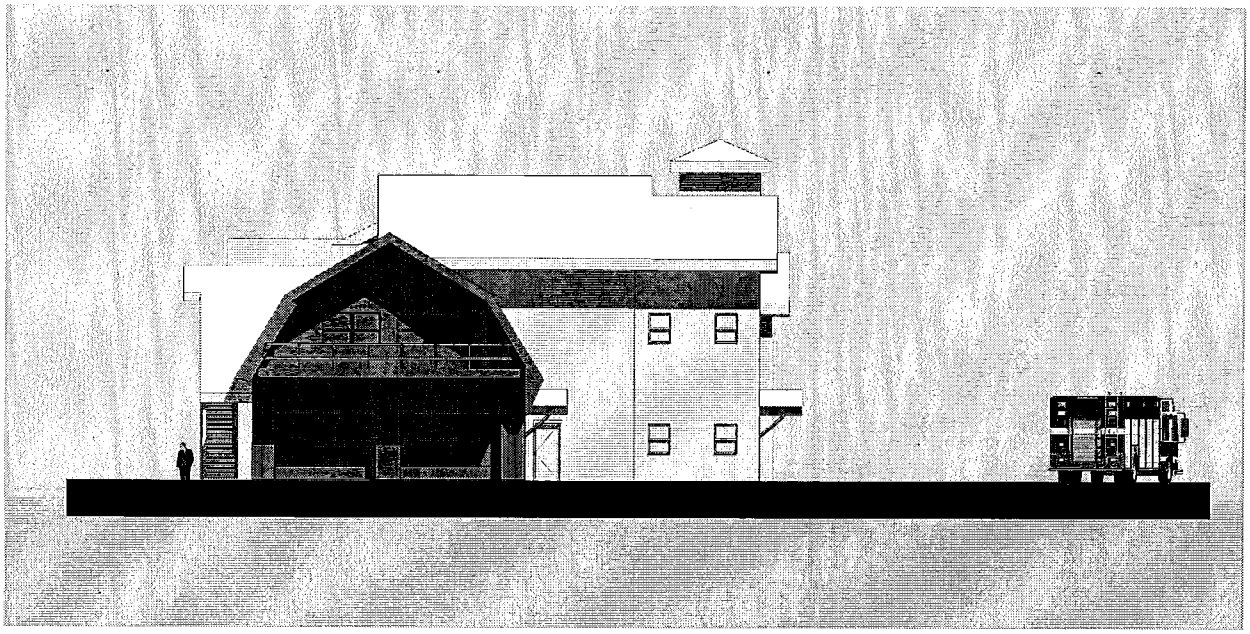


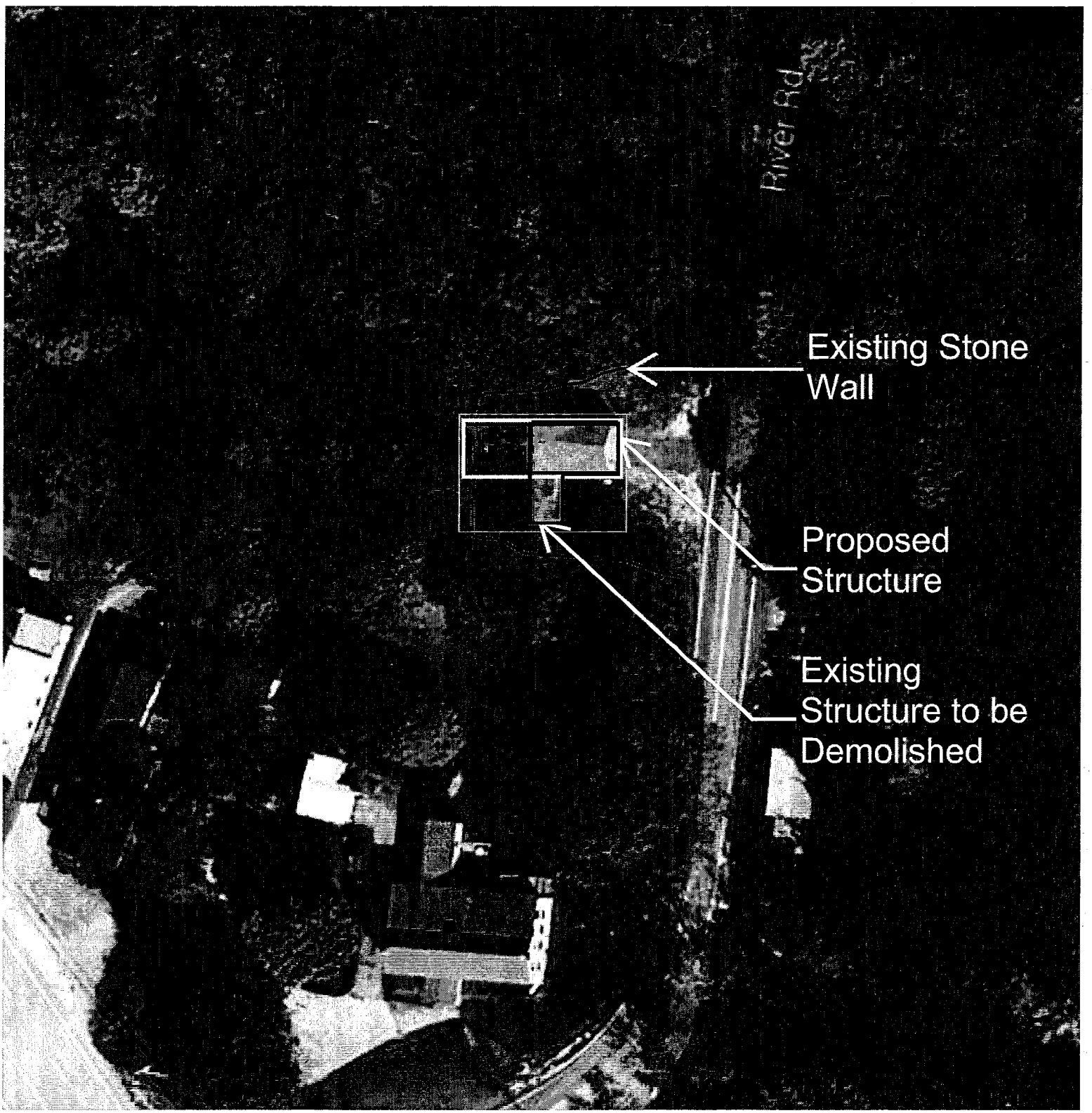


DORE & WHITTIER
ARCHITECTS, INC.

OPTION 1, CAPITAL
IMPROVEMENTS TO
EXISTING BUILDING & NEW
APP. BAY AT SITE 2



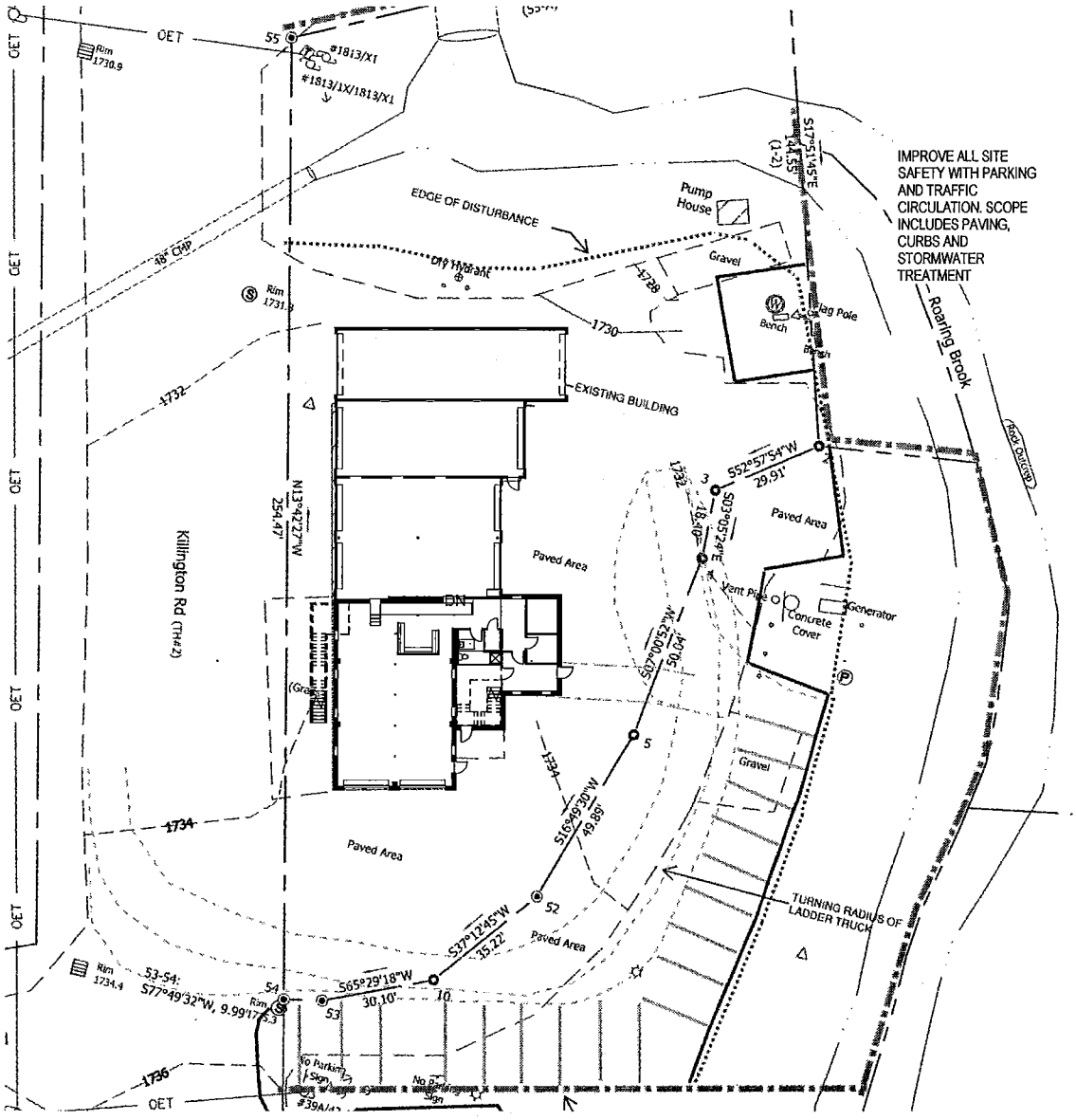



River Rd
Existing Stone Wall
Proposed Structure
Existing Structure to be Demolished

DORE & WHITTIER ARCHITECTS, INC.

OPTION 1a, CAPITAL IMPROVEMENTS TO EXISTING BUILDING, (1) NEW APP. BAY

SITE PLAN



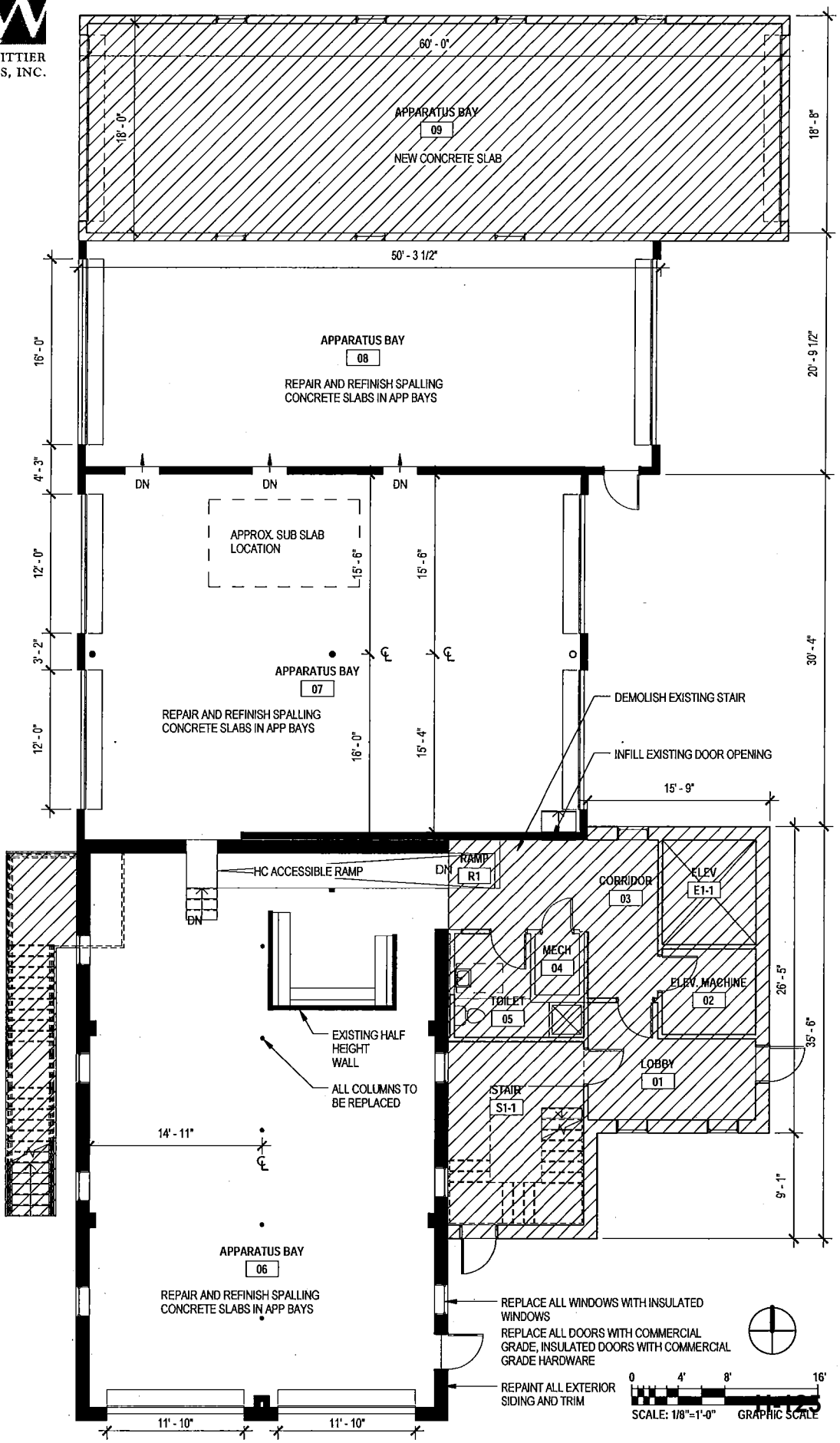
0 15' 30' 50'

SCALE: 1"=30'-0"

DORE & WHITTIER ARCHITECTS, INC.

OPTION 1a, CAPITAL IMPROVEMENTS TO EXISTING BUILDING, (1) NEW APP. BAY

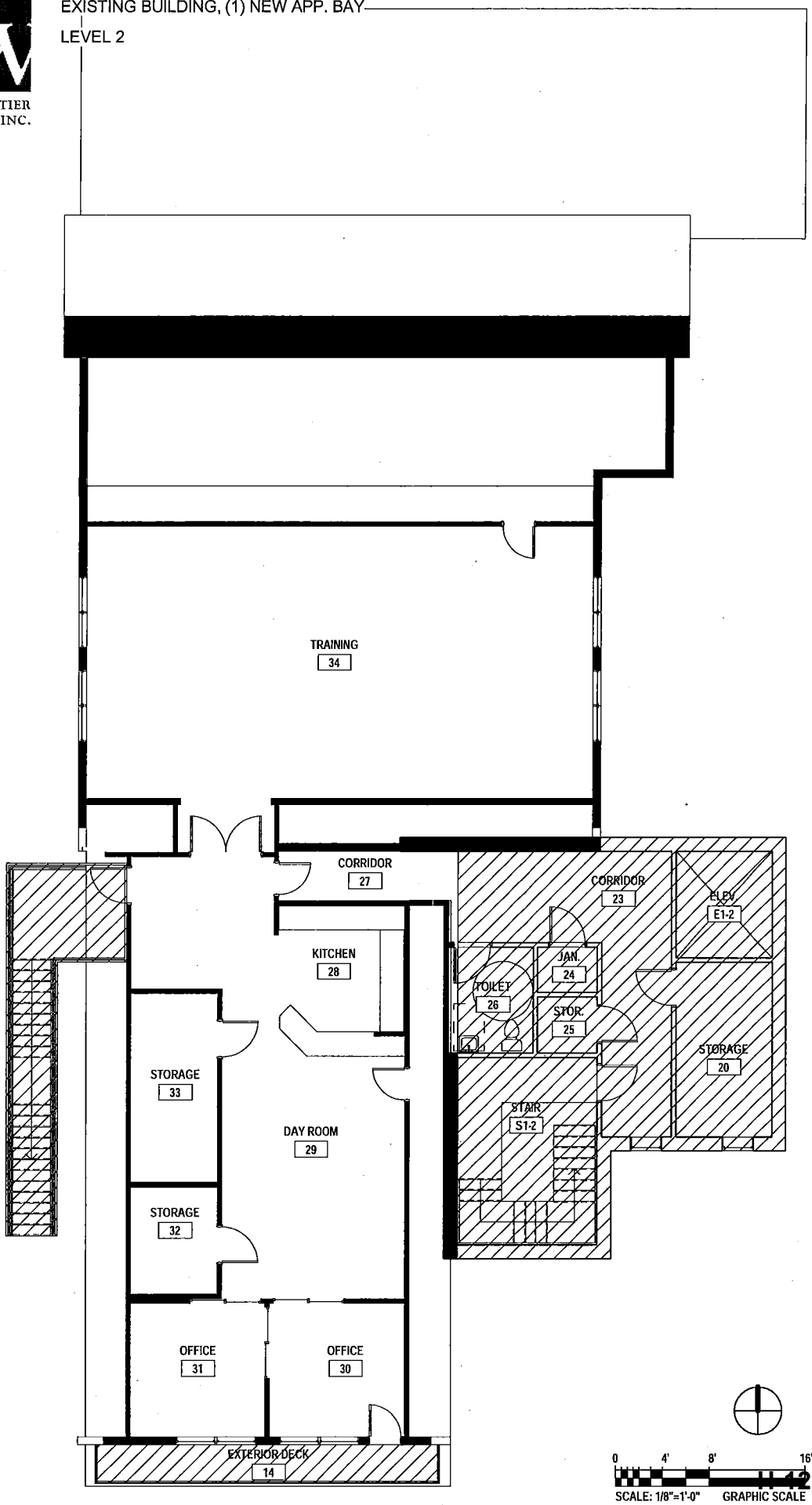
LEVEL 1



DORE & WHITTIER
ARCHITECTS, INC.

OPTION 1a, CAPITAL IMPROVEMENTS TO
EXISTING BUILDING, (1) NEW APP. BAY

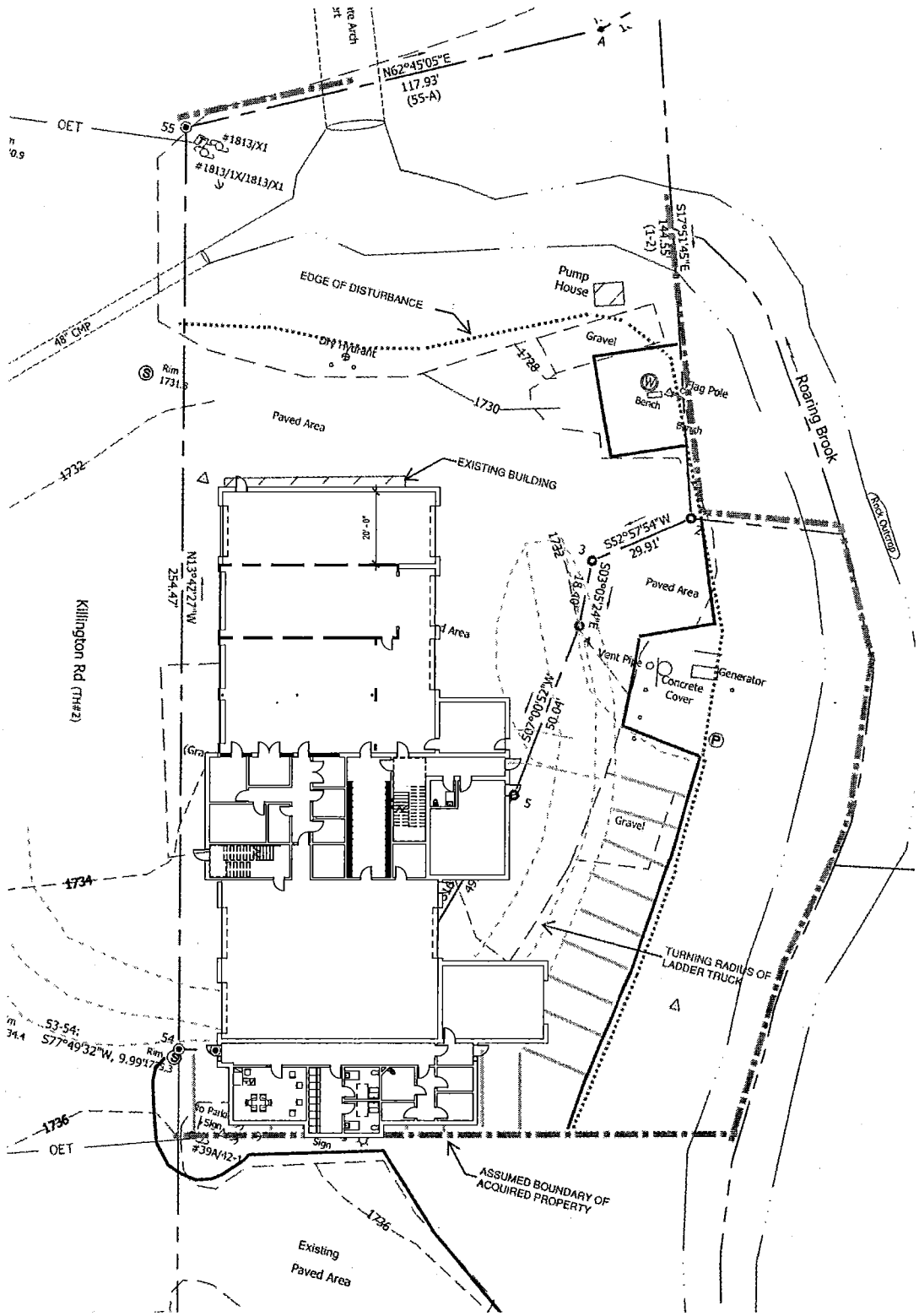
LEVEL 2



DORE & WHITTIER ARCHITECTS, INC.

OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

SITE

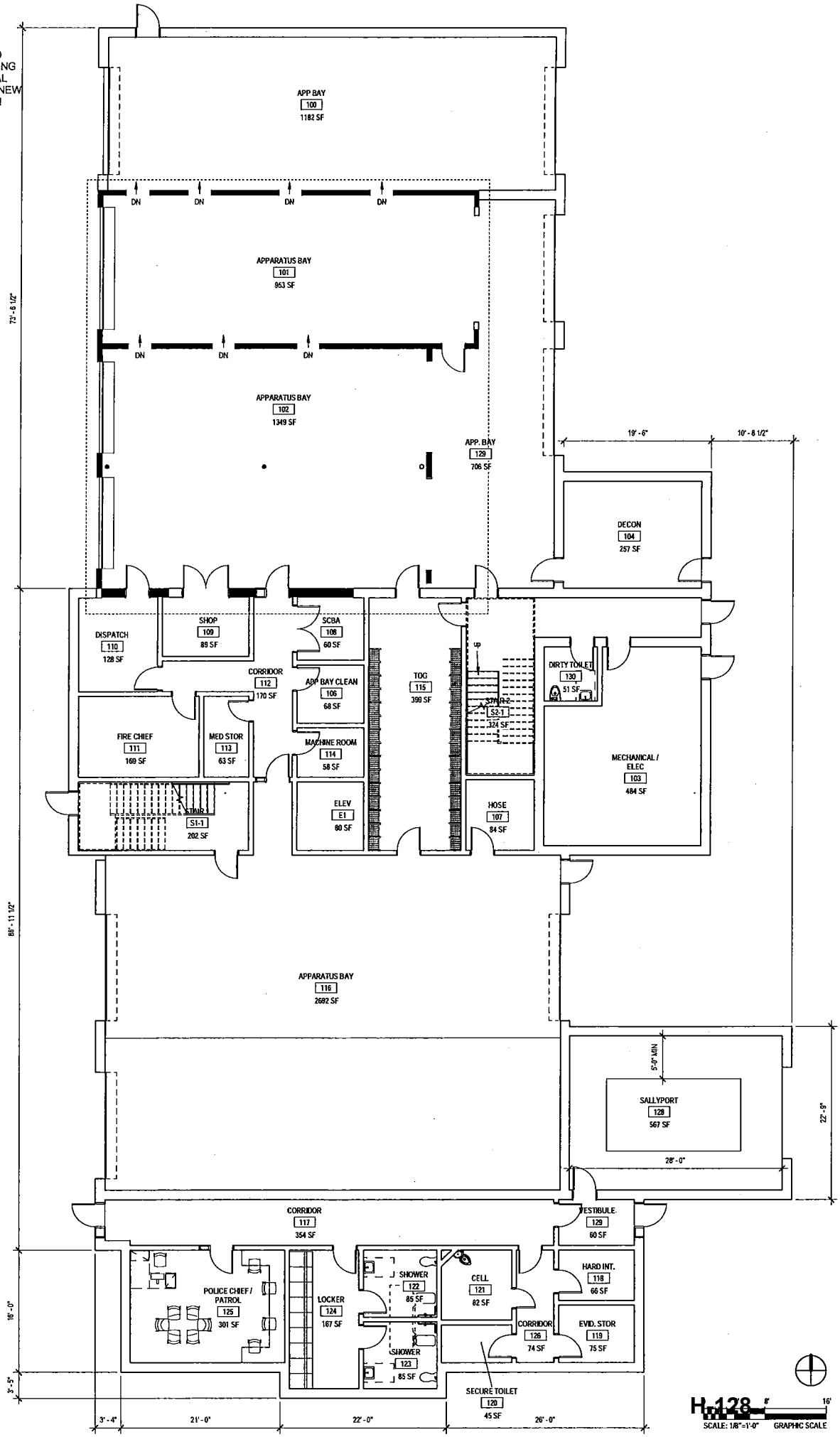


SCALE: 1"=20'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

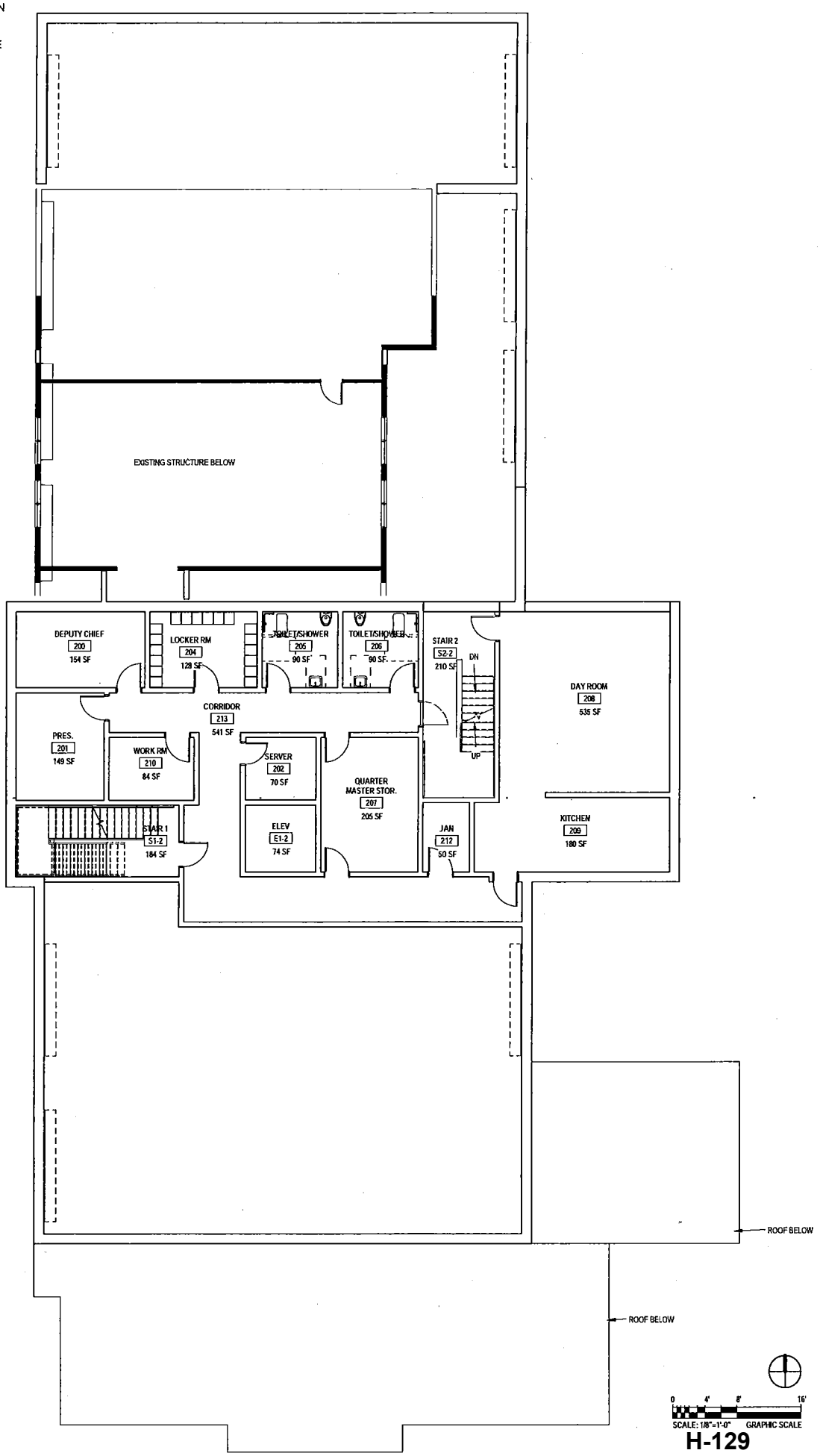
LEVEL 1



DORE & WHITTIER ARCHITECTS, INC.

OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

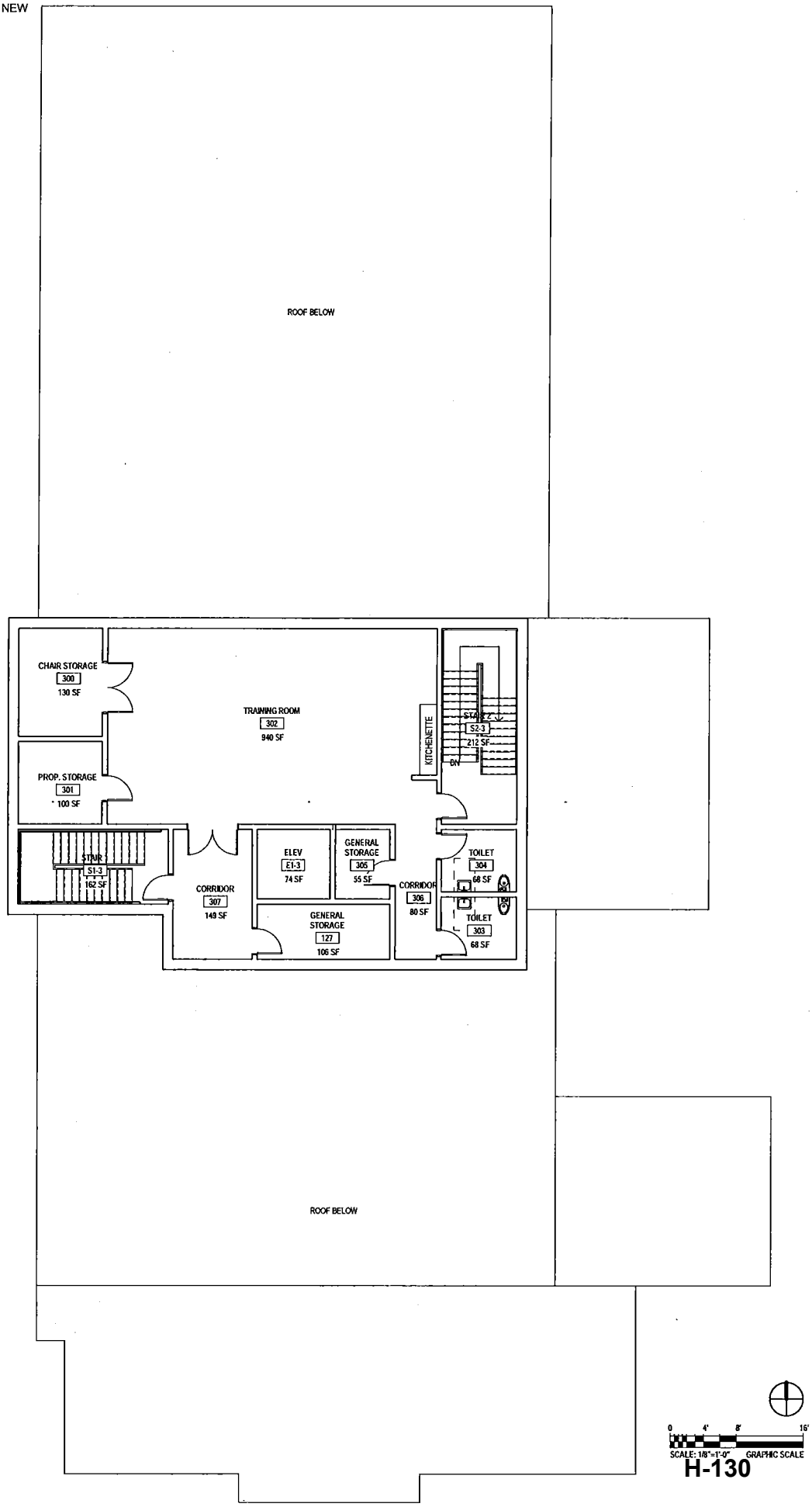
LEVEL 2



DORE & WHITTIER ARCHITECTS, INC.

OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

LEVEL 3



0 4' 8' 16'
SCALE: 1/8"=1'-0" GRAPHIC SCALE

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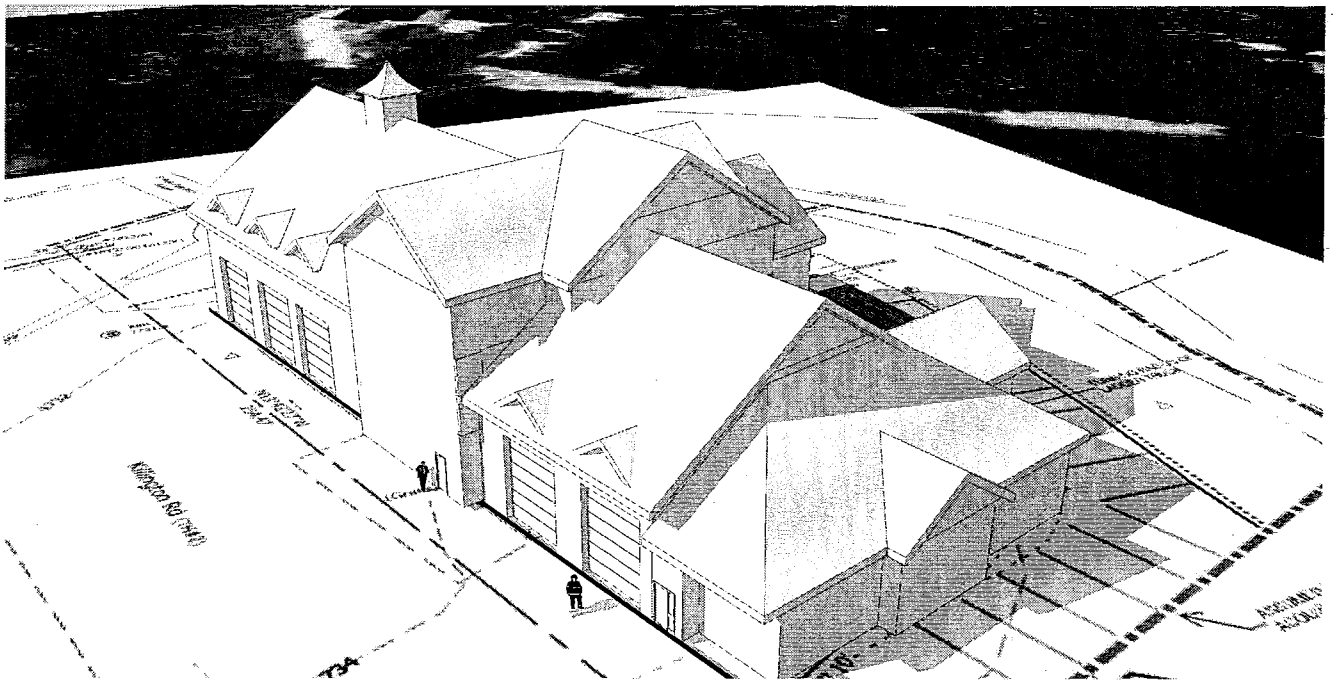
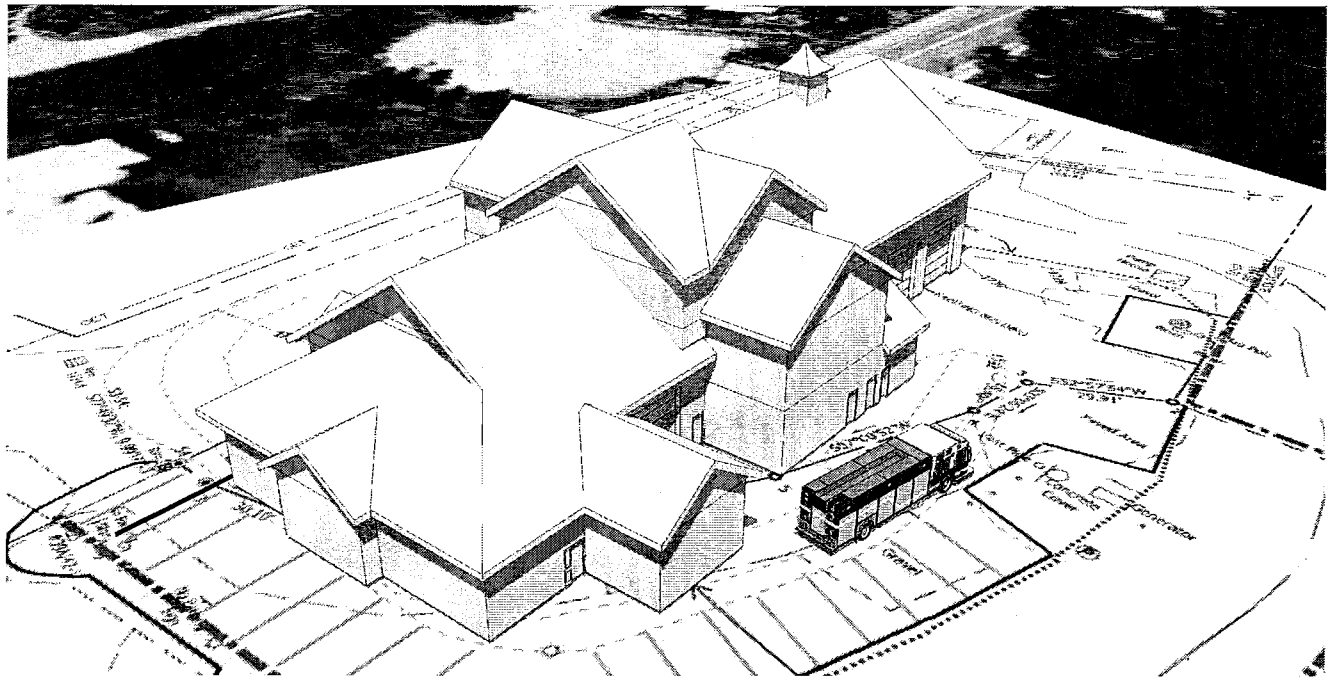
DORE & WHITTIER ARCHITECTS, INC.

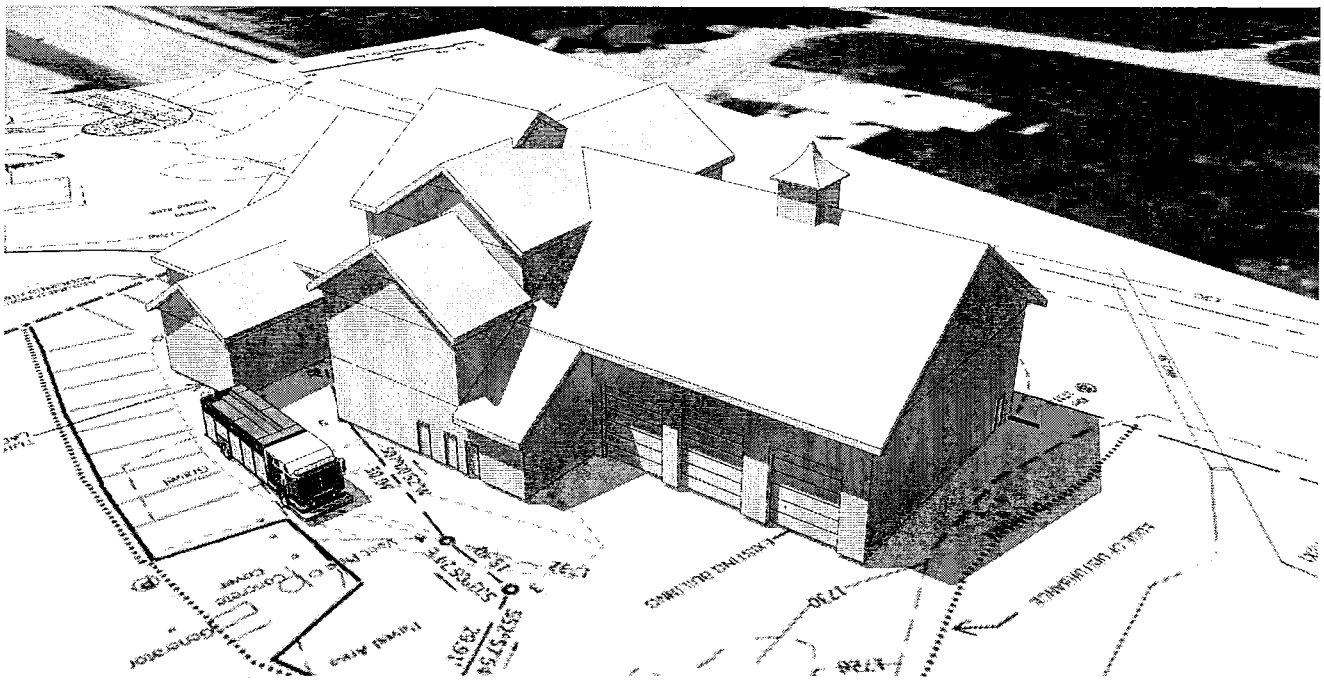
OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

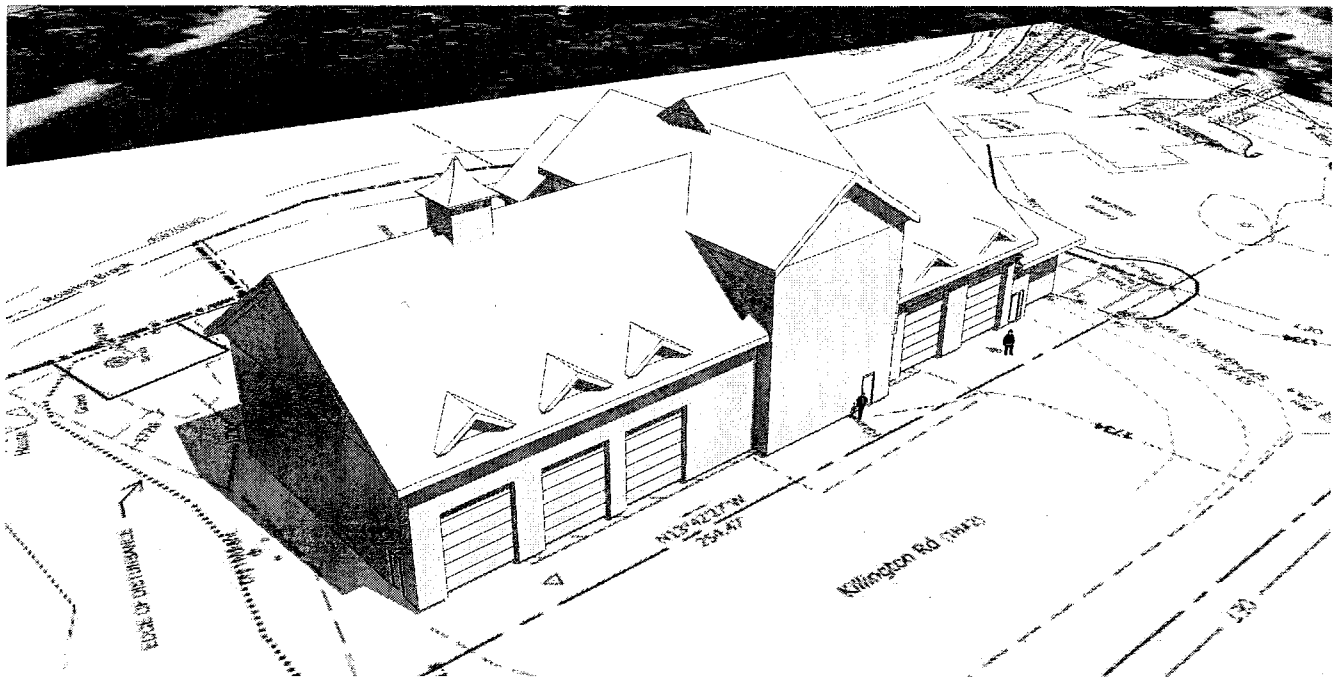




DORE & WHITTIER ARCHITECTS, INC.

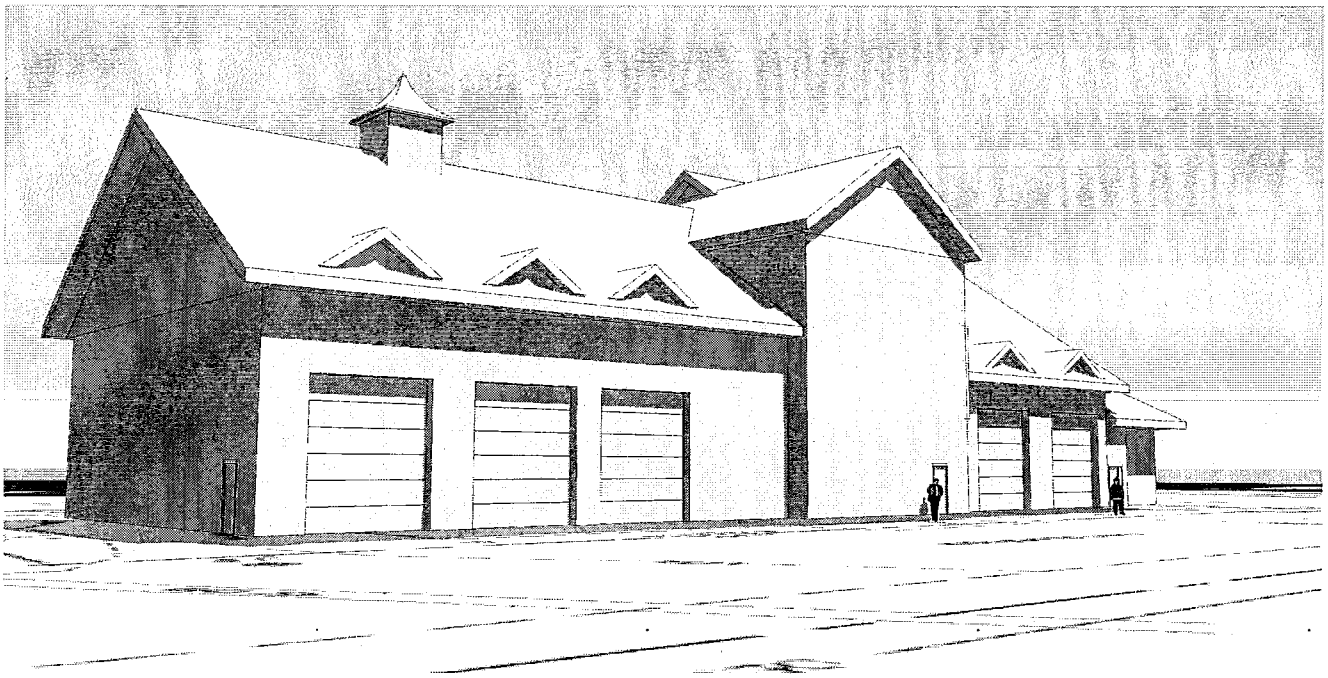
OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION





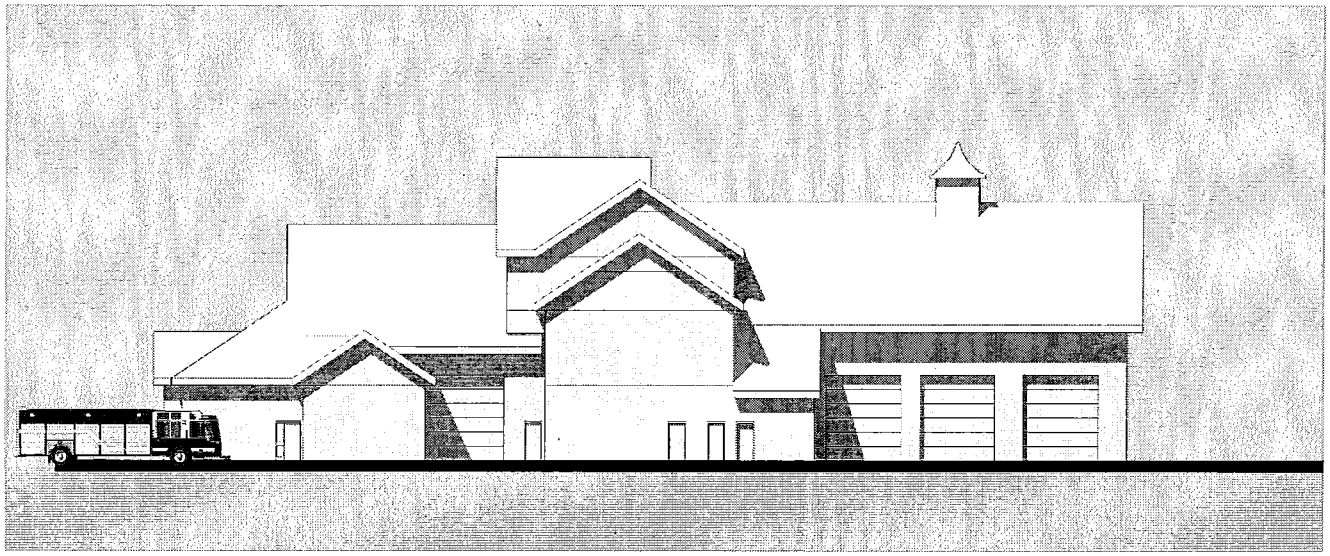
DORE & WHITTIER ARCHITECTS, INC.

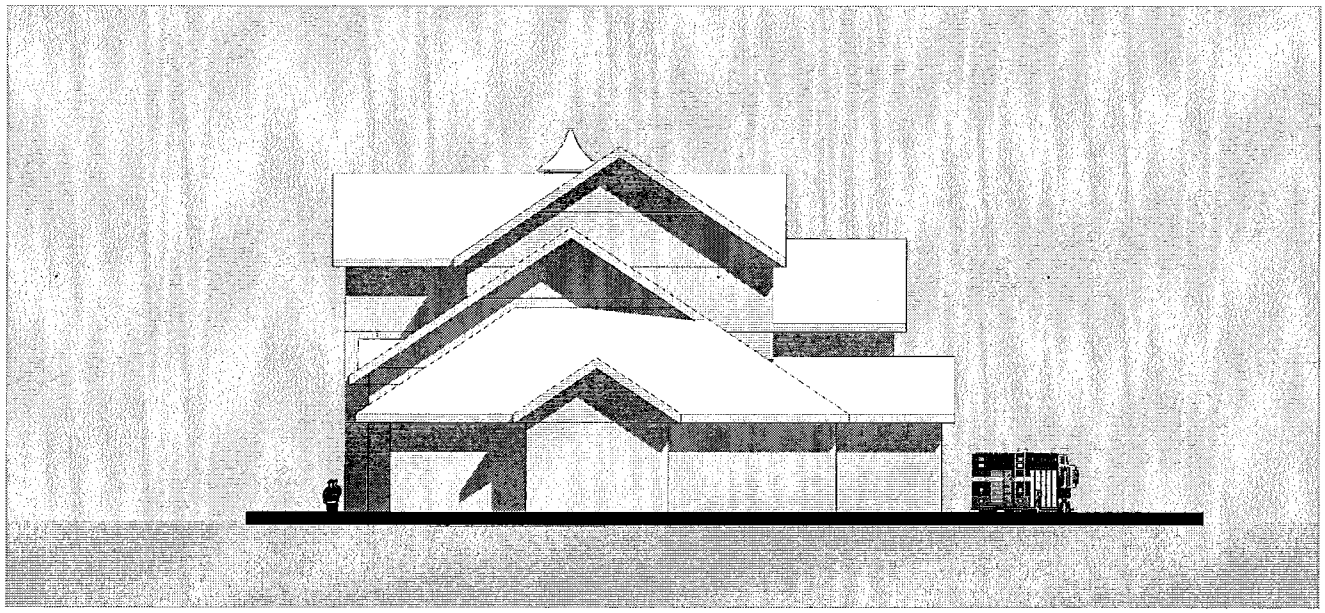
OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION

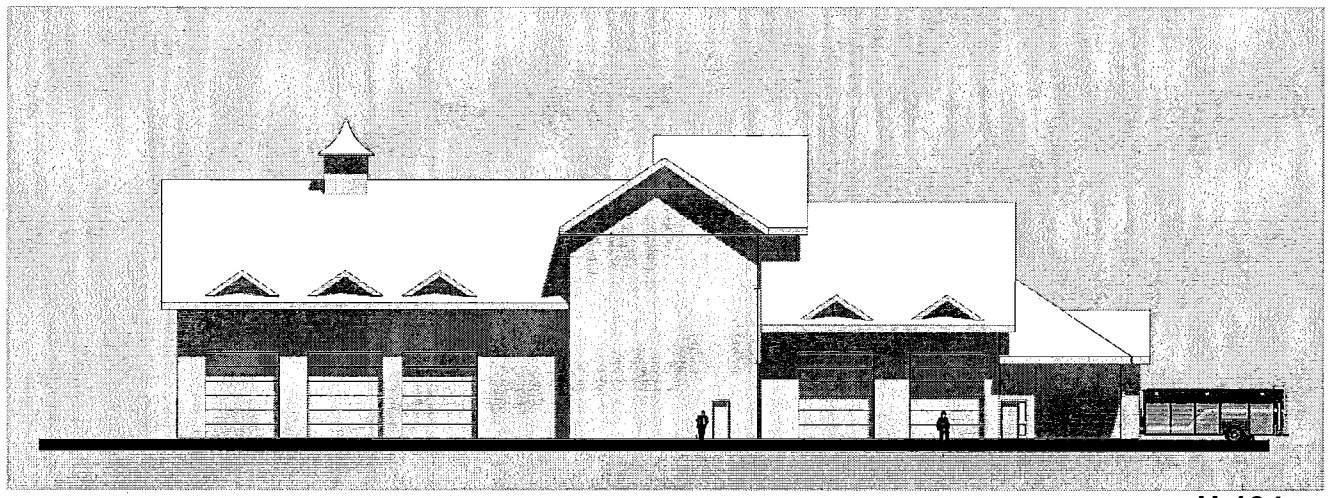


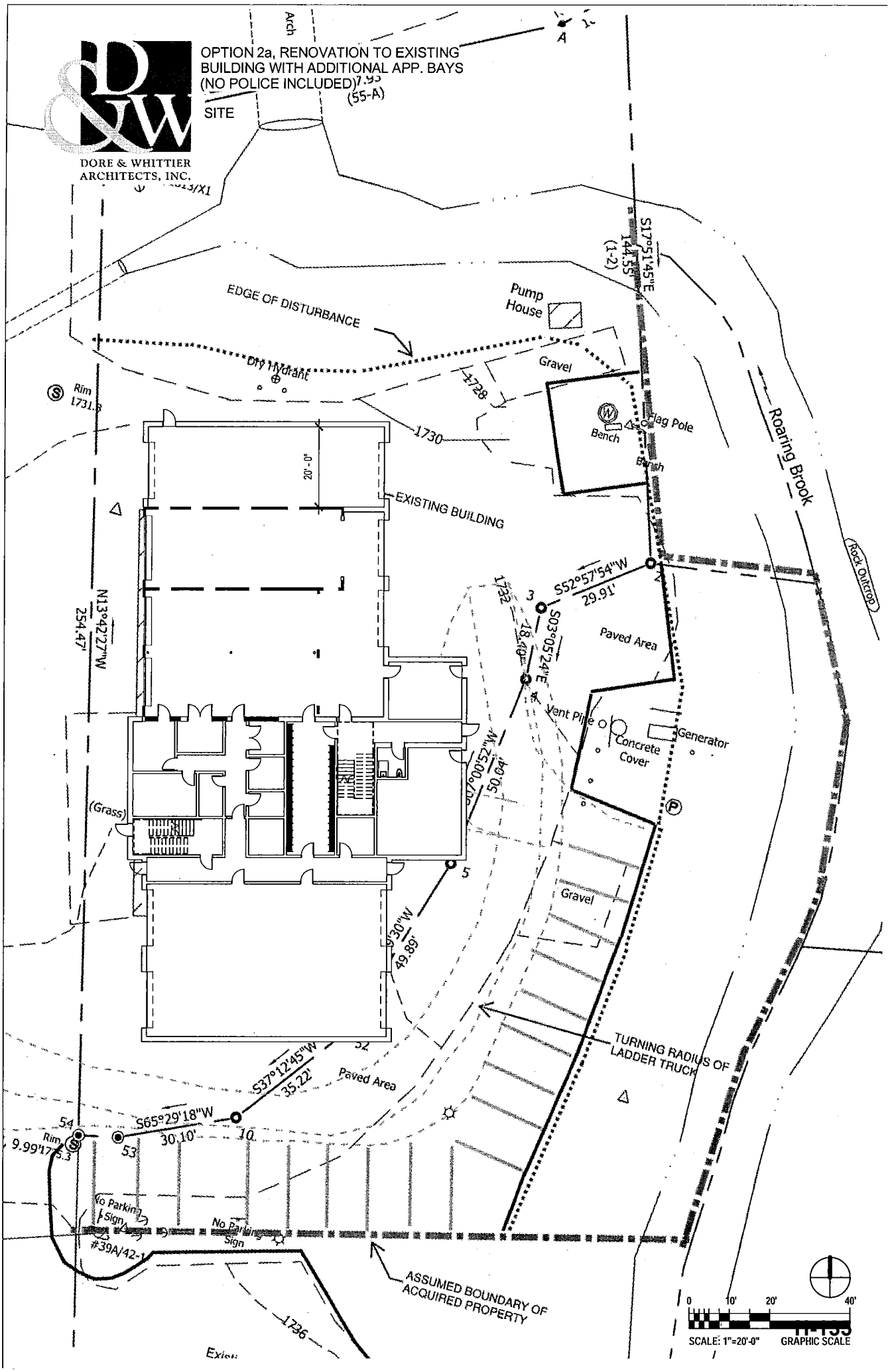
DORE & WHITTIER ARCHITECTS, INC.

OPTION 2, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS AND NEW POLICE STATION





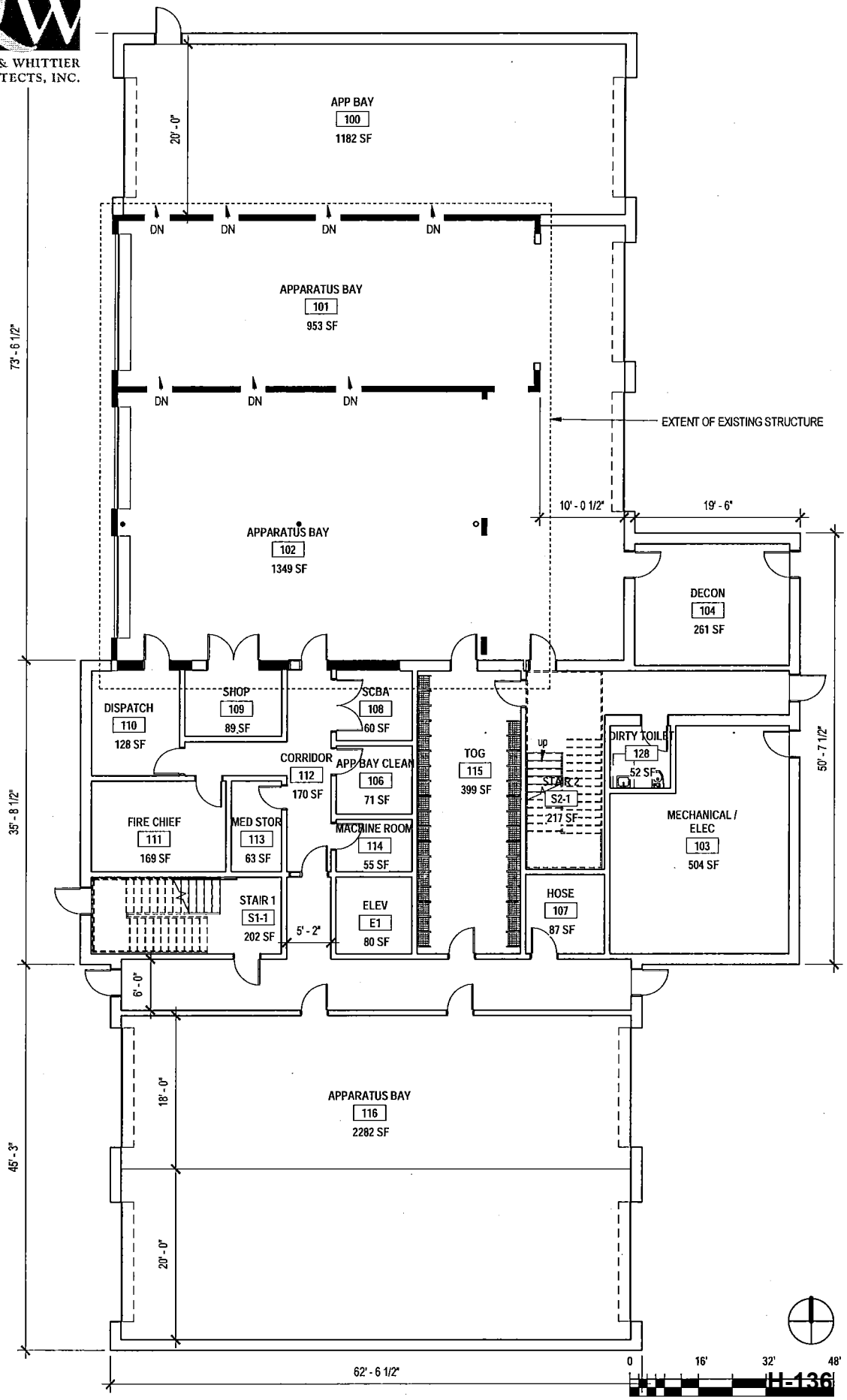



OPTION 2a, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS (NO POLICE INCLUDED)
SITE
DORE & WHITTIER ARCHITECTS, INC.
EDGE OF DISTURBANCE
Pump House
Gravel
Dry Hydrant
Rim 1731.5
1728
1730
Bench
Flag Pole
Roaring Brook
Rock Outcrop
EXISTING BUILDING
20'-0"
S17°51'45"E
144.55'
(1-2)
S52°57'54"W
29.91'
S03°05'24"E
18.40'
Paved Area
Vent Pipe
Concrete Cover
Generator
N13°42'27"W
254.47'
S07°00'52"W
50.64'
(Grass)
Gravel
S19°30"W
49.89'
TURNING RADIUS OF LADDER TRUCK
S37°12'45"W
35.22'
Paved Area
S65°29'18"W
30.10'
Rim
No Parking Sign
#39A/42-1
ASSUMED BOUNDARY OF ACQUIRED PROPERTY
1736
SCALE: 1"=20'-0"
GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 2a, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS (NO POLICE INCLUDED)

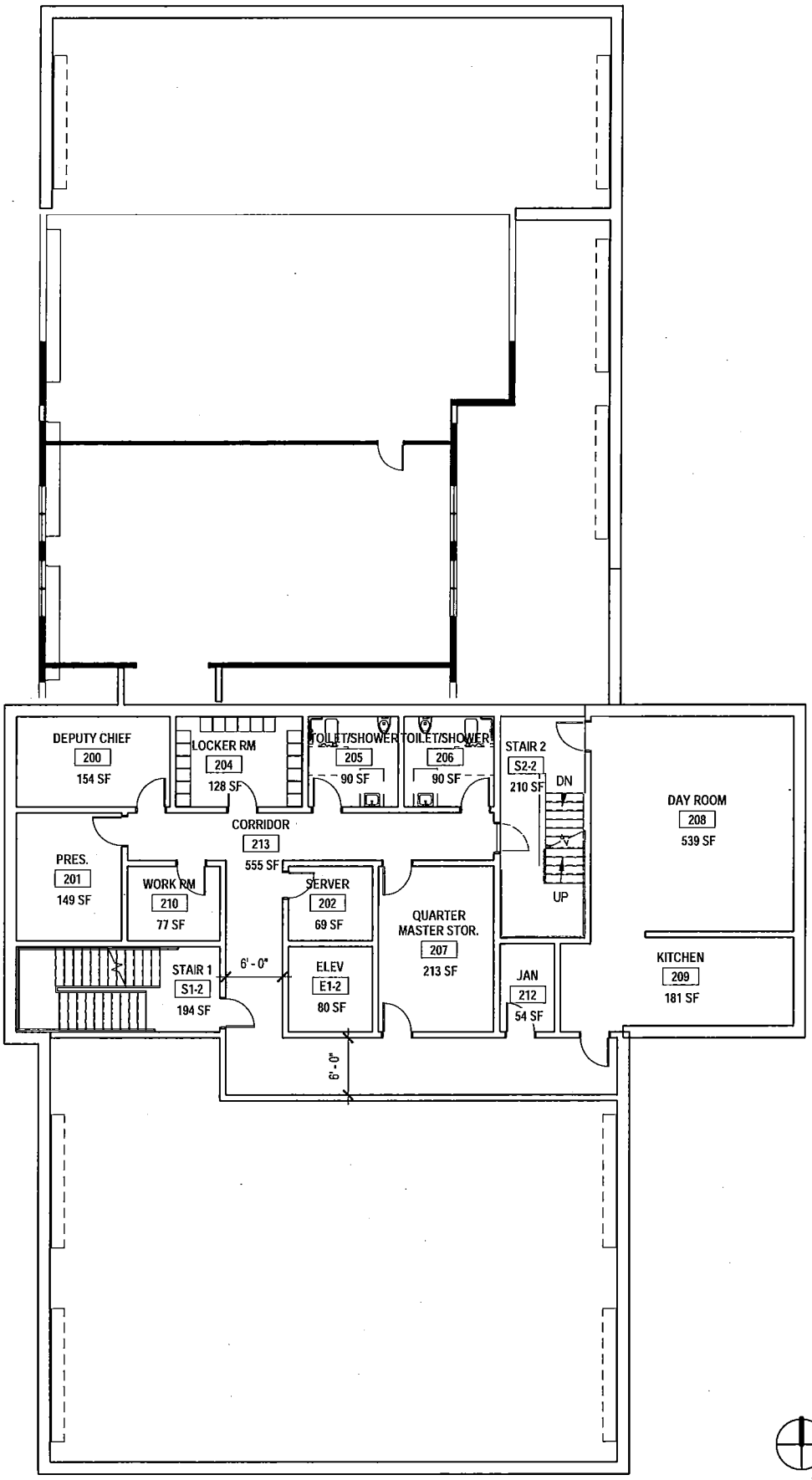
LEVEL 1



DORE & WHITTIER ARCHITECTS, INC.

OPTION 2a, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS (NO POLICE INCLUDED)

LEVEL 2



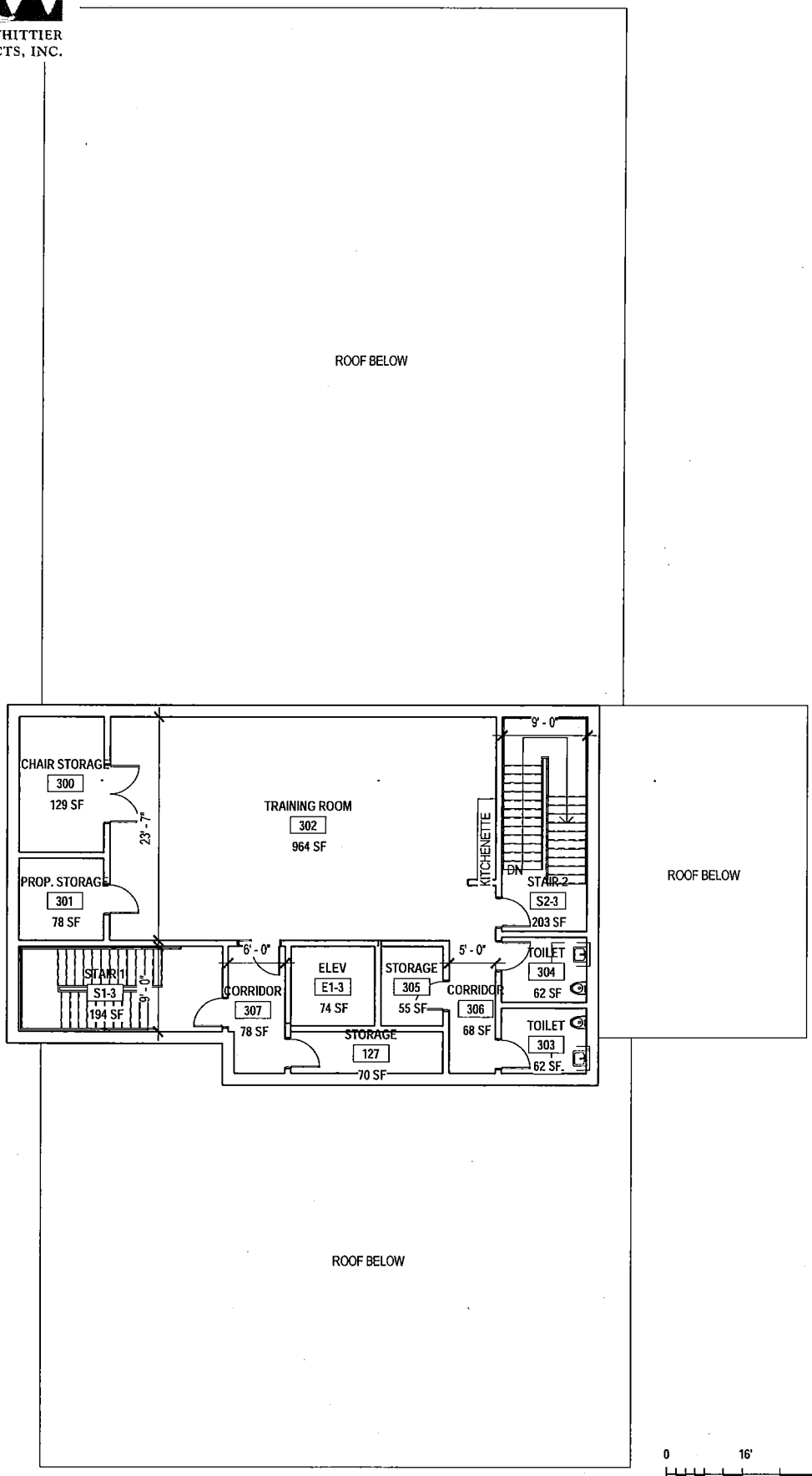
0 16' 32' 48'

SCALE: 3/32"=1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 2a, RENOVATION TO EXISTING BUILDING WITH ADDITIONAL APP. BAYS (NO POLICE INCLUDED)

LEVEL 3



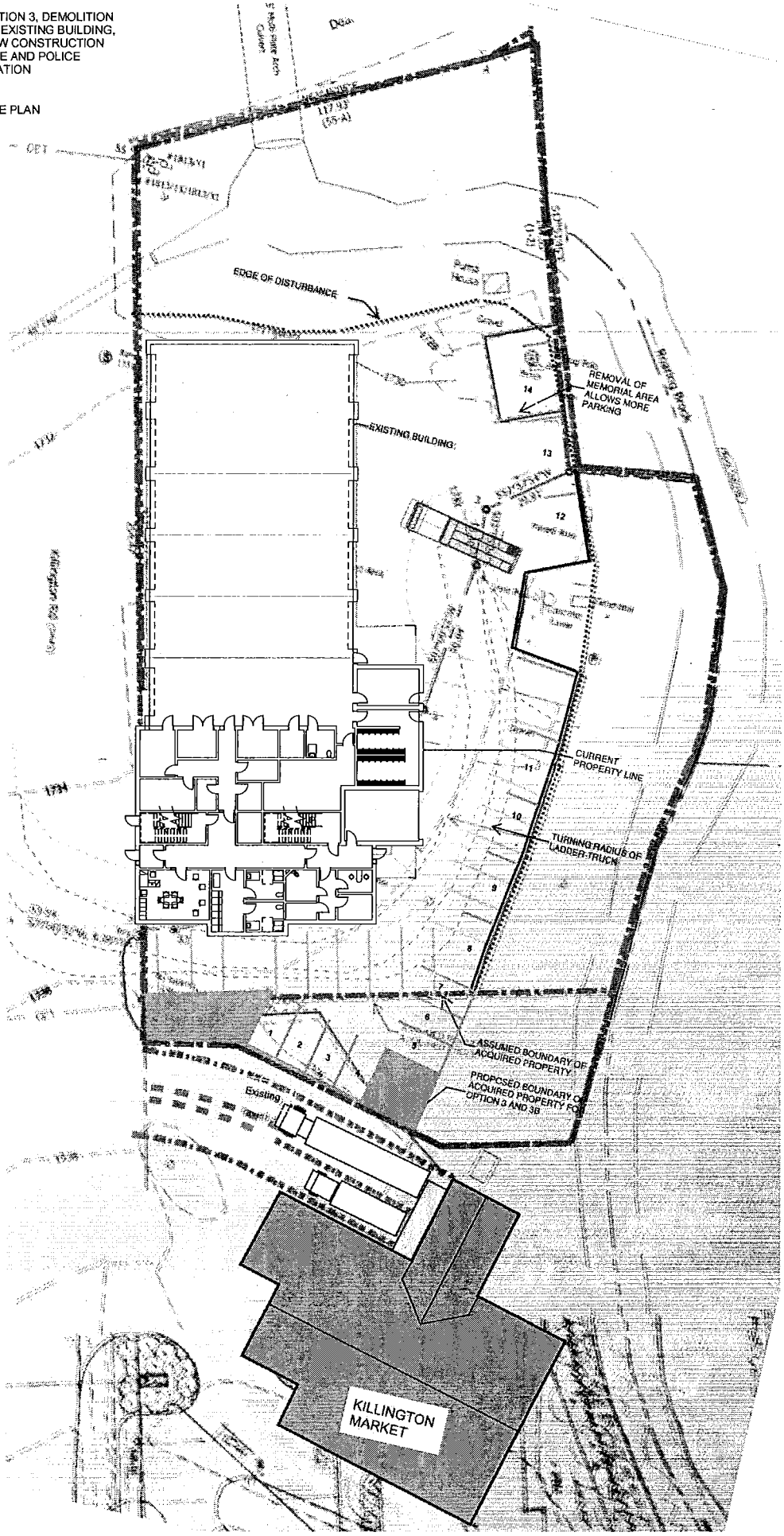
0 16' 32' 48'

SCALE: 3/32"=1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

SITE PLAN



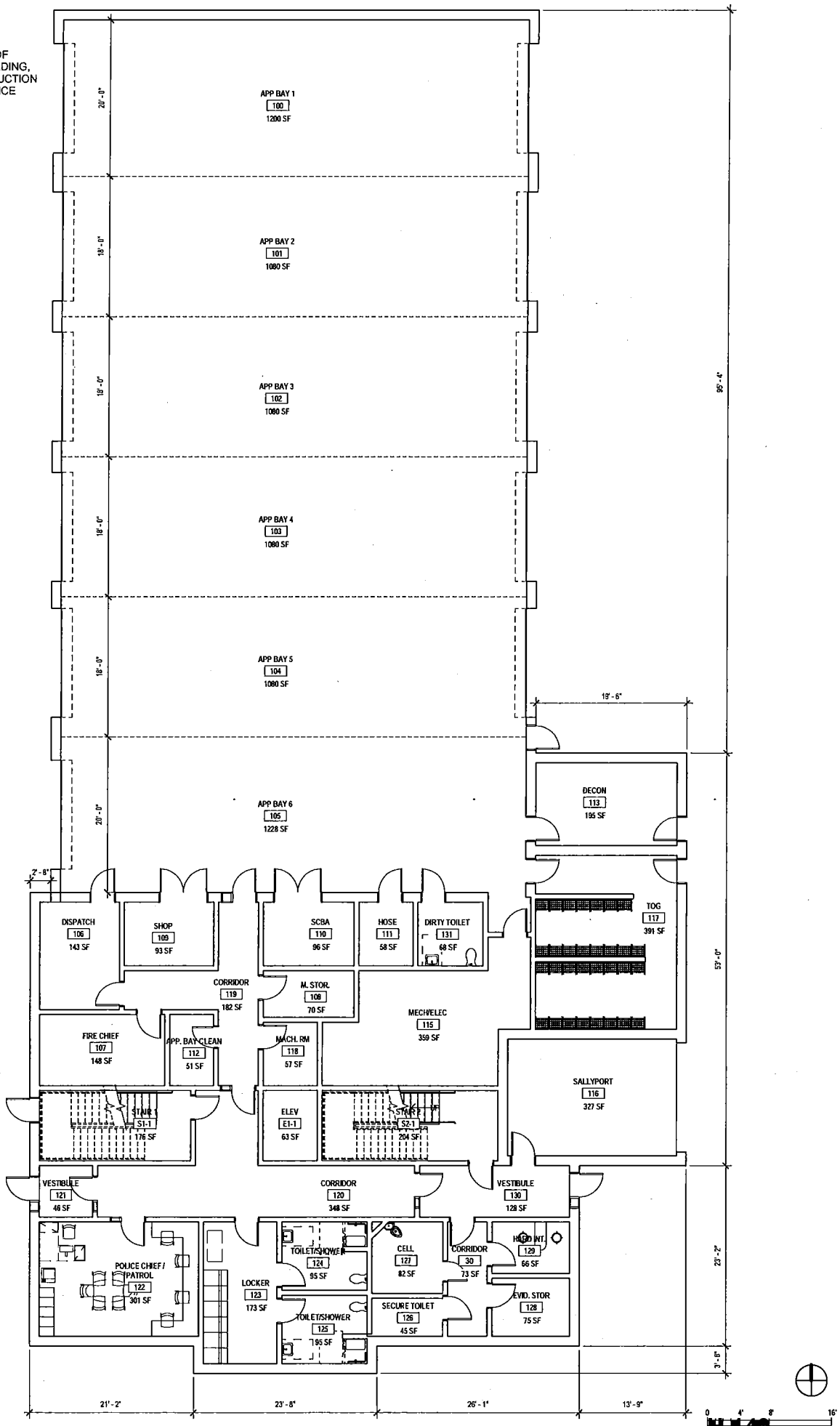
0 10' 20' 40'

SCALE: 1"=20'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3,
DEMOLITION OF
EXISTING BUILDING,
NEW CONSTRUCTION
FIRE AND POLICE
STATION

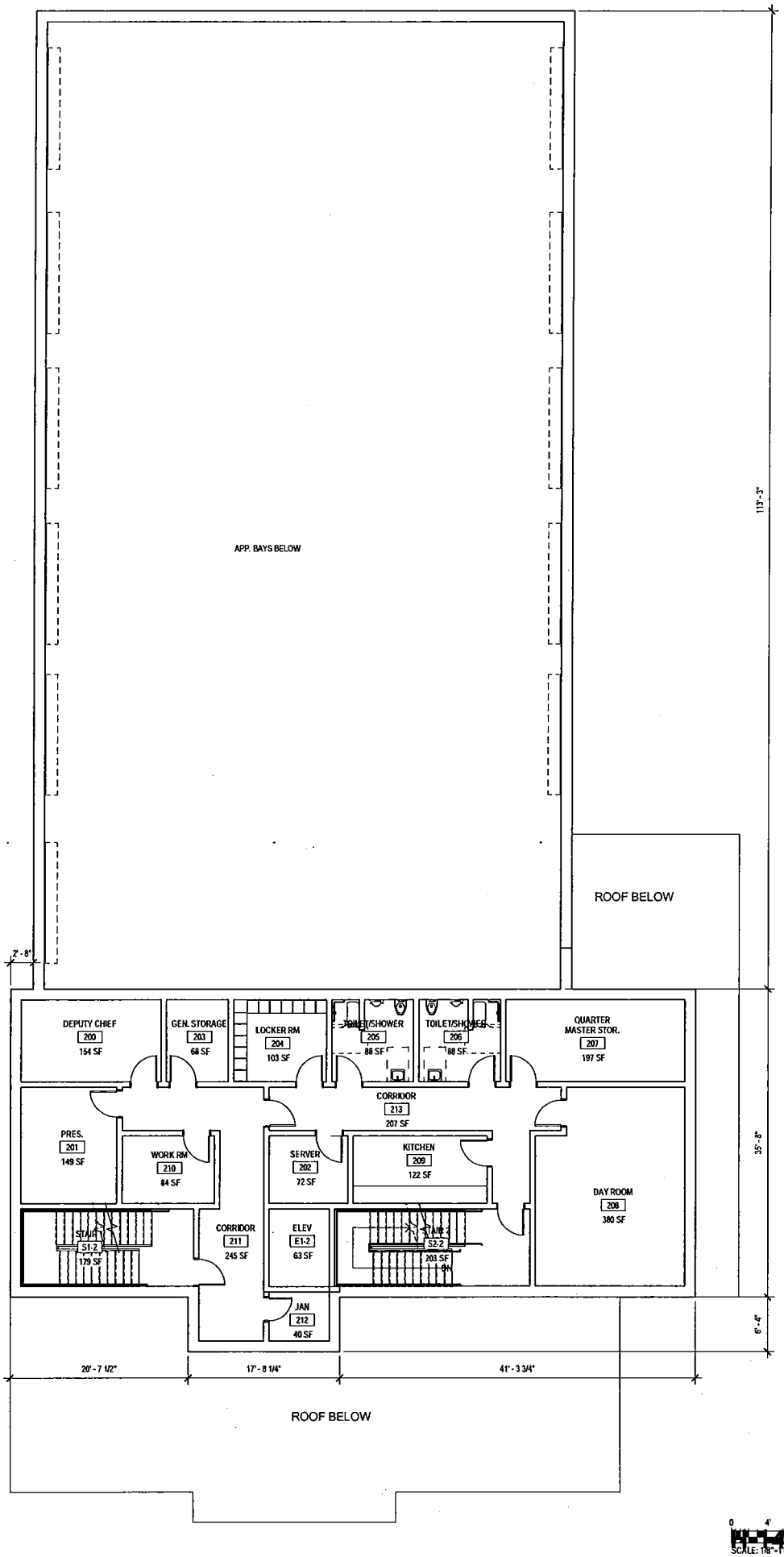
LEVEL 1



DORE & WHITTIER ARCHITECTS, INC.

OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

LEVEL 2



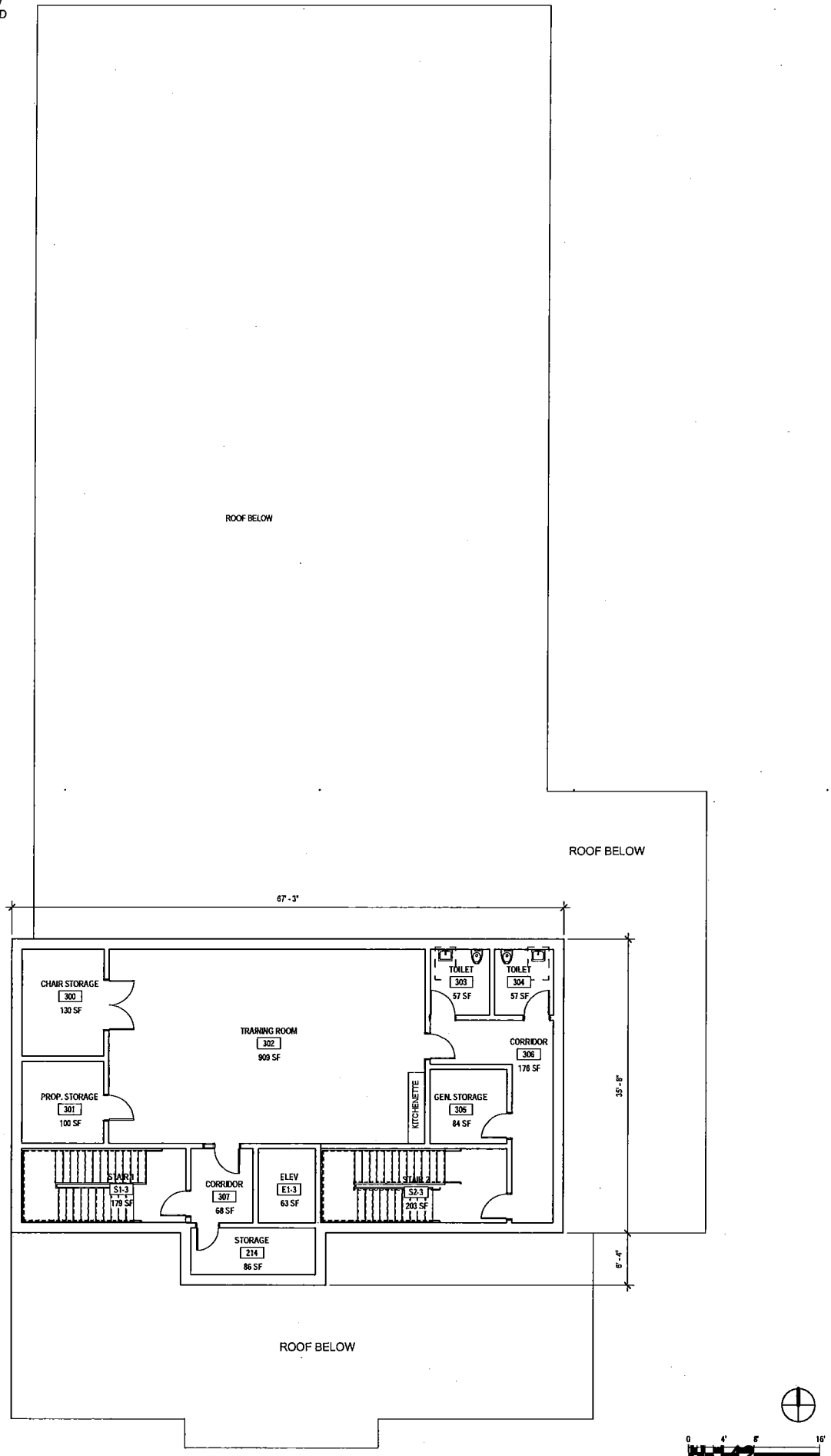
0 4' 8' 16'

SCALE: 1/8" = 1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

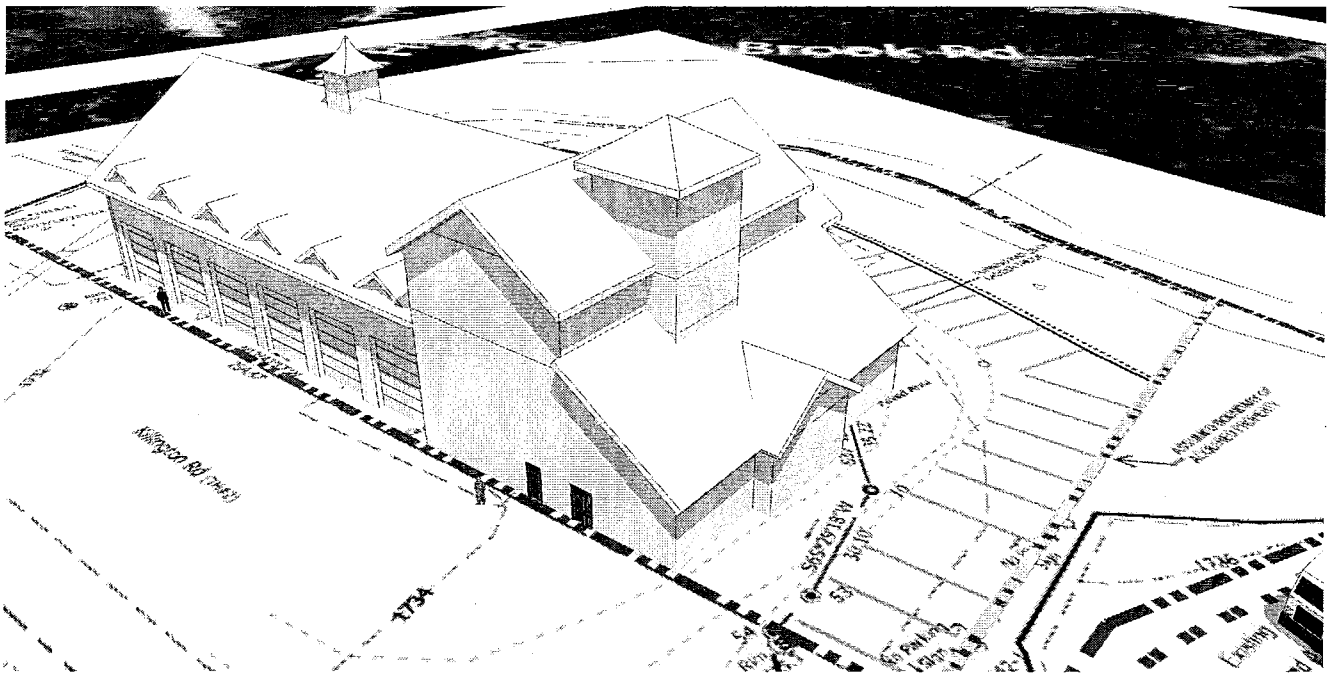
OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

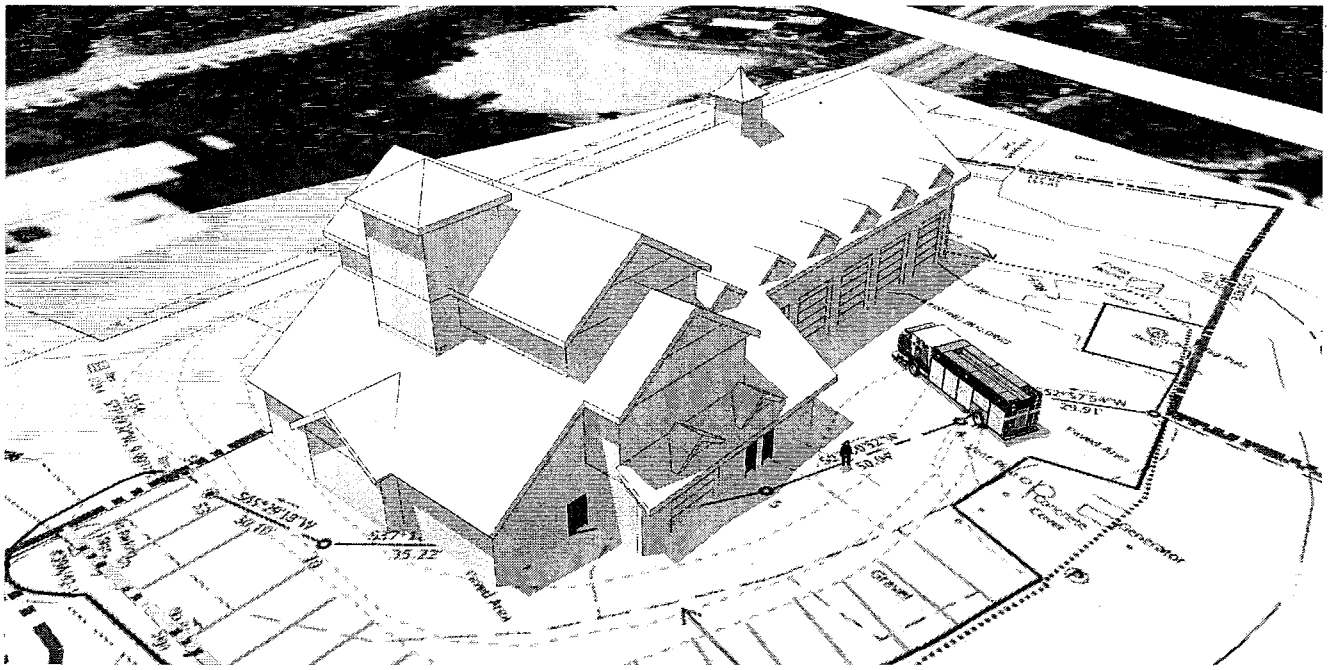
LEVEL 3



DORE & WHITTIER ARCHITECTS, INC.

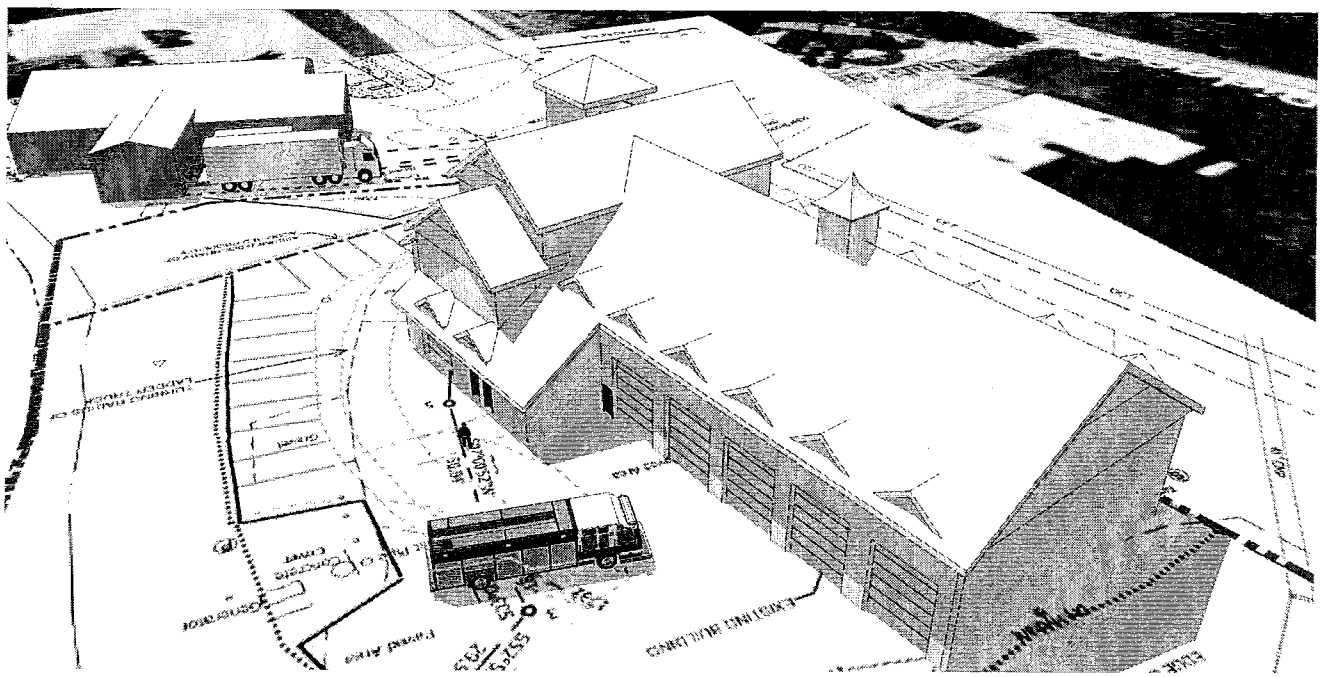
OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

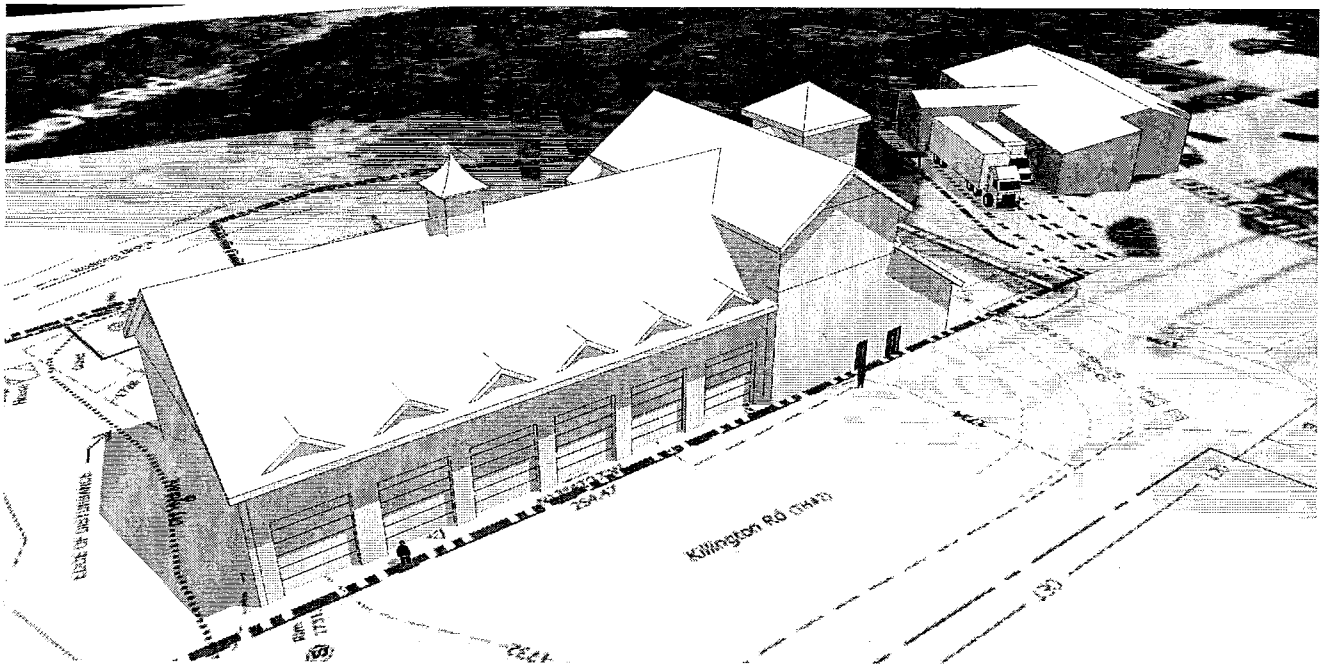




DORE & WHITTIER ARCHITECTS, INC.

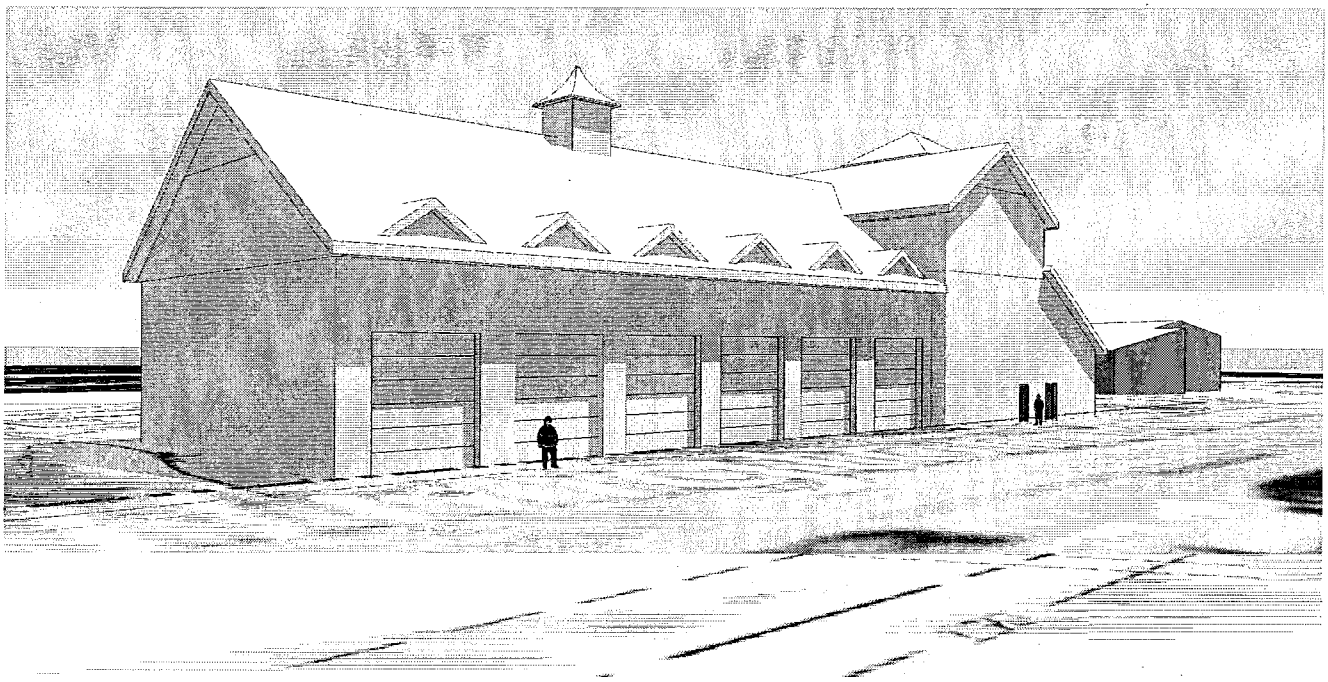
OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

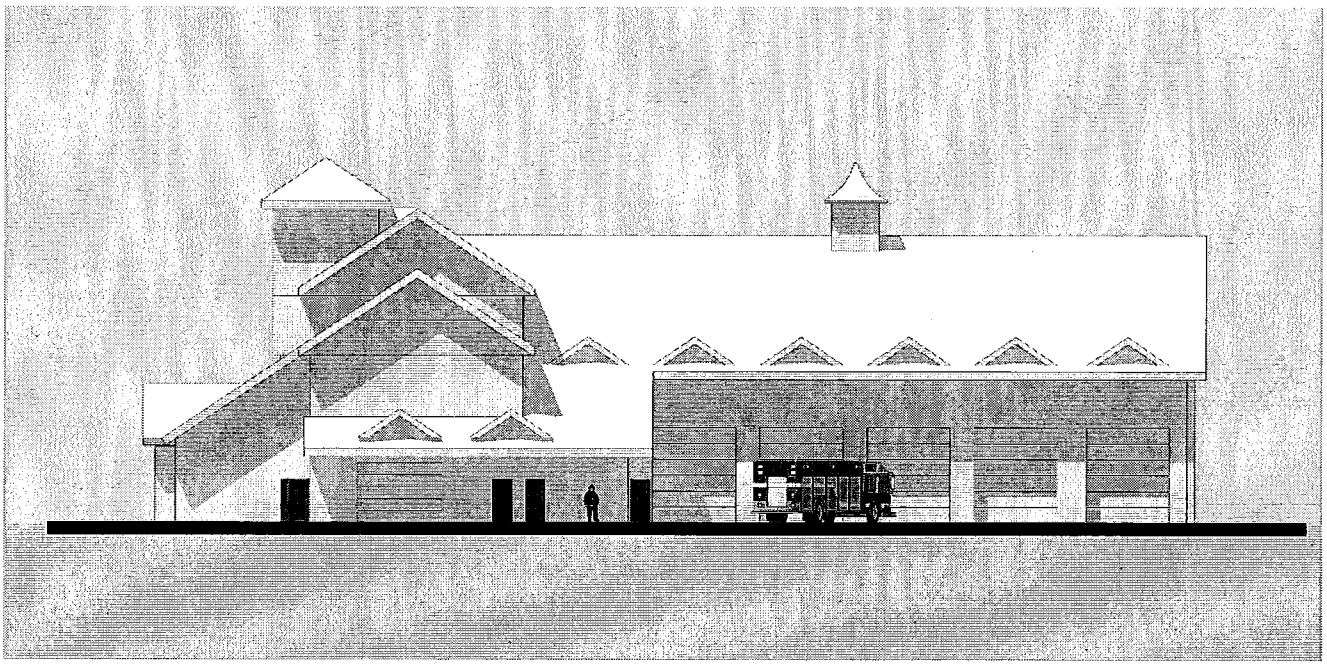




DORE & WHITTIER ARCHITECTS, INC.

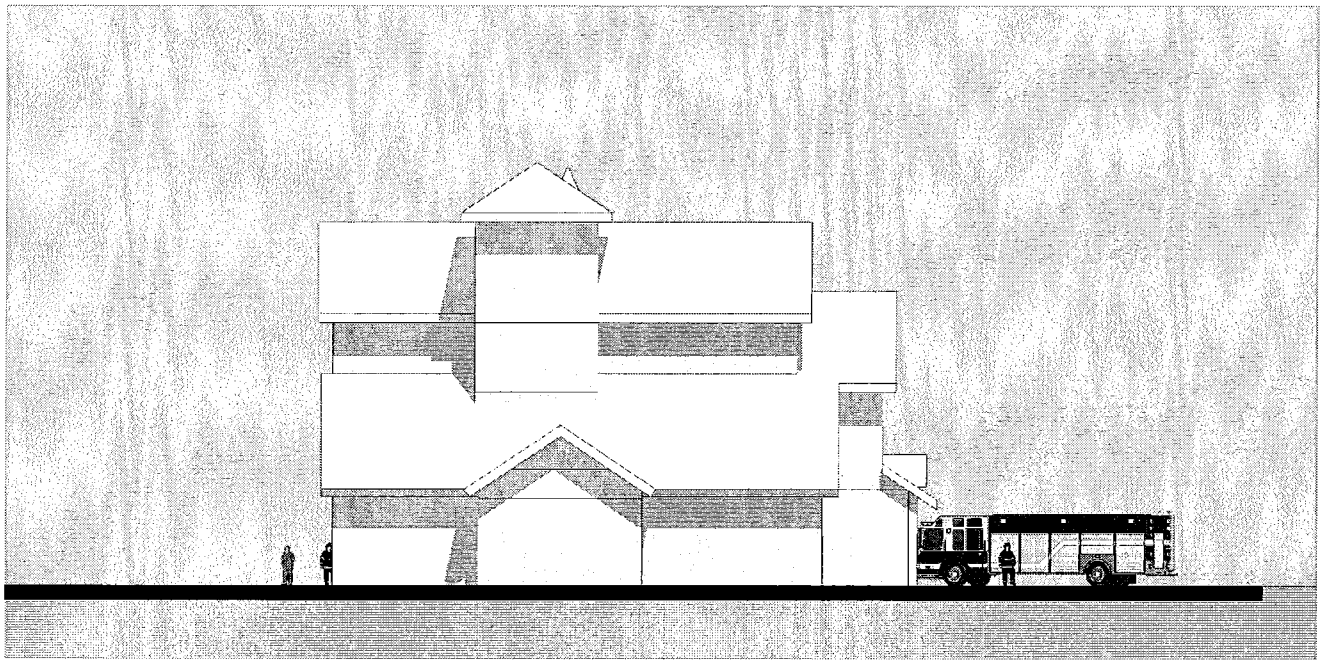
OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

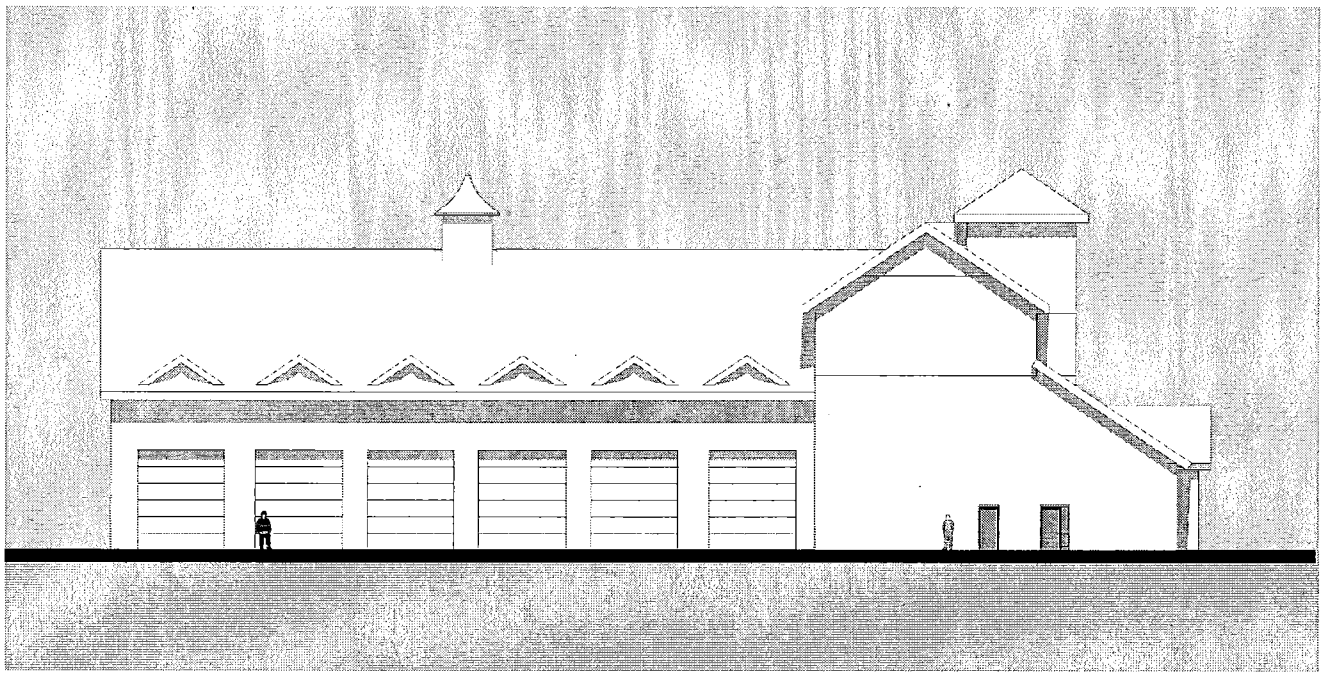




DORE & WHITTIER ARCHITECTS, INC.

OPTION 3, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE AND POLICE STATION

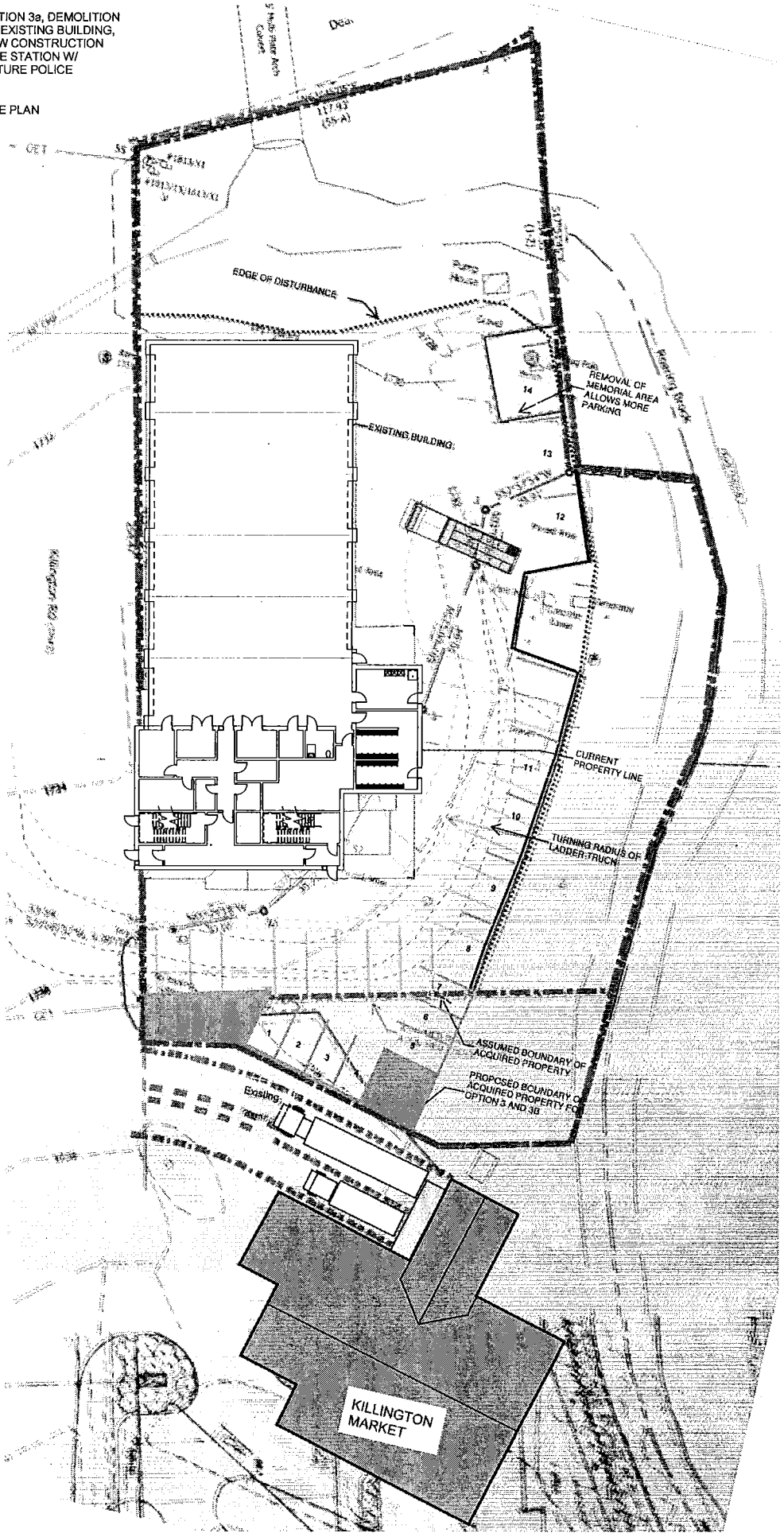




DORE & WHITTIER ARCHITECTS, INC.

OPTION 3a, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE STATION W/ FUTURE POLICE

SITE PLAN



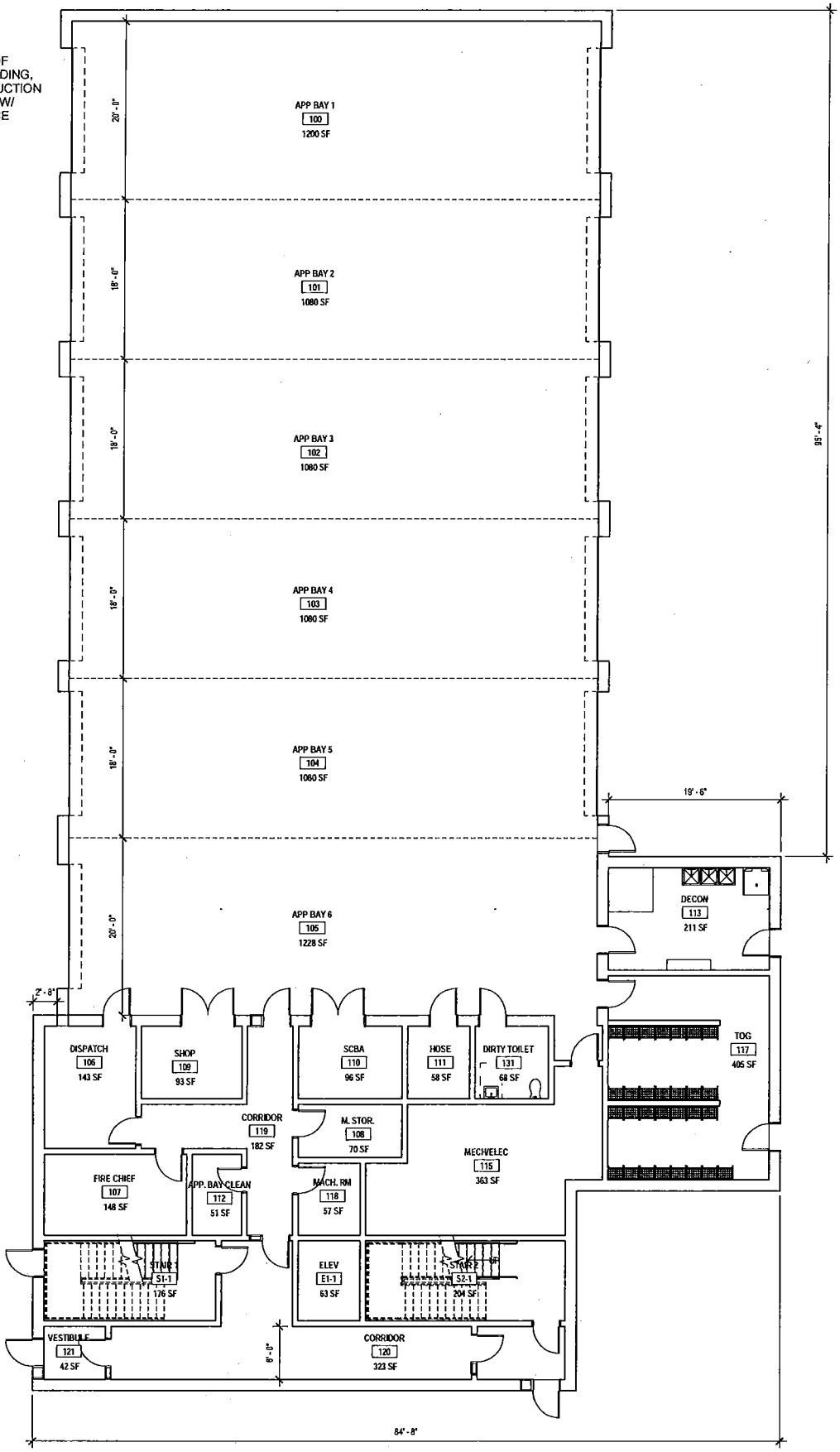
0 10' 20' 40'

SCALE: 1"=20'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3a,
DEMOLITION OF
EXISTING BUILDING,
NEW CONSTRUCTION
FIRE STATION W/
FUTURE POLICE

LEVEL 1

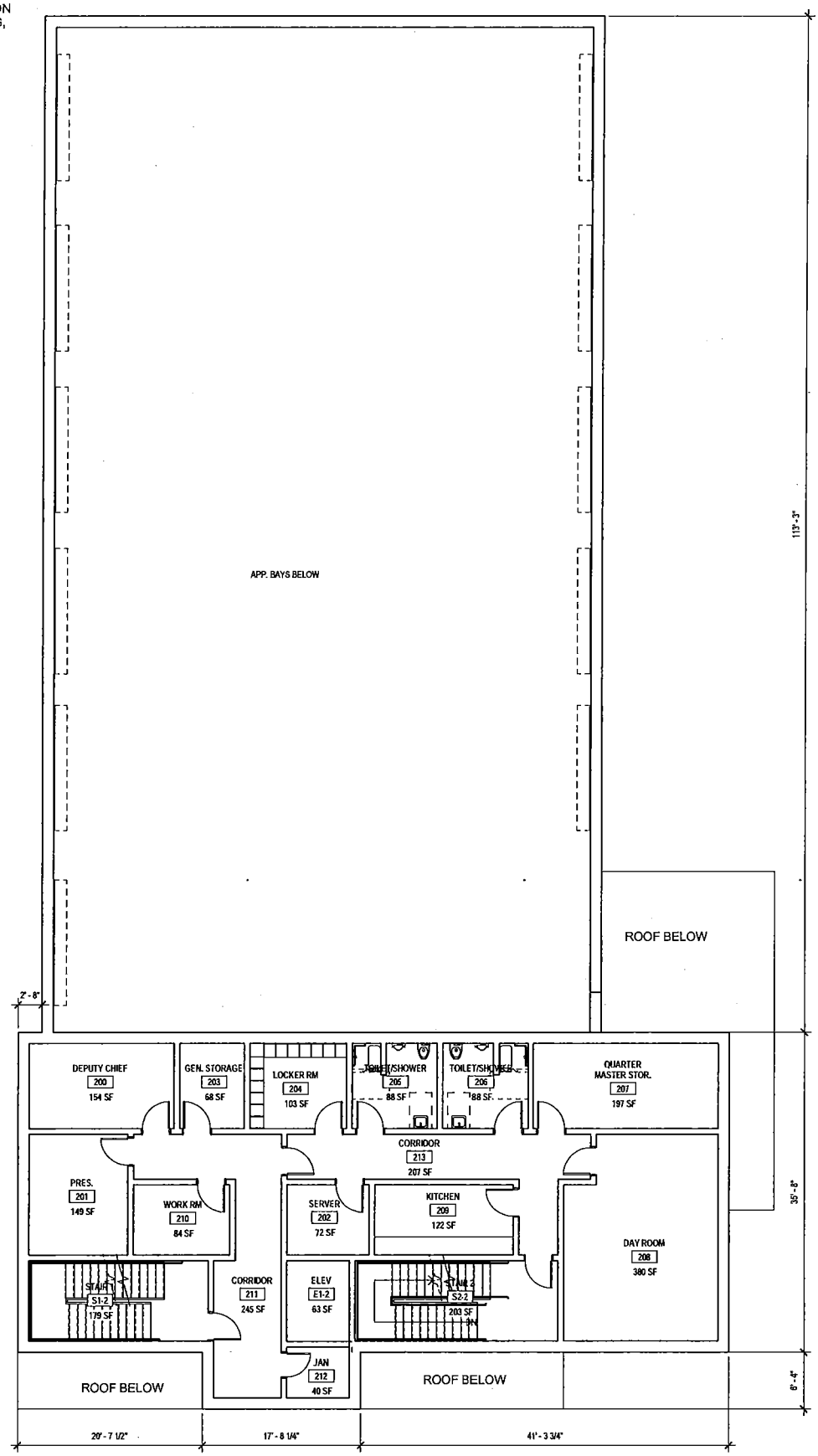


0 4' 8' 16'
SCALE: 1/8"=1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3a, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE STATION W/ FUTURE POLICE

LEVEL 2

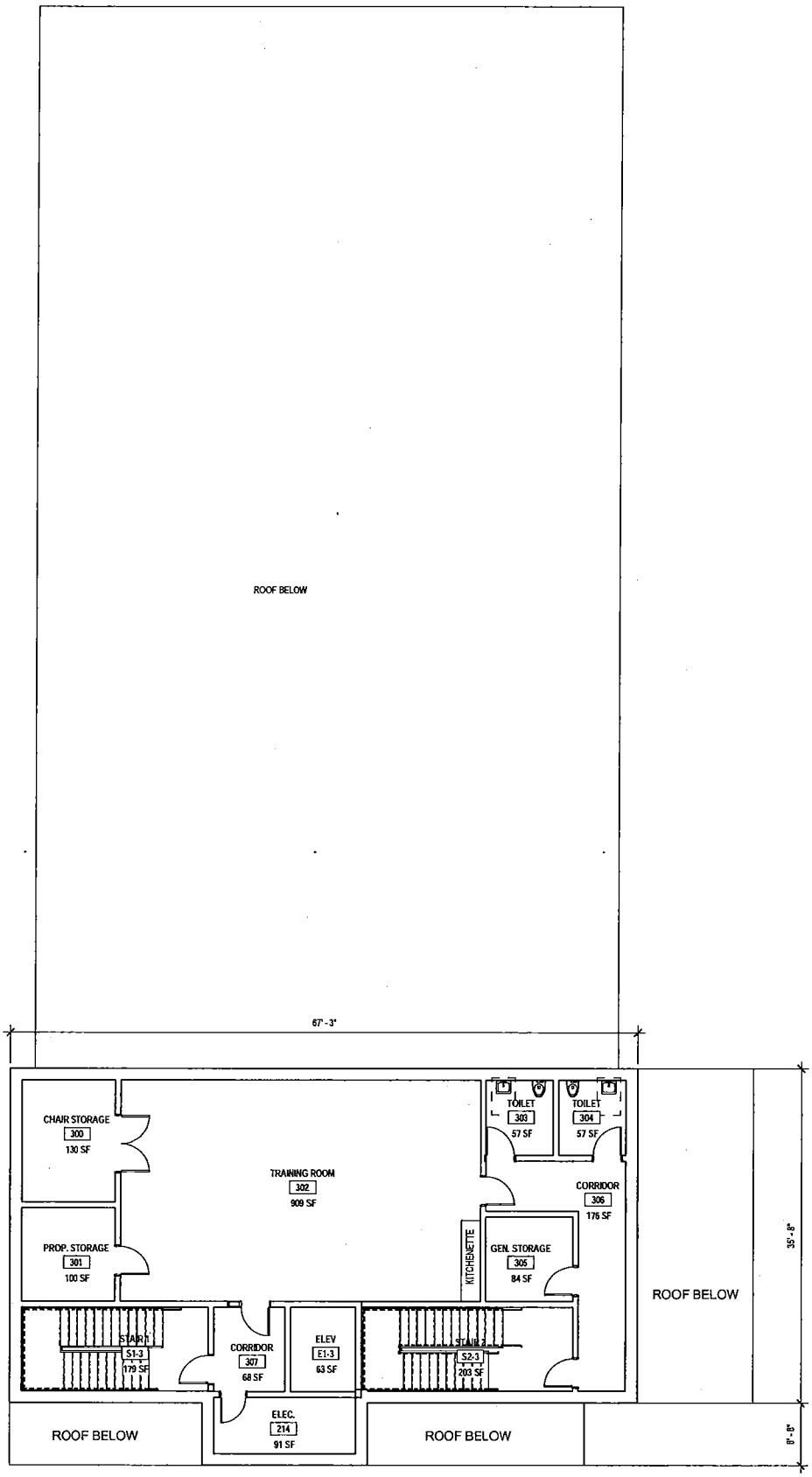


0 4' 8' 16'
SCALE: 1/8"=1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3a, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE STATION W/ FUTURE POLICE

LEVEL 3



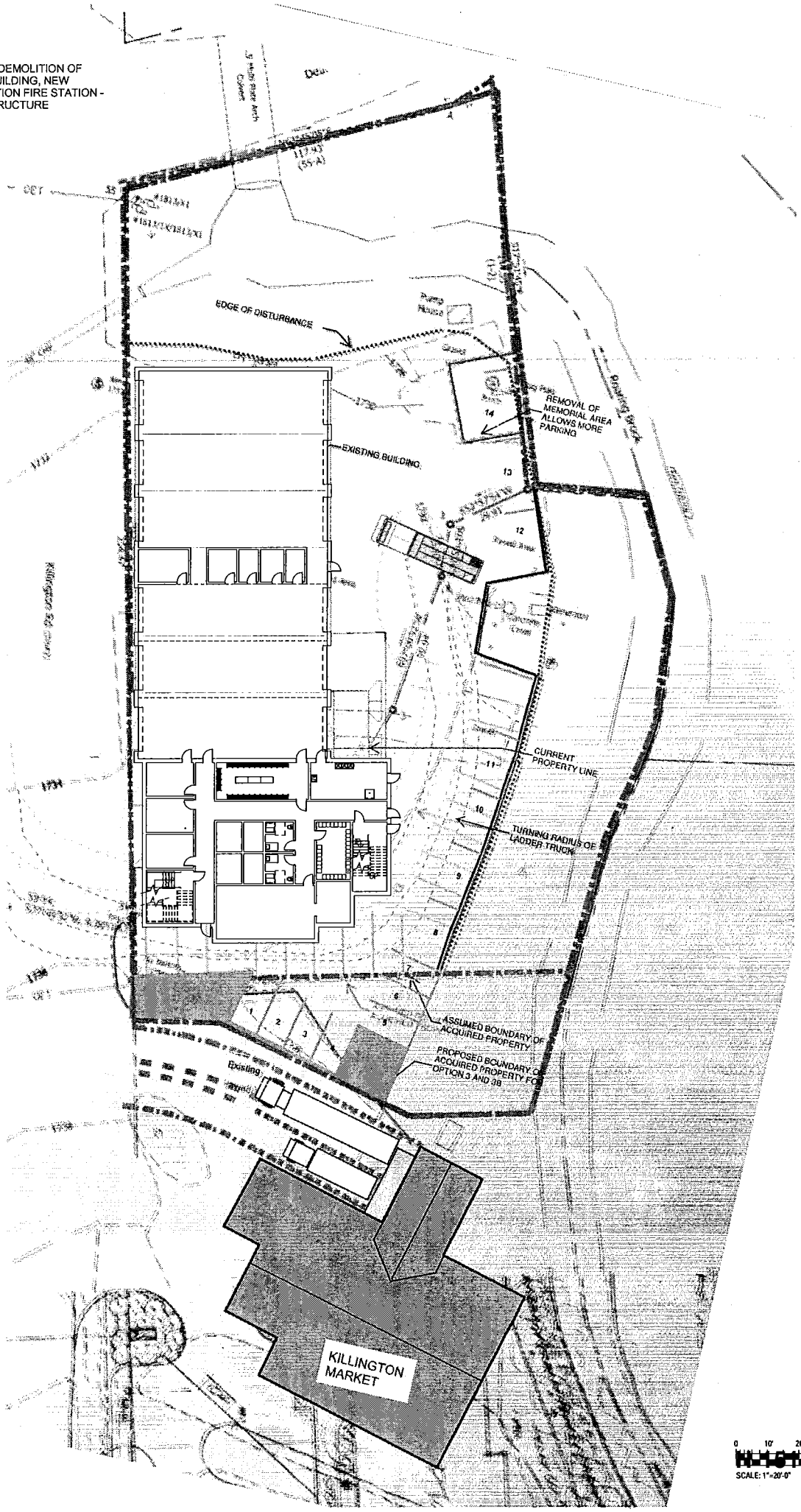
H-150

SCALE: 1/8"=1'-0" GRAPHIC SCALE

DORE & WHITTIER ARCHITECTS, INC.

OPTION 3B, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE STATION - 2 STORY STRUCTURE

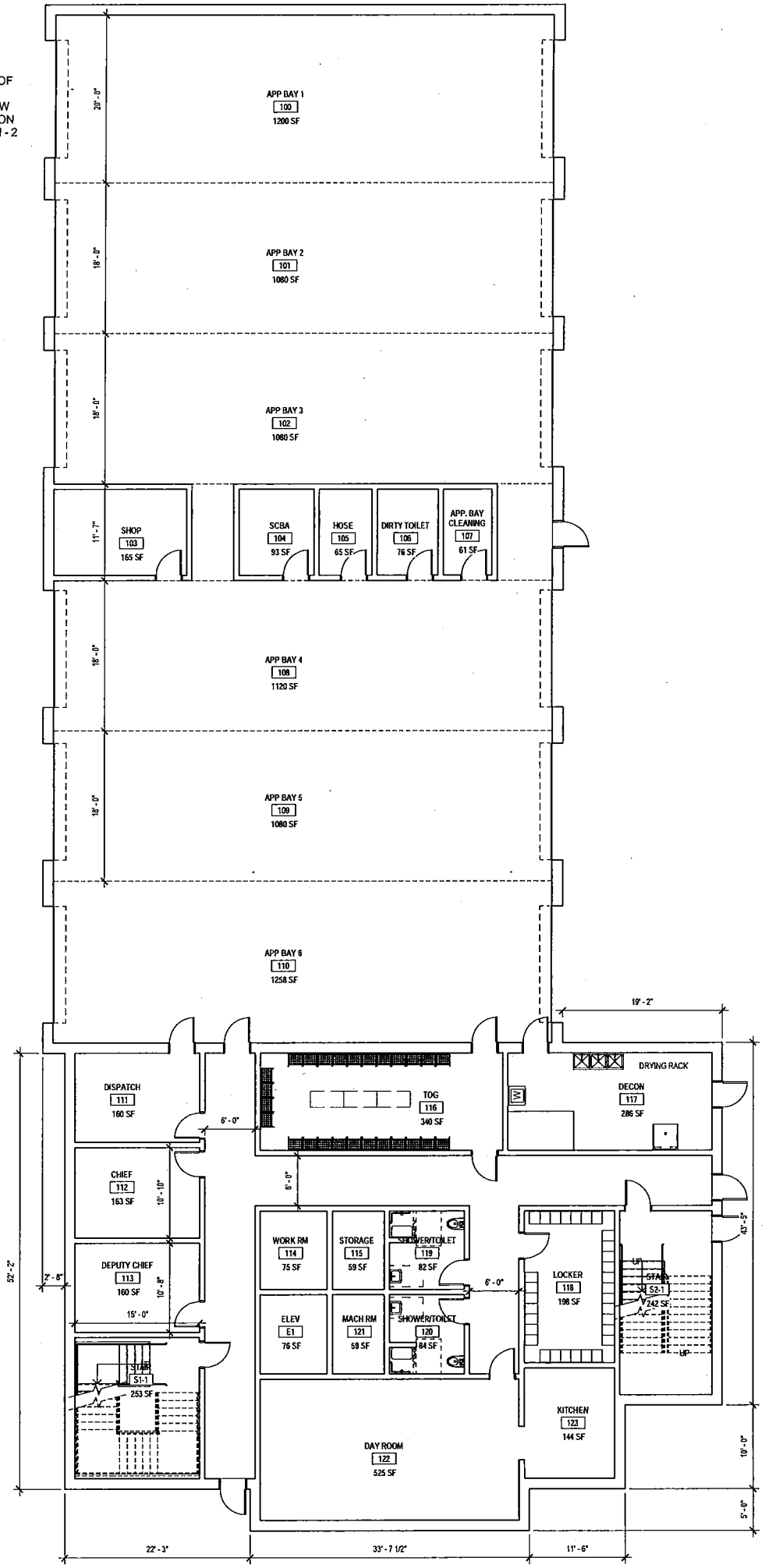
SITE PLAN



DORE & WHITTIER ARCHITECTS, INC.

OPTION 3B, DEMOLITION OF EXISTING BUILDING, NEW CONSTRUCTION FIRE STATION - 2 STORY STRUCTURE

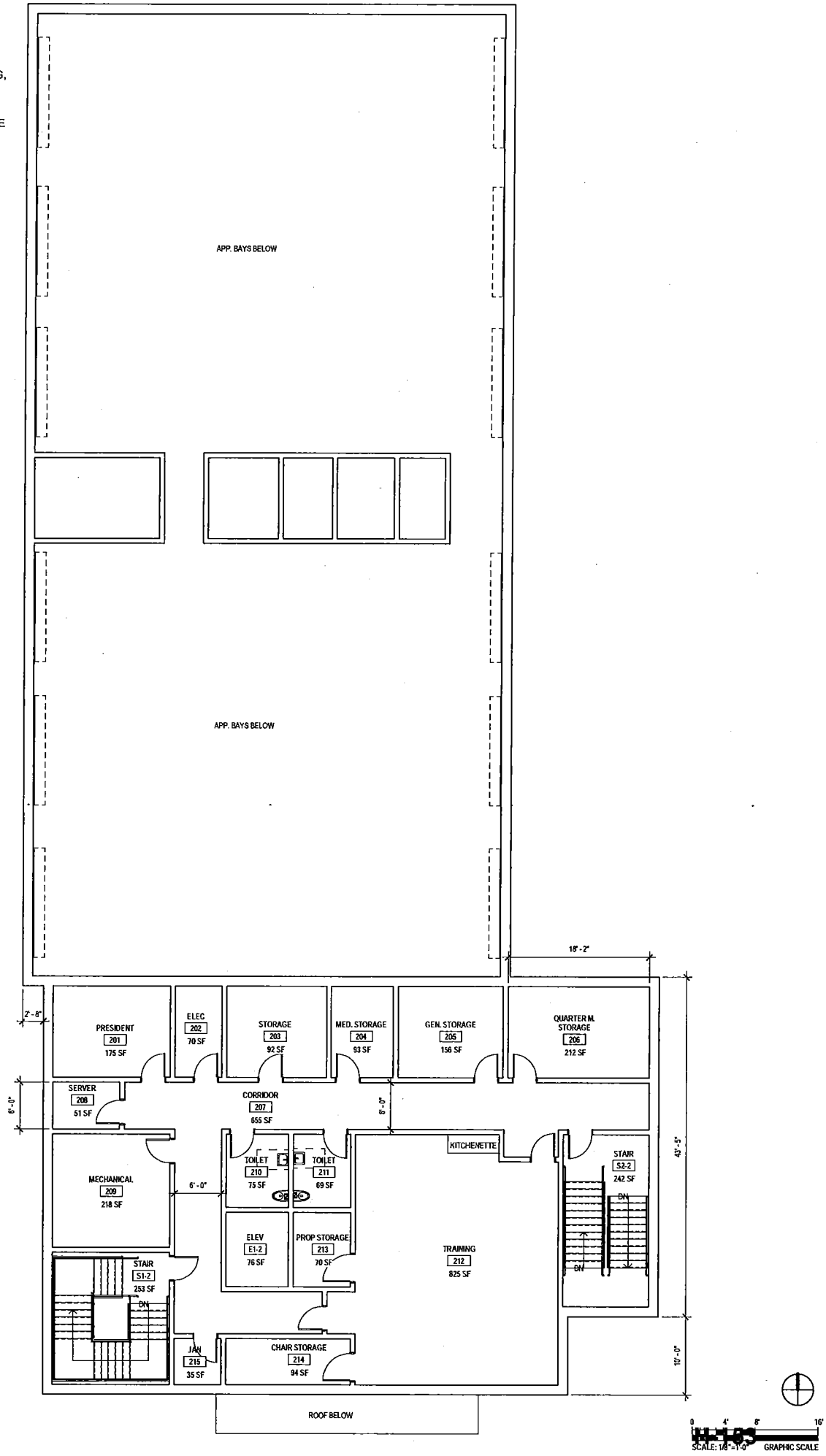
LEVEL 1



DORE & WHITTIER ARCHITECTS, INC.

OPTION 3B,
DEMOLITION OF
EXISTING BUILDING,
NEW
CONSTRUCTION
FIRE STATION - 2
STORY STRUCTURE

LEVEL 2



Estimated Project Costs		6/12/14	
Killington Public Safety			
Killington, VT			
The following is a summary of Estimated Project Costs developed for the Killington Public Safety Study.			
The options developed are conceptual in nature and therefore the estimated project			
costs are intended to provide a preliminary order of magnitude view at the potential project costs.			
Project costs consist of estimated site and building construction costs, design and construction			
contingencies, phasing, soft costs to cover the values of the design team, owner's project manager,			
investigative services, etc and fixtures, furniture and technology costs. The project costs			
presented are in current 2014 dollars and may need to be adjusted for inflation depending on			
future construction timeframes.			
Options:	**Sq Footage**	**Estimated Costs**	
Option 1 - Capital Improvements Only	**8236**	**$ 2,781,000**	
Option 1a - Capital Improvements + New Apparatus Bay	**9381**	**$ 3,251,000**	
Option 2 - Renovation Addition with Police	**17725**	**$ 7,234,000**	
Option 2a - Renovation Addition without Police	**15486**	**$ 6,317,000**	
Option 3 - New Station with Police (3 stories)	**16609**	**$ 6,655,000**	
Option 3a - New Station without Police (3 stories)	**14980**	**$ 6,012,000**	
Option 3b - New Station without Police (2 stories)	**15563**	**$ 6,242,000**	

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 1 - Capital Improvements Only							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				8236			
Construction Costs:							
	Site Development				$ 300,934	20% of building cost	
	Building:						
	Capital Improvements			6738	$ 1,160,130	See Cap. Improve. list	
	Renovations				$ -	$200/sf	
	New Building Construction:			1498	$ 344,540	$230/sf	
	Building Construction Subtotal:				$ 1,504,670		
	Site and Building Construct. Costs Subtotal:				$ 1,805,604		
	Design and Estimating Contingency				$ 180,560	10% of construction	
Total Estimated Construction Cost:					**$ 1,986,164**	$ 241	per sf
Project Contingency:		(Construction 10% + Owner 5%)			**$ 297,925**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 397,233**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 1,986,164**		
	Project Contingency				**$ 297,925**		
	Soft Costs				**$ 397,233**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 2,781,000**	$ 338	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 1a - Capital Improvements + New Apparatus Bay							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				9381			
Construction Costs:							
	Site Development				$ 353,604	20% of building cost	
	Building:						
	Capital Improvements			6738	$ 1,160,130	See Cap. Improve. list	
	Renovations				$ -	$200/sf	
	New Building Construction:			2643	$ 607,890	$230/sf	
	Building Construction Subtotal:				$ 1,768,020		
	Site and Building Construct. Costs Subtotal:				$ 2,121,624		
	Design and Estimating Contingency				$ 212,162	10% of construction	
Total Estimated Construction Cost:					**$ 2,333,786**	$ 249	per sf
Project Contingency:	(Construction 10% + Owner 5%)				**$ 350,068**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 466,757**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 2,333,786**		
	Project Contingency				**$ 350,068**		
	Soft Costs				**$ 466,757**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 3,251,000**	$ 347	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 2 - Renovation Addition with Police							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				17725			
Construction Costs:							
	Site Development				$ 800,728	20% of building cost	
	Building:						
	Capital Improvements				$ -		
	Renovations			2437	$ 487,400	$200/sf	
	New Building Construction:			15288	$ 3,516,240	$230/sf	
	Building Construction Subtotal:				$ 4,003,640		
	Site and Building Construct. Costs Subtotal:				$ 4,804,368		
	Design and Estimating Contingency				$ 480,437	10% of construction	
Total Estimated Construction Cost:					**$ 5,284,805**	$ 298	per sf
Project Contingency:	(Construction 10% + Owner 5%)				**$ 792,721**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,056,961**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 5,284,805**		
	Project Contingency				**$ 792,721**		
	Soft Costs				**$ 1,056,961**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 7,234,000**	$ 408	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 2a - Renovation Addition without Police							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				15486			
Construction Costs:							
	Site Development				$ 697,734	20% of building cost	
	Building:						
	Capital Improvements				$ -		
	Renovations			2437	$ 487,400	$200/sf	
	New Building Construction:			13049	$ 3,001,270	$230/sf	
	Building Construction Subtotal:				$ 3,488,670		
	Site and Building Construct. Costs Subtotal:				$ 4,186,404		
	Design and Estimating Contingency				$ 418,640	10% of construction	
Total Estimated Construction Cost:					**$ 4,605,044**	$ 297	per sf
Project Contingency:	(Construction 10% + Owner 5%)				**$ 690,757**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 921,009**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,605,044**		
	Project Contingency				**$ 690,757**		
	Soft Costs				**$ 921,009**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,317,000**	$ 408	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 3 - New Station with Police (3 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				16609			
Construction Costs:							
	Site Development				$ 764,014	20% of building cost	
	Building:						
	Capital Improvements				$ -		
	Renovations			0	$ -	$200/sf	
	New Building Construction:			16609	$ 3,820,070	$230/sf	
	Building Construction Subtotal:				$ 3,820,070		
	Site and Building Construct. Costs Subtotal:				$ 4,584,084		
	Design and Estimating Contingency				$ 458,408	10% of construction	
Total Estimated Construction Cost:					**$ 5,042,492**	$ 304	per sf
Project Contingency:	(Construction 5% + Owner 5%)				**$ 504,249**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 1,008,498**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 5,042,492**		
	Project Contingency				**$ 504,249**		
	Soft Costs				**$ 1,008,498**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,655,000**	$ 401	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 3a - New Station without Police (3 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				14980			
Construction Costs:							
	Site Development				$ 689,080	20% of building cost	
	Building:						
	Capital Improvements				$ -		
	Renovations			0	$ -	$200/sf	
	New Building Construction:			14980	$ 3,445,400	$230/sf	
	Building Construction Subtotal:				$ 3,445,400		
	Site and Building Construct. Costs Subtotal:				$ 4,134,480		
	Design and Estimating Contingency				$ 413,448	10% of construction	
Total Estimated Construction Cost:					**$ 4,547,928**	$ 304	per sf
Project Contingency:	(Construction 5% + Owner 5%)				**$ 454,793**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 909,586**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,547,928**		
	Project Contingency				**$ 454,793**		
	Soft Costs				**$ 909,586**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,012,000**	$ 401	per sf

Estimated Project Costs						6/12/14	
Killington Public Safety							
Killington, VT							
Option 3b - New Station without Police (2 stories)							
					Estmated Cost:		
				Sq Footage:	**(2014 dollars)**	**Comments:**	
				15563			
Construction Costs:							
	Site Development				$ 715,898	20% of building cost	
	Building:						
	Capital Improvements				$ -		
	Renovations			0	$ -	$200/sf	
	New Building Construction:			15563	$ 3,579,490	$230/sf	
	Building Construction Subtotal:				$ 3,579,490		
	Site and Building Construct. Costs Subtotal:				$ 4,295,388		
	Design and Estimating Contingency				$ 429,539	10% of construction	
Total Estimated Construction Cost:					**$ 4,724,927**	$ 304	per sf
Project Contingency:	(Construction 5% + Owner 5%)				**$ 472,493**		
Soft Costs:							
	Owner's Project Manager,						
	Arch/engineering, Owner direct,						
	Survey, Geotechnical, Hazardous						
	Materials, Printing, Legal, etc.						
			Subtotal		**$ 944,985**	20% of construction	
FF&E/Technology							
			Subtotal		**$ 100,000**	Budget	
Project Cost Summary:							
	Construction Costs				**$ 4,724,927**		
	Project Contingency				**$ 472,493**		
	Soft Costs				**$ 944,985**		
	FF&E/Technology Costs				**$ 100,000**		
	Estimated Total Project Costs				**$ 6,242,000**	$ 401	per sf

Revised 15-YR Priority SPACE NEEDS ANALYSIS

June 13 2014

Killington Public Safety Complex

June 13, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Police Department											
ADMINISTRATION											
Police Chief Office		200	100	0	0	45	0	45	45	0	Requested change to 100 SF
SUBTOTAL	**0**	**200**	**100**	**0**	**0**	**45**	**0**	**45**	**45**	**0**	
OPERATIONS											
Patrol Room		440	440	0	0	256	0	256	266	0	with Workstations
Toilet/Shower/Locker (Male)		330	180	0	0	170	0	190	190	0	2 gender neutral Toilet Showers
Gender Neutral Lockers (Male and Female)			180	0	0	167	0	173	173	0	18'by10' locker room
Evidence Storage		65	65	0	0	75	0	75	75	0	
Hard Interview Room / Cuffing		75	75	0	0	66	0	66	66	0	
Detention Cell - Male		70	70	0	0	82	0	82	82	0	(1 needed in H Priority)
Secure Toilet		40	40	0	0	45	0	45	45	0	
Sallyport		540	540	0	0	567	0	327	327	0	Single vehicle
SUBTOTAL	**0**	**2,225**	**1,590**	**0**	**0**	**1,428**	**0**	**1,214**	**1,224**	**0**	
Grand Total Police Department	**0**	**3,950**	**1,690**	**0**	**0**	**1,473**	**0**	**1,259**	**1,269**	**0**	

Revised 15-YR Priority SPACE NEEDS ANALYSIS

June 13 2014

Killington Public Safety Complex

June 13, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Fire Department											
PUBLIC AREAS											
Dispatch / Radio Room / Reports		180	150	0	0	128	128	143	143	160	
SUBTOTAL	**0**	**420**	**150**	**0**	**0**	**128**	**128**	**143**	**143**	**160**	
ADMINISTRATION											
Fire Chief Office	129	200	150	129	129	169	169	148	148	173	
Deputy Fire Chiefs' Office	128	190	150	128	128	154	154	154	154	150	Shared Office
Pres. / VP Office		190	150	0	0	149	149	149	149	175	Shared Office
Work Room - Office Equipment / Copy / Supplies		80	80	0	0	84	77	84	84	75	
SUBTOTAL	**257**	**2,070**	**530**	**257**	**257**	**556**	**549**	**535**	**535**	**573**	
LIVING SPACES											
Toilet Shower	33	270	180	133	133	316	304	290	176	314	Change from(3) gender neutral to (2) gender neautral
Personnel Lockers			100	0	0	128	128	103	103	198	Lockers were included in the Sleeping Qtrs. Does Fire Still want?' 6 - 10 Lockers?
Day Room	496	545	545	496	496	535	539	380	380	525	
Kitchen/Dining	122	470	150	122	122	180	181	122	122	144	Change to approx same size as exg.
SUBTOTAL	**651**	**1,920**	**975**	**751**	**751**	**1159**	**1152**	**895**	**781**	**1181**	
OPERATIONS											
Apparatus Bays	3579	6,080	6,720	3761	4841	6882	5766	6748	6720	6818	(4) 18'W & (2)20'W x 60'D Bays
SUBTOTAL	**3,579**	**6,510**	**6,720**	**3,761**	**4,841**	**6,882**	**5,766**	**6,748**	**6,720**	**6,818**	
OPERATIONS SUPPORT											
Hose Storage		65	65	0	0	84	87	58	58	65	
Turnout Gear Storage	110	385	385	110	110	399	399	391	391	340	(30) Lockers
Shop / Tool Room / Light Maintenance		180	180	0	0	89	89	93	93	165	single bench required .
Medical Cleaning / Decontamination		190	190	0	0	257	261	195	195	286	
Dirty Restroom		65	65	0	0	51	52	68	68	76	
SCBA Fill Room		100	100	0	0	60	60	96	96	93	check to verify exg equipment
Medical Supply Storage		80	80	0	0	63	63	70	70	93	
Quartermaster Storage	118	200	200	120	120	205	213	197	197	212	
General Storage	66	150	150	88	90	161	125	152	170	407	
Apparatus Bay Cleaning Closet		80	80	0	0	68	71	51	51	61	
SUBTOTAL	**570**	**1,495**	**1,495**	**318**	**320**	**1,437**	**1,420**	**1,371**	**1,389**	**1,798**	
Grand Total Fire Department	**5,057**	**12,415**	**9,870**	**5,087**	**6,169**	**10,162**	**9,015**	**9,692**	**9,568**	**10,530**	

Revised 15-YR Priority SPACE NEEDS ANALYSIS

June 13 2014

Killington Public Safety Complex

June 13, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR H	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Shared Spaces											
PUBLIC AREAS											
Training Room / EOC	940	825	825	983	983	940	964	909	909	825	go back to requested
Training Prop Storage		100	100			100	78	100	100	70	
Training AV & Table / Chair Storage		100	100			130	129	130	130	94	
SUBTOTAL	**1,002**	**1,630**	**1,025**	**983**	**983**	**1,170**	**1,171**	**1,139**	**1,139**	**989**	
SHARED SPACES											
Server Room		100	40	0	0	70	69	72	72	48	possibly a closet off dispatch
Janitor's Closet		30	30	21	19	50	54	40	40	35	
SUBTOTAL	**0**	**530**	**70**	**21**	**19**	**120**	**123**	**112**	**112**	**83**	
Grand Total Shared Spaces	**1,002**	**2,160**	**1,095**	**1,004**	**1,002**	**1,290**	**1,294**	**1,251**	**1,251**	**1,072**	
BUILDING SYSTEMS + CIRCULATION											
Stairs	54	1,080	1080	185	185	526	419	380	380	495	2 @ 180 SF/Flr x 3 Flrs
Elevator		160	160	73	73	80	80	63	63	76	3 Flrs @ 53 SF/FLR
Elevator Machine Room		80	80	60	60	58	55	57	57	59	
Mechanical/Electrical	20	500	500	20	20	484	504	359	363	288	
SUBTOTAL	**74**	**1,820**	**1,820**	**338**	**338**	**1,148**	**1,058**	**859**	**863**	**918**	
SUMMARY											
Police Department	0	3,950	1,690	0	0	1,473	0	1,259	1,269	0	
Shared Spaces	1,076	2,160	1,095	1,004	1,002	1,290	1,294	1,251	1,251	1,072	
Subtotal	1,076	6,110	2,785	1,004	1,002	2,763	1,294	2,510	2,520	1,072	
Infrastructure @ 15%		917	418								
Building Circulation @ 20%		1,222	557								
SUBTOTAL SF	**1,076**	**8,249**	**3,760**	**1,004**	**1,002**	**2,763**	**1,294**	**2,510**	**2,520**	**1,072**	
Fire Department	5,057	12,415	9,870	5,087	6,169	10,162	9,015	9,692	9,568	10,530	
Building Systems + Circulation		1,820	1,820	338	338	1,148	1,058	859	863	918	
Subtotal	5,057	14,235	11,690	5,425	6,507	11,310	10,073	10,551	10,431	11,448	
Infrastructure @ 12.5%		1,779	1,461								

Revised 15-YR Priority SPACE NEEDS ANALYSIS

June 13 2014

Killington Public Safety Complex

June 13, 2014

PROGRAMMED SPACE	EXISTING	REQUESTED	15-YR	ACTUAL (OPTION 1)	ACTUAL (OPTION 1a)	ACTUAL (OPTION 2)	ACTUAL (OPTION 2a)	ACTUAL (OPTION 3)	ACTUAL (OPTION 3a)	ACTUAL (OPTION 3b)	REMARKS
Building Circulation @ 12.5%		1,779	1,461								
SUBTOTAL SF	5,057	17,794	14,613	5,425	6,507	11,310	10,073	10,551	10,431	11,448	
GRAND TOTAL SF	7,196	26,042	18,372	6,429	7,509	14,073	11,367	13,061	12,951	12,520	
Subtotals for Prioritization			*18,372*	*6,429*	*7,509*	*14,073*	*11,367*	*13,061*	*12,951*	*12,520*	
Actual Plans Area (GSF= incl walls, etc) (Used on Cost Projections)				*8,236*	*9,381*	*17,725*	*15,486*	*16,609*	*14,980*	*15,563*	

15-Yr **High** Priority Total SF **18,372** (reflects increase in FD spaces due to larger App Bay)

15-Yr Including **Med** Priority Total SF **19,477**

15-Yr Including **Low+Med** Priority Total SF **22,806**

DORE & WHITTIER
ARCHITECTS, INC.

ARCHITECTS
PROJECT MANAGERS

VERMONT
1795 Williston Rd. Ste. 200
S. Burlington, VT 05403
(P) 802.863.1428
(F) 802.863.6955

MASSACHUSETTS
260 Merrimac St. Bldg. 7
Newburyport, MA 01950
(P) 978.499.2999
(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 10 July 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee via telephone

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Chet Hagenbarth (CH)	Town of Killington DPW
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team will separate site costs for the current Design Options including the cost for a water storage tank and pump system (which is required for both truck fill as well as fire protection system). Other site costs include:
   a. Storm management
   b. Traffic signal

2. Demolition costs as well as temporary facility costs should also be included with the Project Costs for the previous Options as well as alternate sites.

3. The Town will determine alternate sites using the following criteria:

   a. Size of site could range from 3 acres to 5 acres

   b. Maximum distance from the current Fire Station on Killington Road to be between ½ mile and 1 mile

   c. It would be preferred to locate the site closer to the ski area (up the hill) due to the number of calls.

4. The Town will determine site purchase costs of the alternate sites either through assessed value or through the land owners.

5. When looking at alternate sites, the Fire Department requires a consistent source of water possibly through a well.

6. The tentative schedule would be to review alternate sites and options for the sites by the end of August. Then in September have discussions with the Building Committee and Selectmen.

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7. Next scheduled meeting is on July 23 at 4:30 pm via telephone conference to review the Town's selected alternate sites.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl.

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Chet Hagenbarth	Town of Killington DPW
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	Peter Bradley	PM&C
	DMW/LPD/File	

DORE & WHITTIER
ARCHITECTS, INC.

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Newburyport, MA 01950
(P) 978.499.2999
(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 23 July 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee (BC) via telephone

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Chet Hagenbarth (CH)	Town of Killington DPW
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Joseph Petrarca (JP)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team prepared and reviewed initial analysis of the proposed alternate sites submitted by the Town. The list of the proposed sites as well as the tax maps are attached to these minutes. The Design Team presented aerial views with the tax map property lines superimposed on them. A copy of each site and the Design Team's Summary is attached to these minutes

2. Only some of the alternate sites were flat enough while others were over a mile away from the existing fire station. After some discussion, it was determined lot 29-249 was the best suited for the Public Safety Project. It was agreed that the Design Team will continue to explore this site and look at designs for the Fire Department, Police Department and see how a future Town Hall could also be added.

3. The BC agreed that a two story fire station was optimal and that the Police Station would be better attached to the Fire Station and not as a separate structure.

4. The Town would like to see the Town Hall as part the Public Safety Building if possible. There are several possible shared space opportunities including meeting rooms, file storage, toilet rooms, IT rooms, etc.

5. Steve Durkee who currently owns this property is willing to negotiate a possible land swap. He also wants to be able to review and comment on the development of the site. He has also done a preliminary sketch of how the site could be developed. CH will sit down with him tomorrow to gather up as much information that he has on the site.

6. CH will also met with the Agency of Natural Resources to see if there are any issues with developing this site.

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Schedule

7. D&W will plan on having some plan options by the end of next week which they can then share with the Building Committee for their review. D&W will continue to develop the options during the month of August.

8. D&W will then prepare costs for the Alternate options on this site and complete the previous options to include site development costs.

9. The Town will plan to present to the Board of Selectmen towards the end of September.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. List of Alternate Sites Rec'd from the Town of Killington
Tax maps of Alternate Sites
Summaries of each of the Alternate Sites.

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Chet Hagenbarth	Town of Killington DPW
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	Peter Bradley	PM&C
	DMW/LPD/File	

Parcels that meet the following criteria for relocation of the Sherburne Volunteer Fire Department facility.

Area size – 4 to 5 acres
Access to Killington Road
Located within 1 mile +- of the existing fire station.

29-249
Owner: Steve Durkee
Assessed value $295,290.00
6.43 acres.
Has a rental house on the back of the lot.
Lot is flat with access to Killington Road
.2 miles from SVFD

29-187
Owner: Killington Resort
Assessed as part of the resort.
Lot is part of the Killington Golf course.
26.2 acres which could be subdivided from the golf course.
Killington has been marketing this lot.
Has existing driveway onto Killington Rd.
Site of the former K. TV building.
.50 miles from SVFD

22-147A
Owner: Killington Rd Investments LLC
Assessed Value $202,500.00
North of the Woods Condos.
Relatively steep lot
4.5 acres
1.4 miles from SVFD

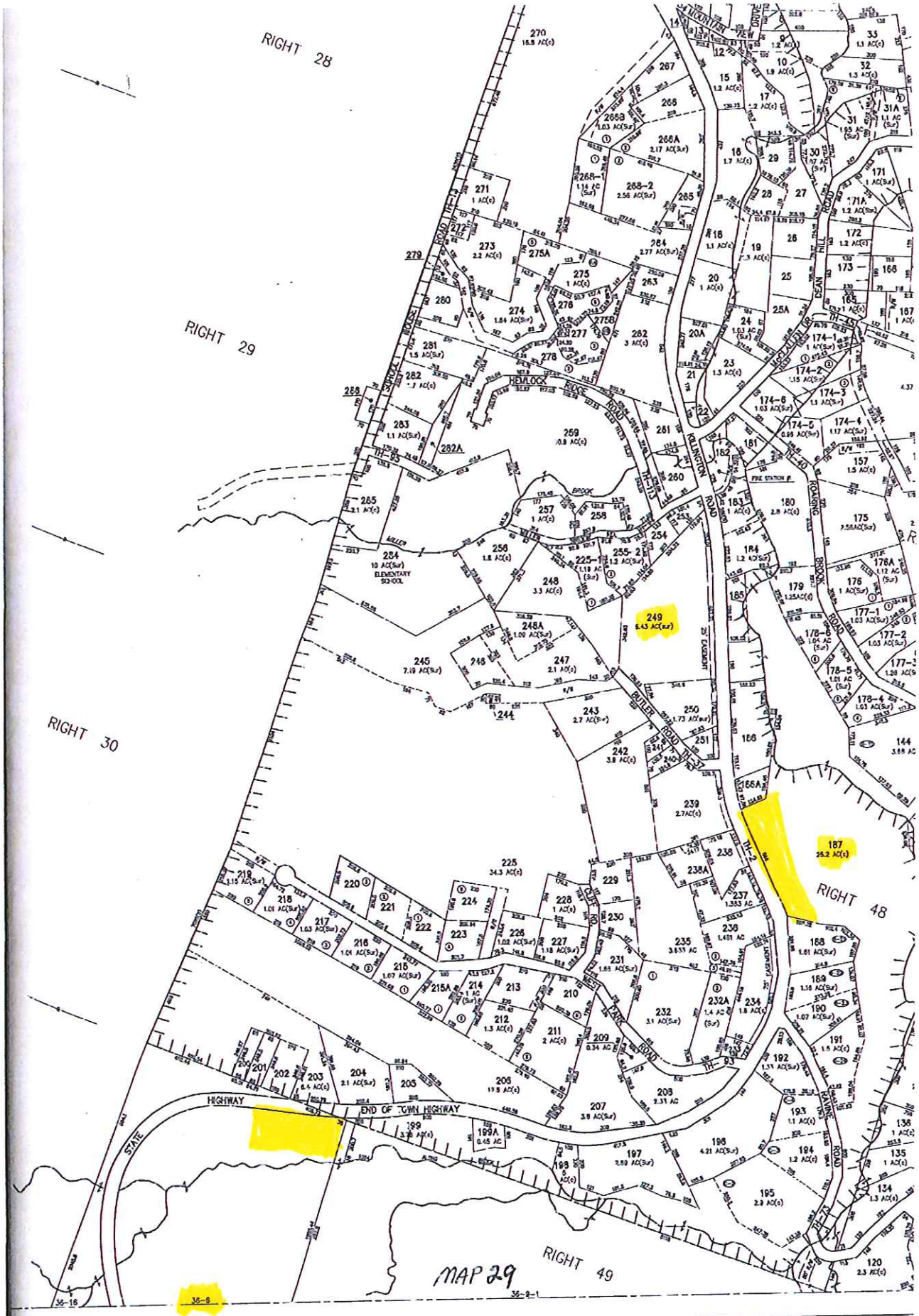
22-147
Owner: James and Sandra Johnson
Assessed Value $721,000.00
Relatively steep lot.
30.2 acres, located north of the Woods Condos.
1.45 miles from SVFD

22-233B
Owner: 4241 Vermont LLC
Assessed Value $246,400.00
Part of former Rome property.
Has access to both Rt 4 and Killington Rd.
Killington Rd access through the Hillside driveway.
38.6 acres
1.5 miles from SVFD

22-155
Owner: Eva and Theresa Nagymihaly Trust
Assessed Value $362,900.00
South of Welcome to Killington Region sign
Relatively steep lot.
Access to both Rt 4 and Killington Rd.
9.3 acres
1.5 miles from SVFD

22-235
Owner: Gordon and Sammi Goes
Assessed Value $270,000.00
May be in foreclosure
Contains house and garage on Rt 4 side of the lot.
Lot has access to both Killington Rd and Rt 4.
Section with K. Rd access could be subdivided from house site.
10.4 acres
1.5 miles from SVFD

36-6 (shown on Map 29)
Owner: Killington Resort
Assessed as part of the resort.
South of the Killington Mall and north of proposed resort parking lot
Good access to Killington Rd.
1 mile from SVFD



PROCUDED BY

CAI Technologies

11 PLEASANT STREET, LITTLETON, NEW HAMPSHIRE 03561

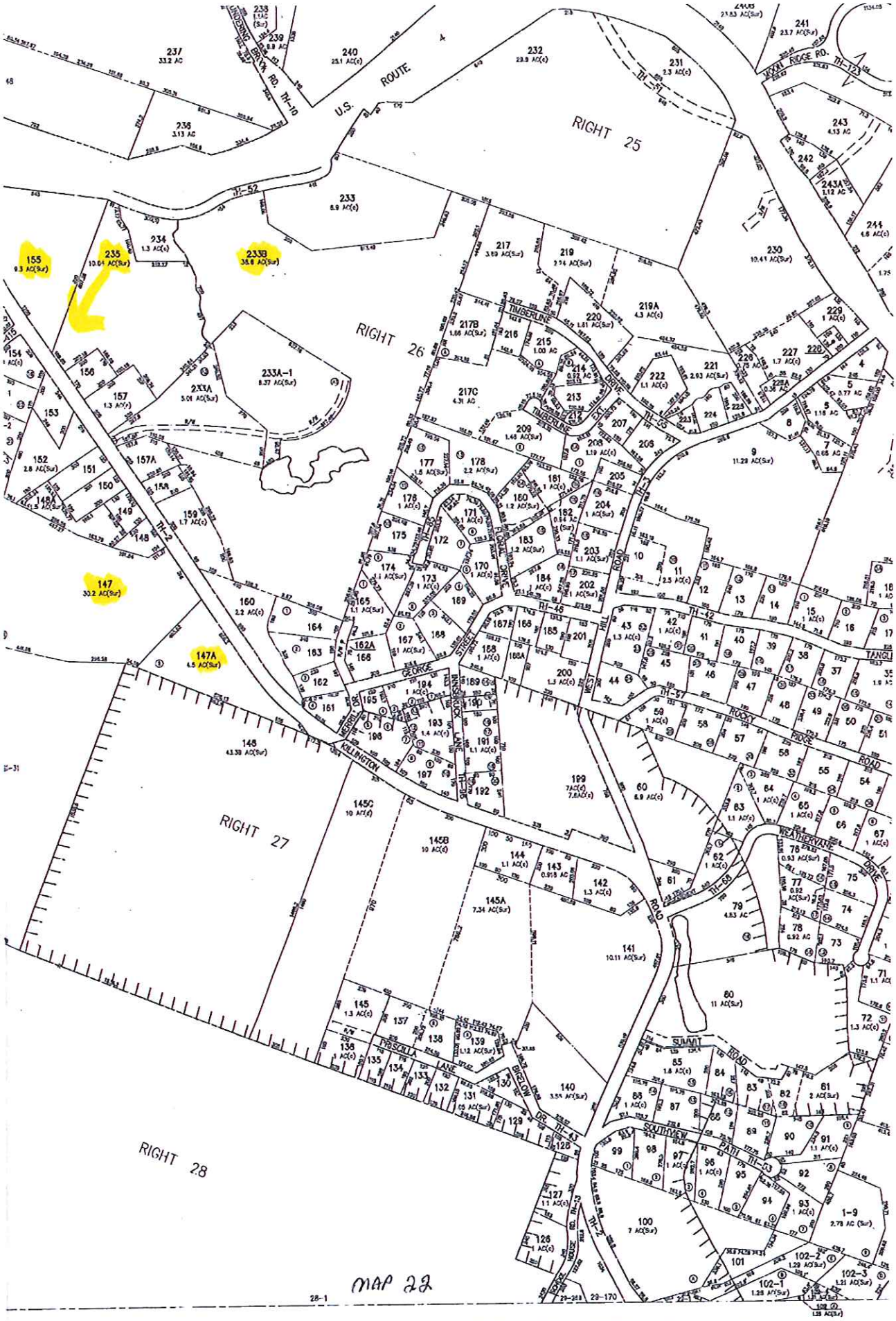
LEGEND

SCALE – 1 : 2500

METERS 100 50 0 100 200

FEET 200 0 200 400 600

REVISED AND REPRINTED TO: APRIL 1, 2013



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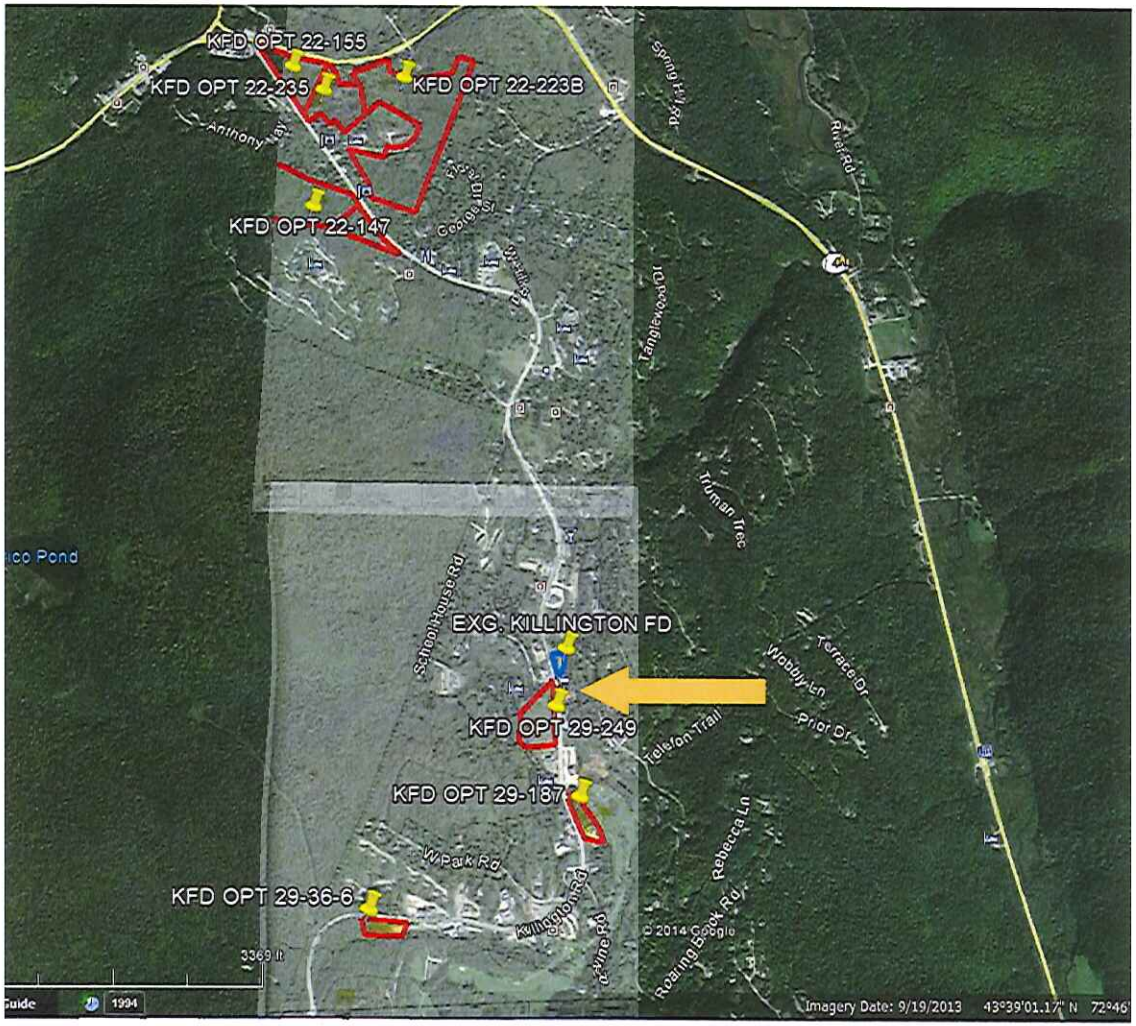
PRODUCED BY CAI Technologies
Precision Mapping, Geospatial & Enhancement
15 PLEASANT STREET, LITTLETON, NEW HAMPSHIRE 03561
800.323.4540 — WWW.CAI-TECH.COM

LEGEND
PROPERTY PARCEL NUMBER
SUBDIVISION LOT NUMBER
ADJACENT MAP NUMBER
CORNER OWNERSHIP
RIGHT LIMIT
FIRE DISTRICT # LIMIT
DEEDED ACREAGE
COMPUTED ACREAGE
SURVEYED ACREAGE
SCALED DIMENSION
TOWN BOUNDARY
STATE BOUNDARY
U.S. BOUNDARY

SCALE – 1 : 2500
METERS 100 50 0 100 200
FEET 200 0 200 400 600

REVISED AND REPRINTED TO: APRIL 1, 20



KILLINGTON OPTION 29-249

Owner: Steve Durkee

Assessed Value: $295,290

Across Killington road from existing fire station

6.43 Acres

0.2 Miles from SVFD

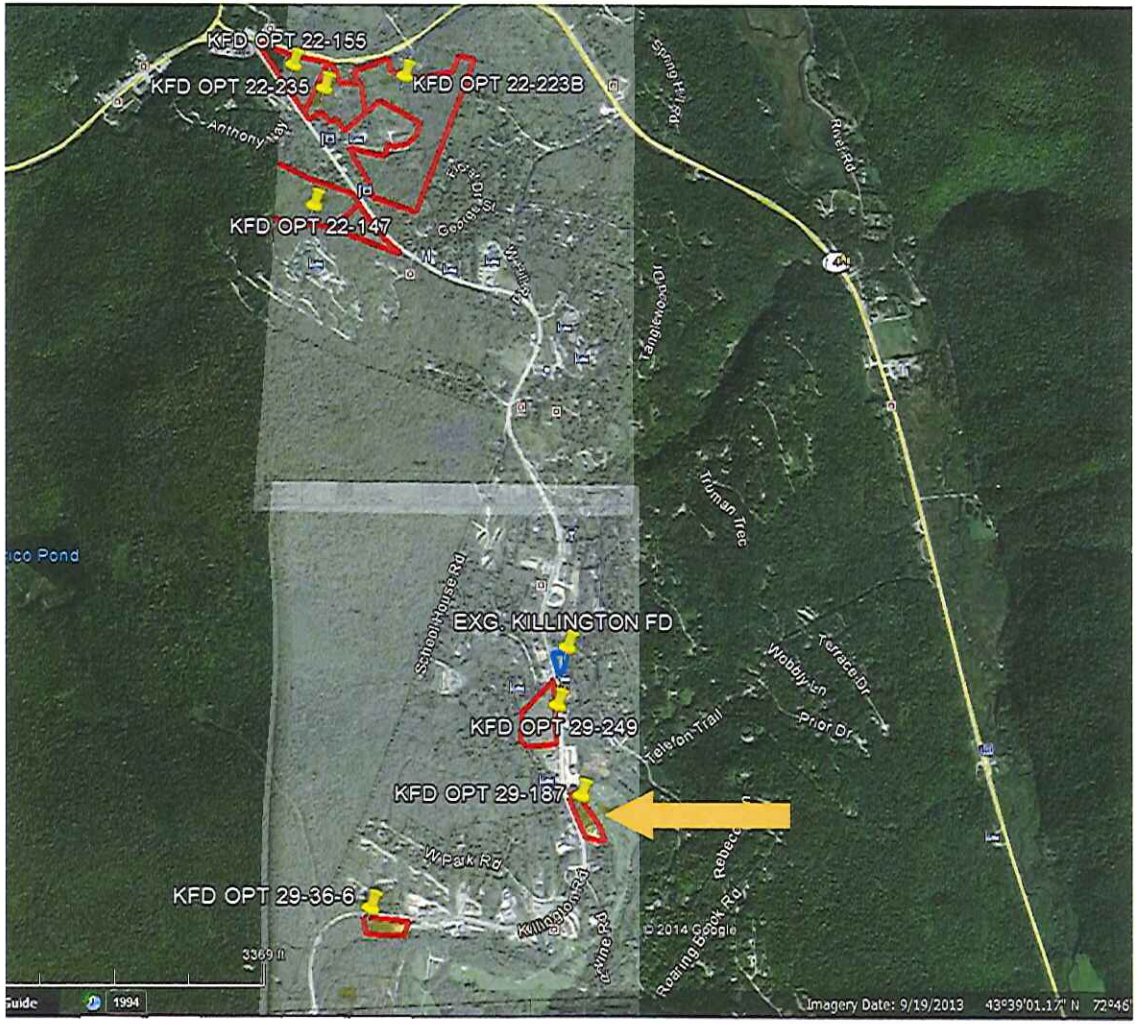
Summary:

Good site for this project

At south section of site, there is about 20' of elevation gain from road to 500' west of road. At the northern section, there's roughly 6' of elevation gain. (Numbers are extremely rough without survey)

Relatively level near road

There is a large berm near road at north portion, but it is possible3 to build parking behind this berm.



KILLINGTON OPTION 29-187

Owner: Killington Resort

Assessed Value: As part of the resort currently

Part of Killington Golf course

26.2 Acres which could be subdivided from golf course

Killington has been marketing this lot

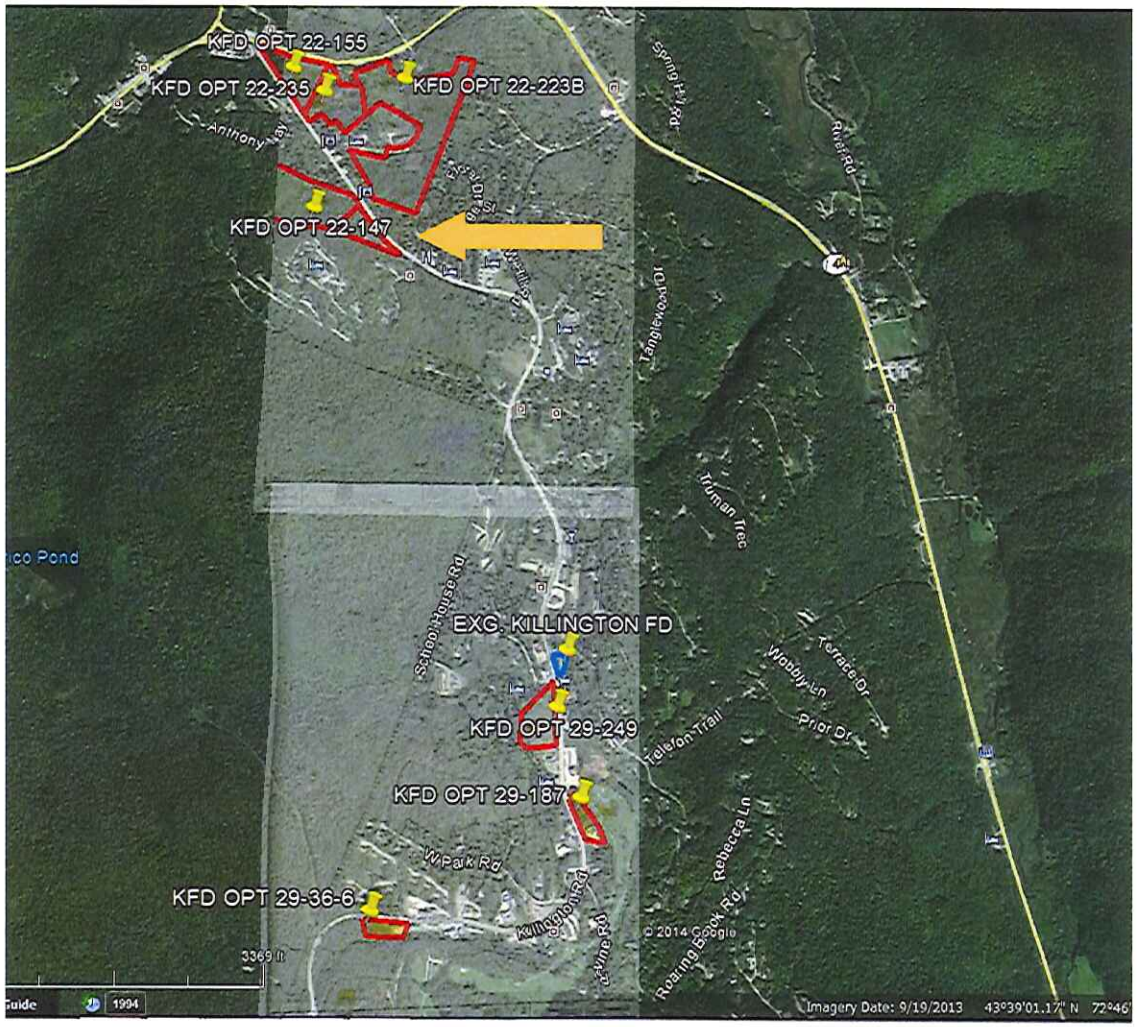
0.50 Miles from SVFD

Summary:

Existing curb cut onto Killington Road

Relatively flat area for 50' from road, then steep drop-off with a drop of roughly 12'-16' in elevation.

North side of this property looks best- relatively flat 400' in from road.



KILLINGTON OPTION 22-147

Owner: Killington Rd Investments LLC

Assessed Value: $202,500

North of the Woods Condos

4.5 Acres

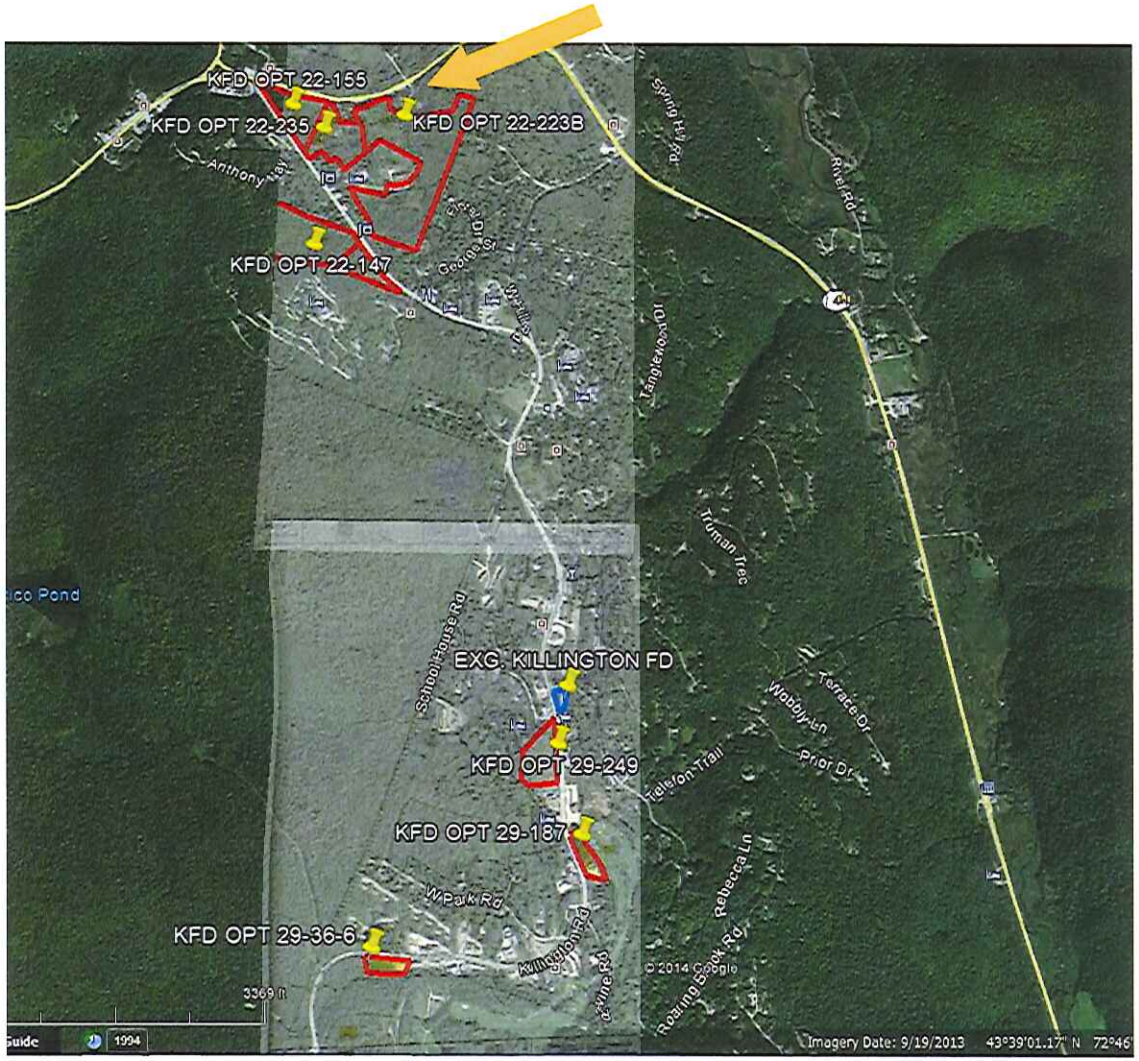
1.4 Miles from SVFD

Summary:

Significant topography (Relatively steep site)

Roughly 75' elevation gain from road to 500' west of road.

Adequate frontage



KILLINGTON OPTION 22-233B

Owner: 4341 Vermont LLC

Assessed Value: $246,400

Part of former Rome property

Contains house and garden on Rt 4 side of lot

38.6 Acres

1.5 Miles from SVFD

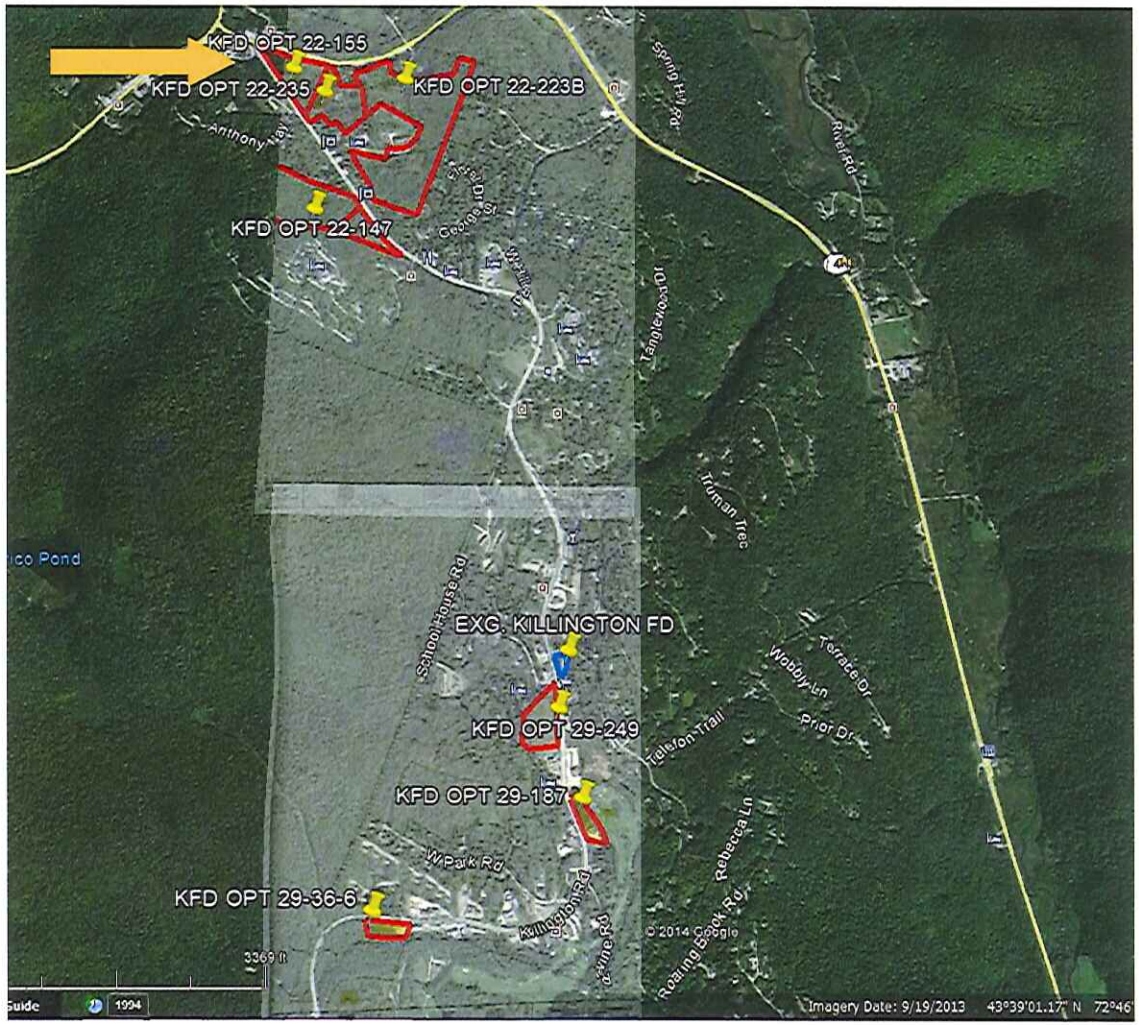
Summary:

Access to both Rt 4 and Killington Rd however very little road frontage on Rt 4 OR Killington Road

Killington Road access through the Hillside driveway (is that suitable for fire vehicle traffic?)

Topography is significant. Majority of property would preclude economical construction. Roughly over 100' elevation differences.

Property is odd dogleg shape.



KILLINGTON OPTION 22-155

Owner: Eva and Theresa Nagymihaly Trust

Assessed Value: $362,900

South of "Welcome to Killington" sign

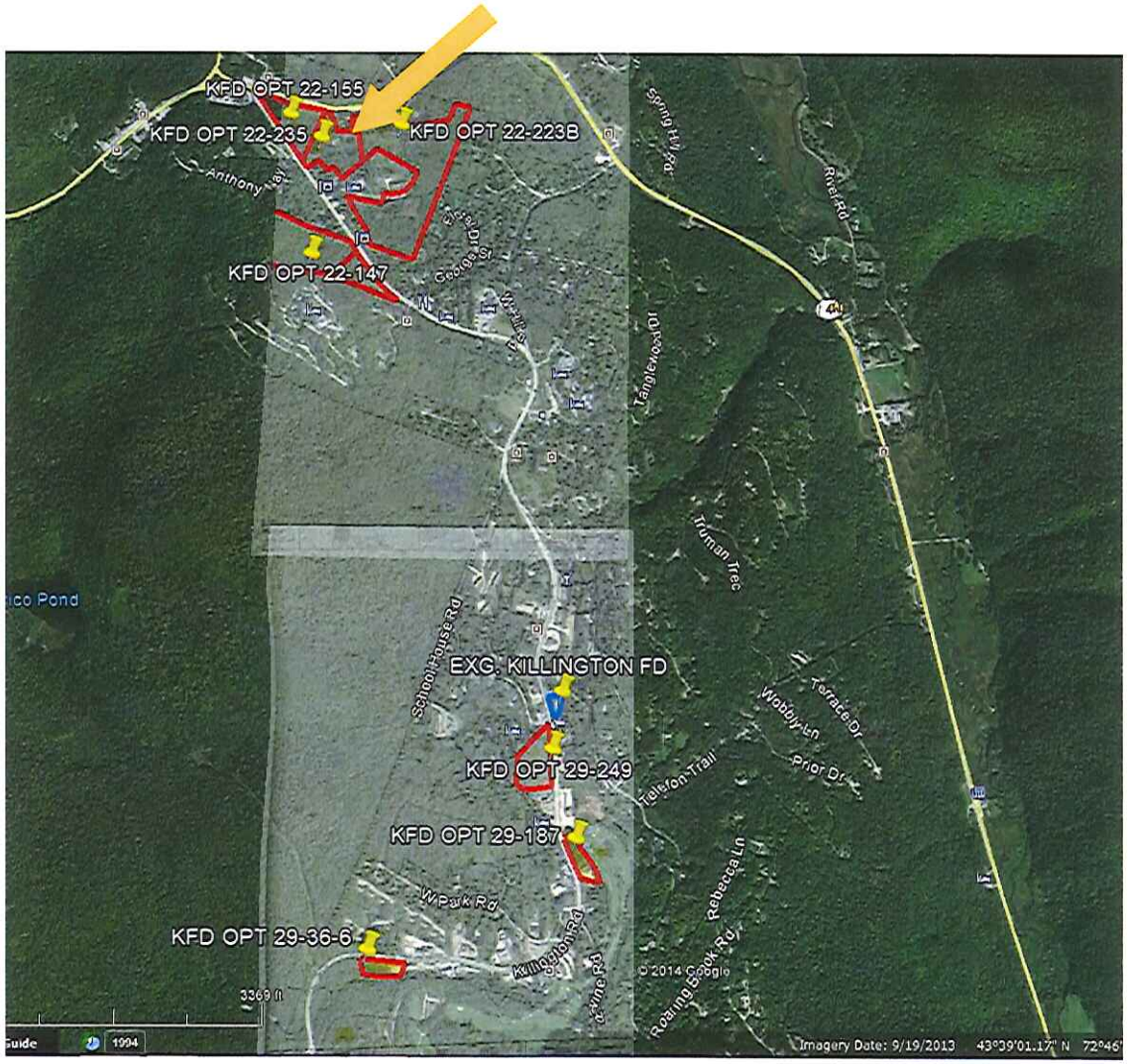
9.3 Acres

1.5 Miles from SVFD

Summary:

Slope to the terrain but seems moderate...better than 223B

Excellent frontage on both Rt 4 and Killington Rd



KILLINGTON OPTION 22-235

Owner: Gordon and Sammi Goes

Assessed Value: $270,000

May be in foreclosure

Contains house and garden on Rt 4 side of lot

10.4 Acres

1.5 Miles from SVFD

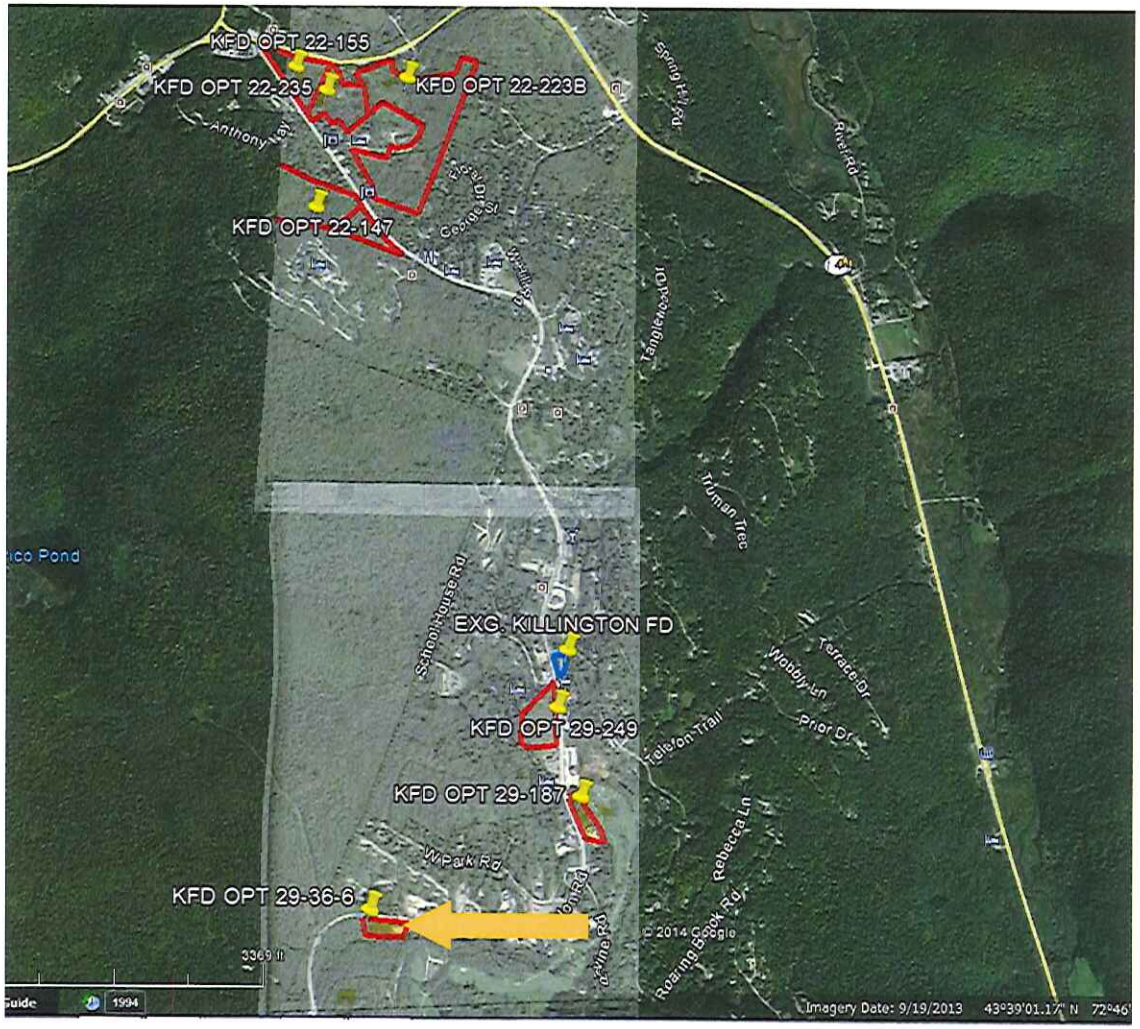
Summary:

Access to both Rt 4 and Killington Rd however very little road frontage on Rt 4 OR Killington Rd

Section with K Road access could be subdivided from house site

Topography seems better than 233B but has slopes

How does access thru Old Rt4 to the property work?



KILLINGTON OPTION 29-36

Owner: Killington Resort

Assessed Value: As part of the resort currently

South of the Killington Mall and north of proposed resort parking lot

1 Miles from SVFD

Summary:

From yellow magic marker, seems to be a small lot- what are dimensions?

Good frontage on Killington Road

Relatively level ground near road but slopes down

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ARCHITECTS, INC.

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(P) 978.499.2999
(F) 978.499.2944

MEETING MINUTES

DATE OF MEETING: 10 September 2014

PROJECT: Killington Fire Station Study

PROJECT NO.: 13-0667

SUBJECT: Design Meeting with Building Committee via telephone

ATTENDING:

Seth Webb (SW)	Killington Town Manager
Gary Roth (GR)	Killington Fire Department (KFD)
Chet Hagenbarth (CH)	Town of Killington DPW
Steve Finer (SF)	Killington Fire Department (KFD)
Joseph Petrarca (JP)	Dore & Whittier Architects Inc. (D&W)
Donald Walter (DW)	Dore & Whittier Architects Inc. (D&W)
Alan Brown (AB)	Dore & Whittier Architects Inc. (D&W)

1. The Design Team reviewed the latest site plan for the alternate site along Killington Road (site No. 249). Comments included:
   a. Show adequate number of first responders. Show at least 26 spaces
   b. Documents should be prepared to show how the Project would be phased.
   c. Snow removal should be a major consideration. As the design progresses, need to show how snow will be removed and/or controlled especially at the Apparatus Bays.

2. The Design reviewed the latest floor plan.
   a. Overall the Committee like the plan and it certainly flows better than the previous options on the existing site
   b. All agreed that it would be a benefit to the Town to have all the Town functions in one place.
   c. The arrangement of the Apparatus should be changed to have the tower truck on the outside. One of the bays should show the smaller trucks and not have the bay shown empty.
   d. The Design Team will change the name of this plan to Option Four which follows the previous options on the existing fire station site.

3. Project Phasing:
   a. Phase One:
      i. It was agreed to locate the EOC/Training Room where the Police Department is currently shown.
      ii. Eliminate the Sallyport and show as part of Phase Two
      iii. Look at reducing the size of the public bathrooms
      iv. Look at reducing the overall area to that of the previous Options in order to do apples to apples comparison.
   b. Phase Two

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i. The EOC/ Training Room and Public Toilets would be relocated where currently shown and the Police Department would be constructed within the walls where the Training Room was in Phase One.
ii. Construct the oval drive and some public parking if the Training Room is to be used by the public

c. Phase Three
i. Construct the Town Hall along with associated public parking

4. The design Team presented massing studies at various view points. They were well received with little comment. Some should be used as part of the power point presentation.

5. The Design team will develop cost estimates for the new option (Option Four) including phases as well as cost estimates for Options 1 thru 3. Site development costs will also be included in all the options. The Design team hopes to have the cost estimates by end of the day Friday 9-12-14 and sent to the Building Committee (BC) for review and comment.

6. The Town will determine what the estimated cost to purchase the land is for Option Four and let the Design Team know so it can be part of the Project Cost Estimate.

7. The Design team will prepare a revised draft of the power point for the upcoming presentation to the Selectmen scheduled for Tuesday 9-23-14 at 7:30 pm. The draft will be sent to the BC by 9-17-14 for their review and comment.

8. The power point should show a significant amount of the previous power point in order to convey the history of the Project. It should also illustrate why we are looking at this alternate site. Costs should also be included.

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Alan Brown, AIA, NCARB
Project Manager

Encl. Agenda for 9-10-14 meeting
Site Plan for Alternate Site
Floor Plan for Alternate Site
Various massing studies for Alternate Site

c:	Seth Webb	Killington Town Manager
	Gary Roth	Killington Fire Department
	Steve Finer	Killington Fire Department
	Robert Montgomery	Killington Police Department
	Chet Hagenbarth	Town of Killington DPW
	Zach Zettler	CR Architecture + Design
	Matt Murtha	CR Architecture + Design
	Kevin Worden	Engineering Ventures
	Bob Neeld	Engineering Ventures
	Chris Wheeler	Christopher Wheeler Engineering
	Alan Gould	Pearson and Associates
	Peter Bradley	PM&C
	DMW/LPD/File	

DORE & WHITTIER
ARCHITECTS, INC.

Meeting Agenda

September 10, 2014
10:00 am
Killington Public Safety
Killington, VT
Alternate Site and Building Plan

---

1. Review floor plan
2. Review site plan
3. Review Conceptual Building massing
4. Status of Cost Estimate
    a. Plan to have conceptual cost estimate by 9-12-14
    b. Site Improvements for all Previous Options and Alternate Site
    c. Cost to purchase Alternate site – to be determined by Town
5. Next Steps/ Schedule
    a. Preparation of Draft Power Point Presentation by 9-17-14
    b. Review and input by Building Committee by 9-19-14
    c. Presentation to Board of Selectmen 9-23-14
    d. Complete Feasibility Study

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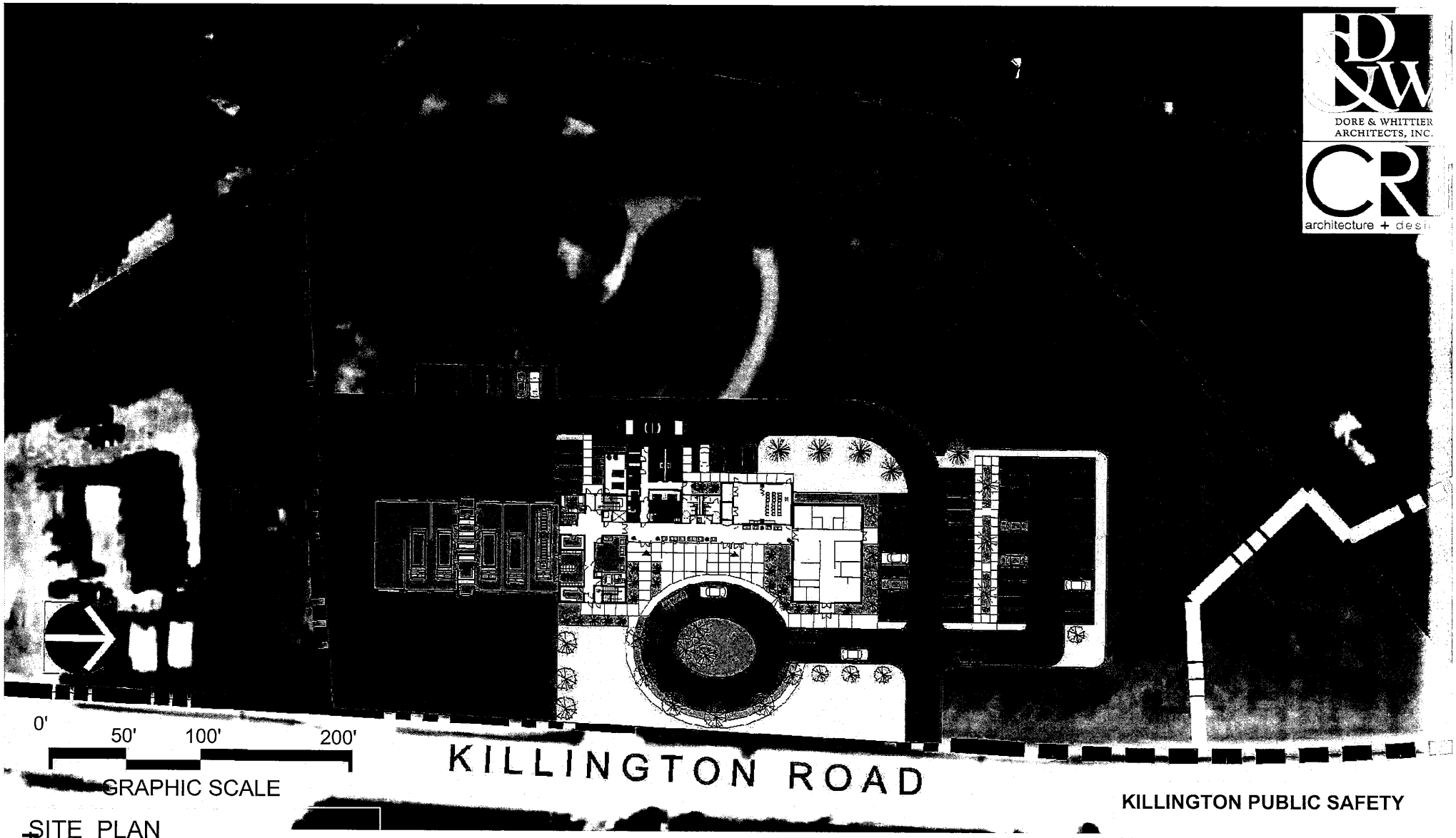


DORE & WHITTIER ARCHITECTS, INC.

CR architecture + design

SITE PLAN

SCALE: 1" = 60'- 0"

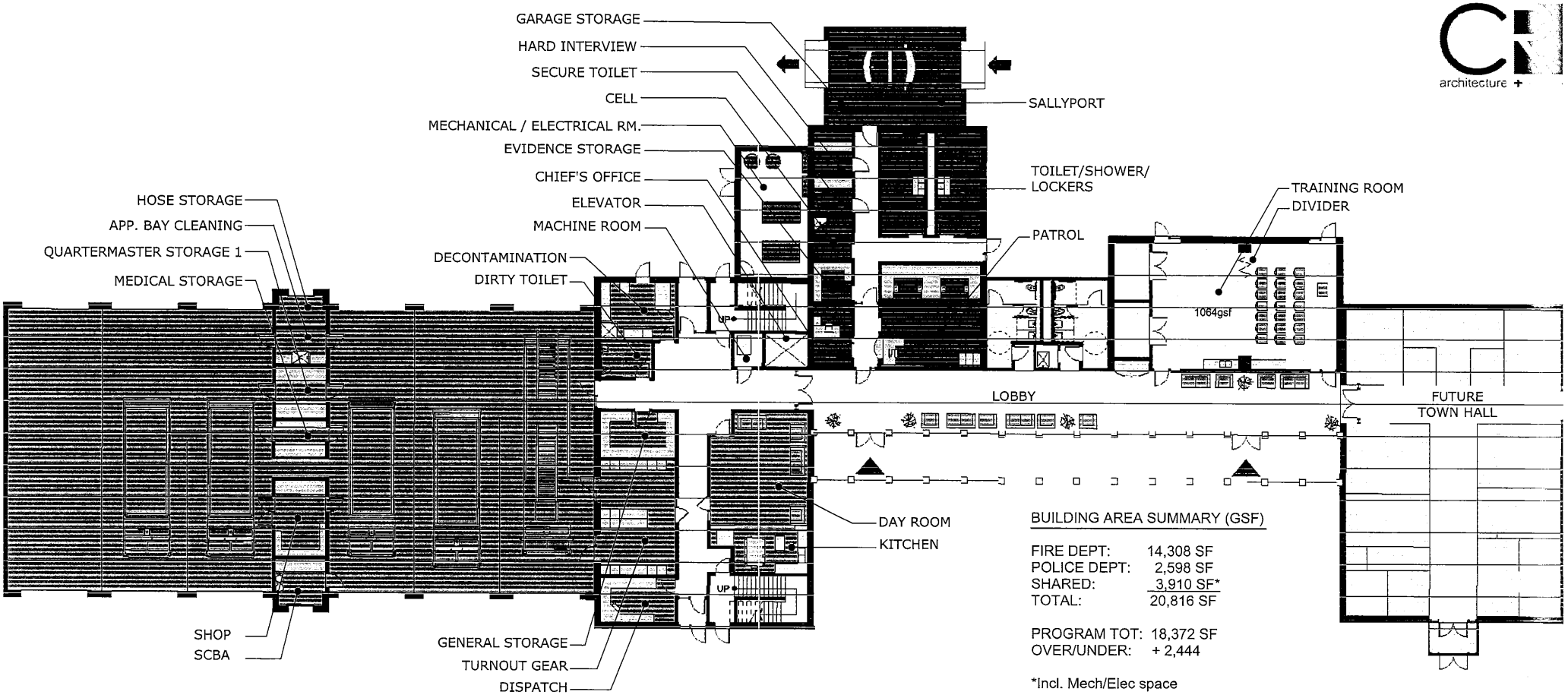
KILLINGTON PUBLIC SAFETY

KILLINGTON, VT
SITE 249: OPTION 2
10 SEPTEMBER 2014

KILLINGTON PUBLIC SAFETY
SITE 249: OPTION 2
10 SEPTEMBER 2014

DORE & WHITTIE ARCHITECTS, INC

CR architecture +



BUILDING AREA SUMMARY (GSF)

FIRE DEPT:	14,308 SF
POLICE DEPT:	2,598 SF
SHARED:	3,910 SF*
TOTAL:	20,816 SF

PROGRAM TOT:	18,372 SF
OVER/UNDER:	+ 2,444

*Incl. Mech/Elec space

FUTURE TOWN HALL
DRAWN AS: 2 STORY, 6,000 SF TOTAL

0 5' 15' 25' 50'
GRAPHIC SCALE

NORTH

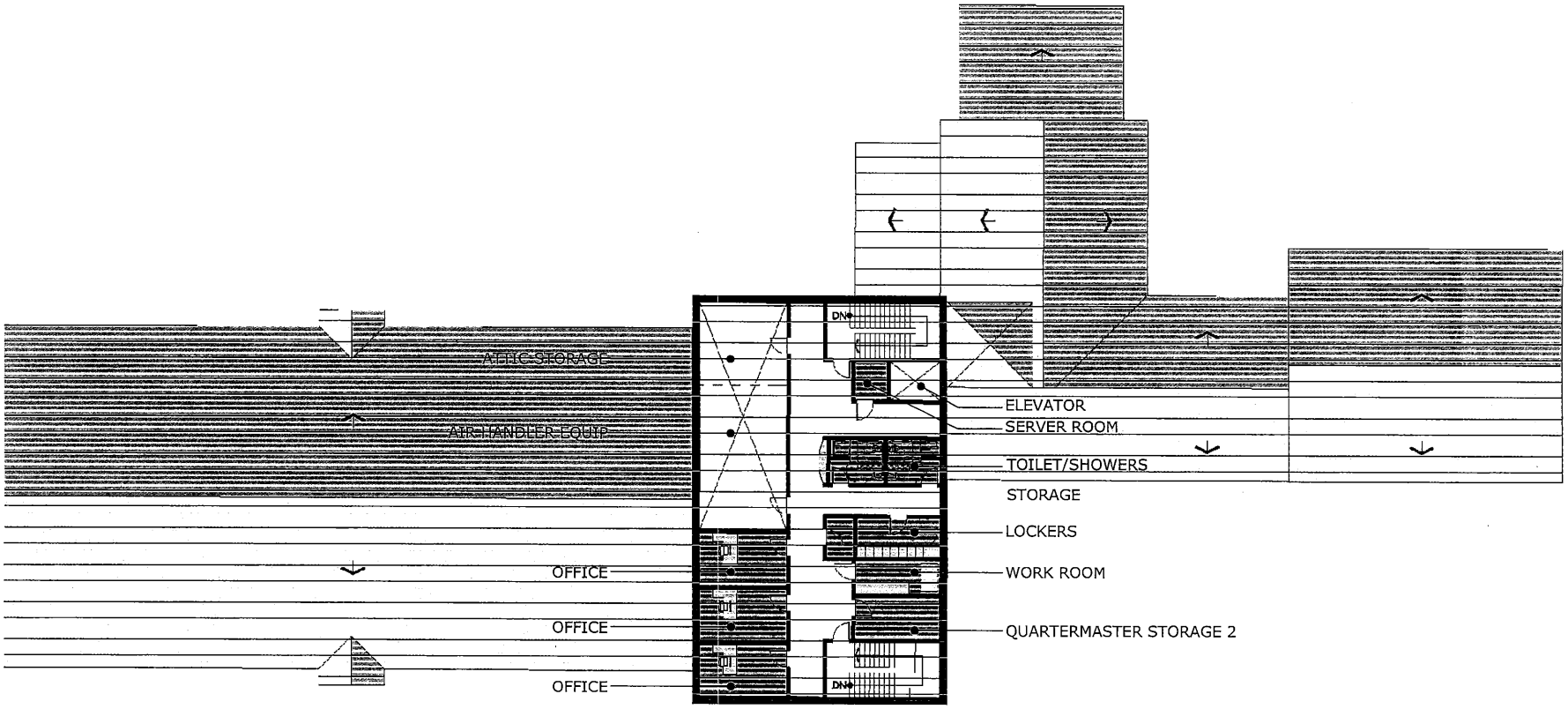
FIRST FLOOR PLAN

SCALE: 1" = 20'- 0"

KILLINGTON, VT
SITE 249: OPTION 2
10 SEPTEMBER 2014

DORE & WHITTIE
ARCHITECTS, INC

architecture +



0 5' 15' 25' 50'

GRAPHIC SCALE

NORTH

SECOND FLOOR PLAN

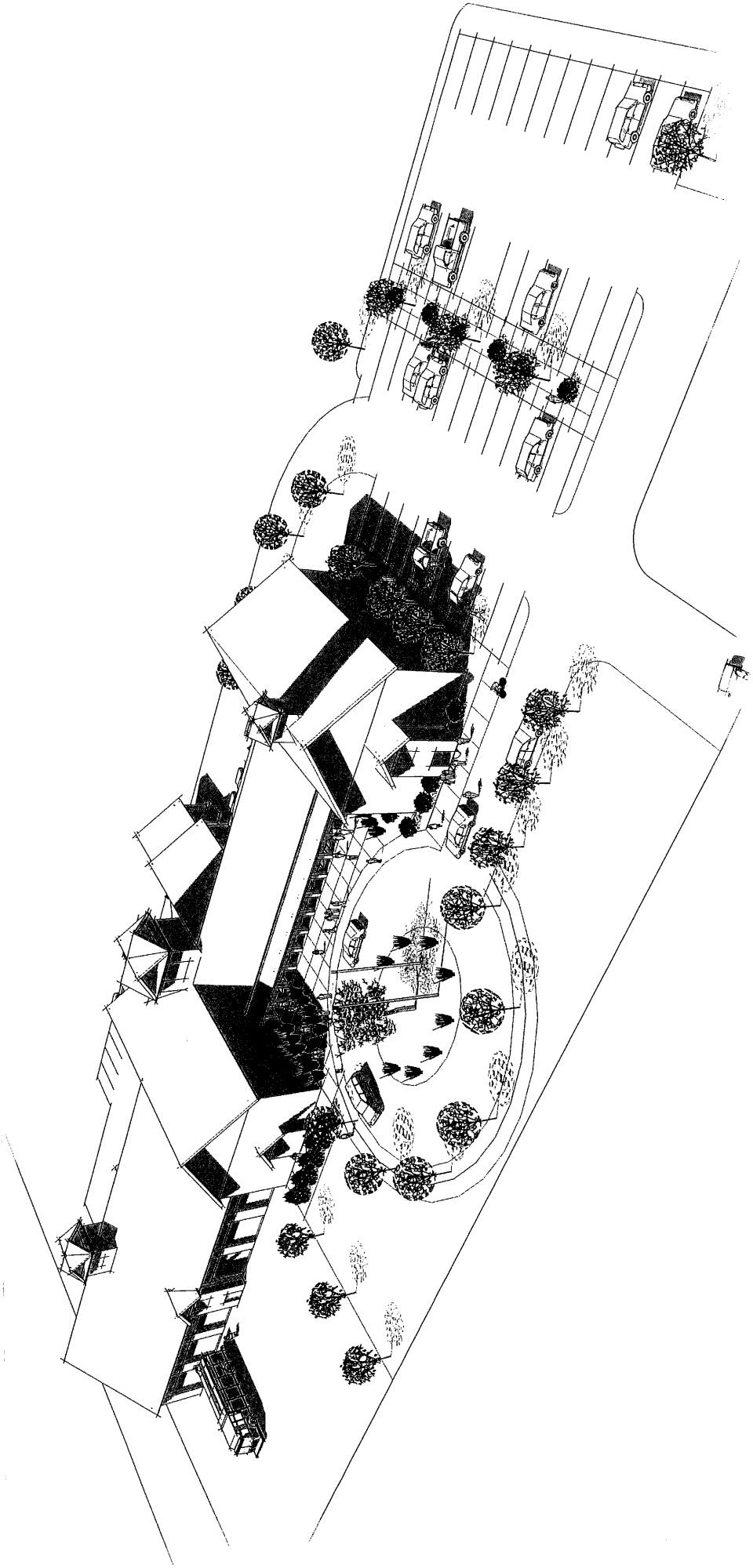
SCALE: 1" = 20'- 0"

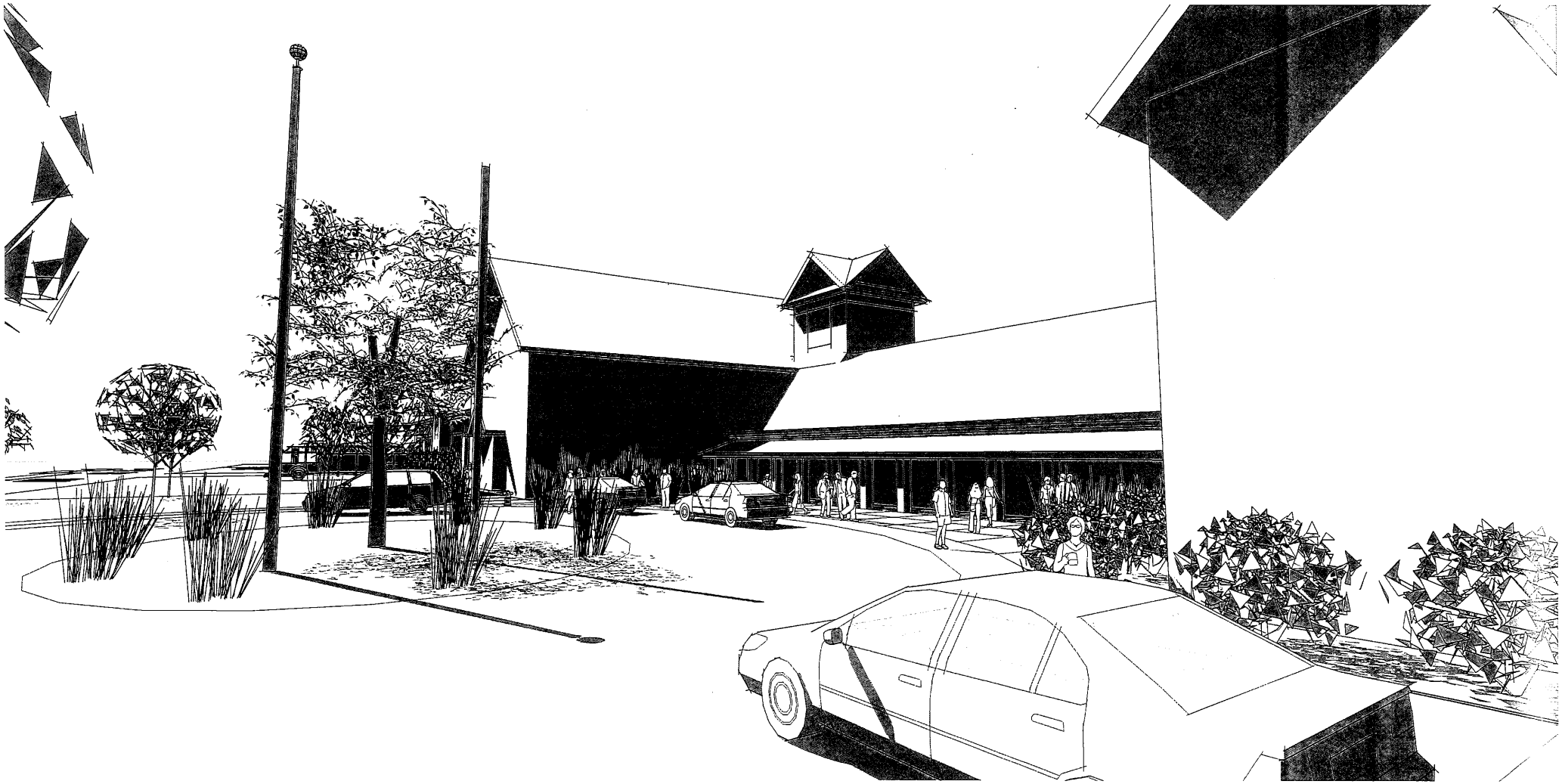
BUILDING AREA

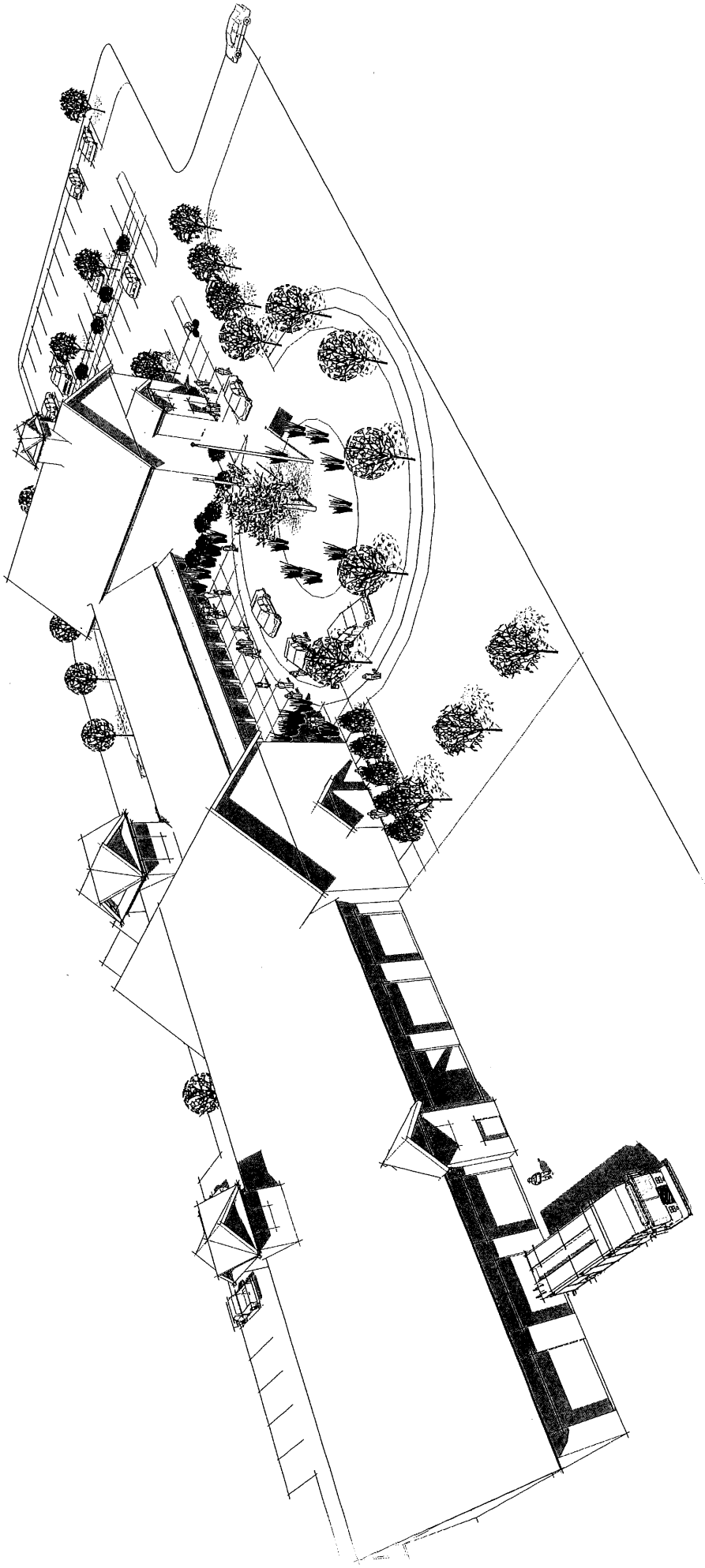
FIRE DEPT. : 2940gsf

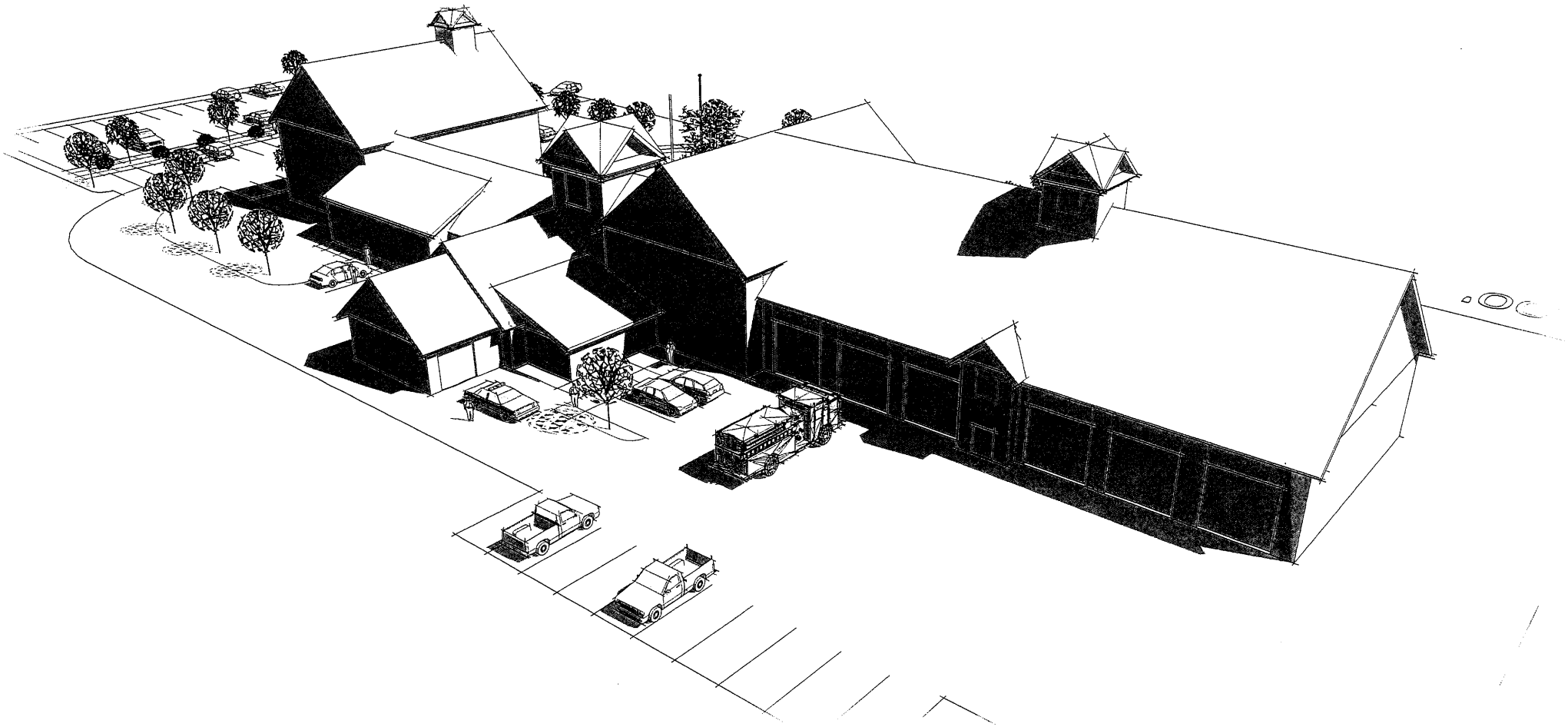
(ALREADY CALCULATED AS PART OF FD ON SUMMARY)

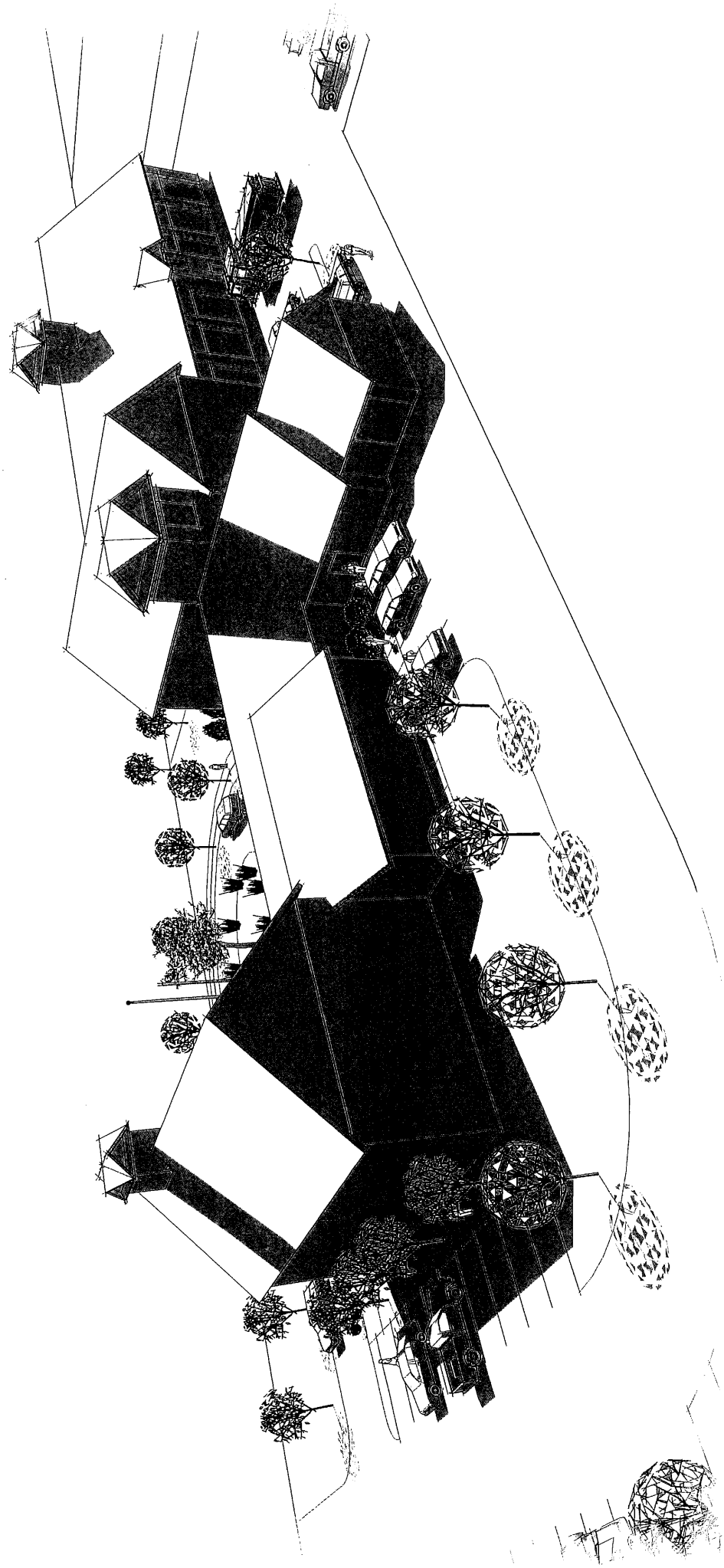
KILLINGTON ROAD

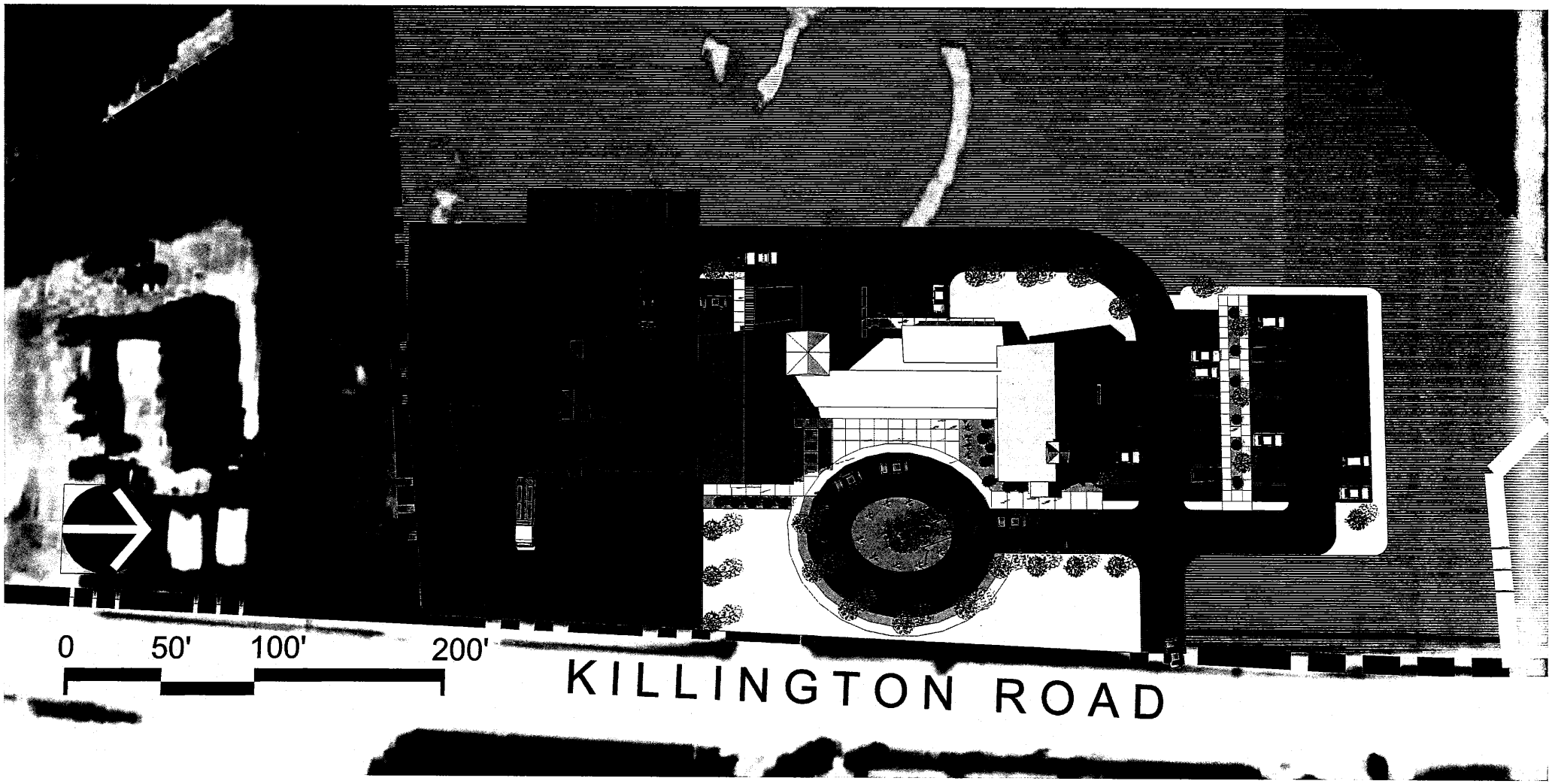


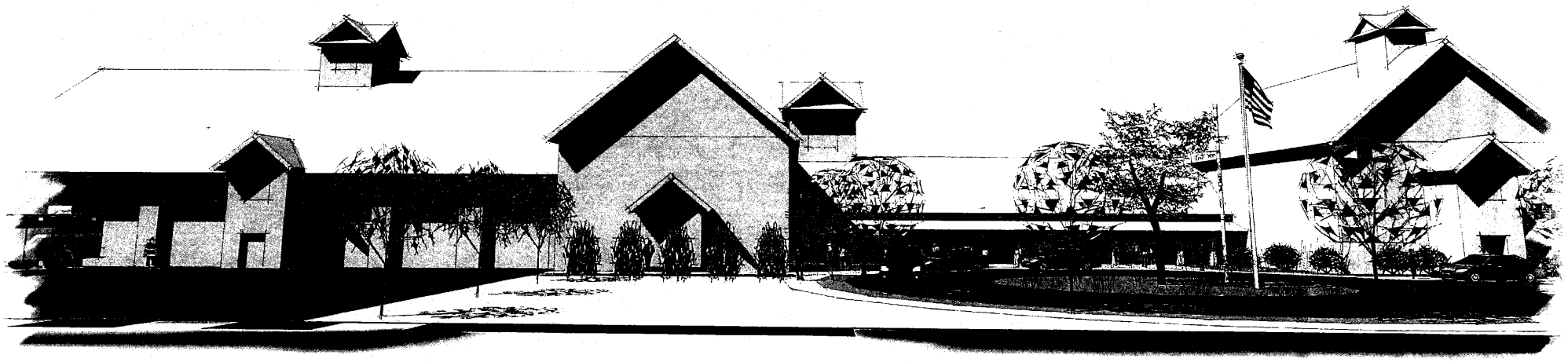









KILLINGTON ROAD
0
50'
100'
200'



TOWN OF KILLINGTON VERMONT

Special Selectboard Meeting Summary

Tuesday, July 8, 2014

10:00 a.m.

The Selectboard met to hear the initial report from Architects, Dore and Whittier, who were hired by the Town to review the Fire Department facilities (two stations) and provide recommendations for renovating the aging facilities. The final report will be issued later this summer.

The Architects recently conducted a comprehensive existing conditions assessment, site analysis, programming and conceptual design for the Fire facilities.

They reported that the current stations are in disrepair and no longer meets state criteria or the needs of the volunteer fire department. Their assessment noted the following:

- The 1974 building on Killington Road has uneven floors, inefficient insulation, plumbing and electricity, no cross ventilation and not enough storage for equipment, and other problems
- With a lack of proper storage for the turnout gear, the gear is exposed to soot and sunlight, both factors that play a part in deterioration of the expensive equipment.
- The station is also missing a sprinkler system, a criteria for new stations being built or old ones undergoing serious renovations
- The station is very close to Killington Road, creating safety hazards for the Department and disrupting traffic. Fire stations are typically set back 50-60 feet from the road, not 5 or 6 feet.
- The building lacks two means of egress are which are required for exiting
- Building does not meet handicap accessibility or ADA Code
- The number of toilets need to be increased to meet plumbing code
- An Elevator is required for all public funded buildings, which the current building does not have
- The lack of room in the vehicle bays, causes firefighters to be exposed to unsafe exhaust
- The second station on River Road will require a significant investment to effectively accommodate the current equipment in the years to come

The Architects presented options to consider including: a renovation of the building, additions to the building, or demolishing it to build a new one. Some options included combining the River Road Station into the Killington Road Station. All options required purchasing more of the surrounding property to establish a parking lot (parking for the current facility is located on an adjacent property)

Other possibilities included adding a police department onto the fire station to give the Killington police a more stable home base and clump the emergency services together for convenience. Both departments would be able to share a wide variety of resources, including radio towers and conference rooms.

In reviewing all the options, the Board concurred with the Architects, that the size of the existing lot was a major limitation.

- The Killington Road lot is less than one acre and currently much of the parking for the facility is located on another parcel (private property)
- The building is close to an existing stream, and while there is currently no FEMA flood plain designation, flood waters have come close to the station
- There is currently no storm water management but this would be required if any redevelopment occurs
- A 35,000 gallon water storage tank and pumps from Roaring Brook and would have to be replaced if there was an extensive remodel
- To accommodate a renovation, additional land would need to be purchased

As the options need to be refined to include enough detail to provide accurate cost estimates, costs were not discussed. Estimated costs will be presented in subsequent meetings.

Based on the feedback from the Board, the Architects and Fire Department were able to narrow their search and eliminate what was expected to be the largest and likely most expensive option. The team will now work to flesh out two options for the Town to consider, which will include comprehensive cost estimates:

1. Tear down the existing building and construct a new building on the current site
2. Construct a new building on new site

In addition the architects will provide an estimate for bringing the current building up to code in the short term, while the future of the Fire Department Facilities is determined. The architects will provide phasing options for next steps on both options.

The Board will take the issue up again when the study is completed later this summer.