

Norwich Vermont: Comparison of Potential Sites for Co-Location of Police and Fire Departments				
Site Evaluation		Site 1 11 Firehouse Lane - 10 Hazen Street	Site 2 80 US Route 5 (Event Center)	Site 3 198 Church Street (ABC Dairy)
1.	Lot Size (Approx.)	1.20 Acres	4.5 Acres	10.3 Acres
2.	Site Description	Existing fire and police site located in town. Access to site from Main Street through easement from University Grange. Access to site from Hazen Street through unspecified right of way. Paved access drives and parking areas. Relatively flat site.	Event Center site south of town across from Subaru dealership. Adjacent site with Event Center main building included in site purchase, but not reusable for fire or police. Site slopes away from Route 5 by +/- 18' at the north-western tree line. Gravel parking area.	ABC Dairy site east of town adjacent to Interstate 91. Site gradually slopes up from Church street +/- 8'. Existing 4,200 GSF building, paved drive and gravel parking area. Site is clear of trees.
3.	Utilities	Existing water and electric in place. Size of site and alternate layouts should not trigger the need for stormwater permits. On-site wastewater disposal will be difficult.	Electric in place, currently no access to public water.	Electric in place as is public water. May require service upgrade to meet demand of fire and police operations. Site will most likely need stormwater permits.
4.	Cost of Acquisition of Site	Town Owned	Unknown, purchase includes (2) sites	Unknown
5.	Response Time	No change	Located 0.70 road miles south of intersection of Main Street and Church Street.	Located 0.64 road miles east of intersection of Main Street and Church Street.
6.	Zoning Compliance	Maintain existing easement and right of way access. May need to look at public access from main street.	As a "change of use" this property will require a drive permit from the Vermont Agency of Transportation.	As a "change of use" this property will require a drive permit from the Vermont Agency of Transportation.
7.	Site Circulation: Separation of public and emergency vehicle traffic, pedestrian circulation and public and fire and police parking areas	Fire department access and discharge to Main Street. Police department and public access from Hazen Street. Hazen Street acces drive is very narrow. No sidewalks to guide any pedestrian traffic into site. Fire, police and public share parking area behind buildings. This is a problem for fire calls.	Public parking is separate from both fire and police parking, but share same access drive off of Route 5. Fire parking would be adjacent to apparatus bays. Police have access to private parking which can be located to include access to a future sallyport.	Split access drive for public, police and fire. Grassroots soccer to remain on site. Public parking and Grassroots parking area are separated from fire and police. Access to fire parking behind building. Police have access to private parking with ability to accommodate future sallyport.
8.	Parking Capacity: Public and Departmental Spaces	Approx. 20 public spaces Approx. 4 dedicated police spaces Approx. 14 dedicated fire spaces	Approx. 36 public spaces Approx. 5 dedicated police spaces Approx. 16 dedicated fire spaces	Approx. 24 public spaces (shared with Grassroots Soccer) Approx. 5 dedicated police spaces Approx. 18 dedicated fire spaces
9.	Image: Community Visibility	Poor site lines from Main Street and Hazen Street. Mature trees and buildings block a majority of view into site. Importance of being in town.	Visible from Route 5, although building will be significantly lower than the road.	Visible from Church Street. Tree line against Church Street has minimal impact on view into site.
10.	Future Expansion Capacity	Only significant expansion space for this site is to build second floor space for both departments.	Ability to expand on all edges of a new building. However, grade is a major concern.	Ability to expand to the south and east sides of the site.
11.	Constraints: Factors that could add cost to project	A tight site could result in needing to build a 2-story structure, which would add cost of elevator and (2) egress stairs. Potential cost to upgrade structure to meet current code requirements.	Site work for any building layout option will be expensive. Existing grade will result in walk-out basement and greater foundation costs or significant cost to truck in fill. Cost of demolishing existing Event Center building.	Potential cost to upgrade structure of existing building to meet current code requirements and general industry standards including energy efficiency.
12.	Constraints: Factors that could impact functional needs	A tight site could result in needing a second floor for fire and/or police program space and restricts ability to provide adequate parking.	Sharing the same driveway for public, police and fire vehicular access.	Proximity of police department to Grassroots Soccer.
13.	Amenities: Factors that could decrease project cost	Potential to re-use existing apparatus bays **(Pending review by the state to determine if existing structure is compliant with new code definitions) No land acquisition costs.		Potential to re-use existing building for police program **(Pending review by the state to determine if existing structure is compliant with new code definitions)
14.	Amenities: Factors that could benefit functional needs	Keeping fire and police in town should ease public concerns with response times.	Ability to expand facility for both fire and police as demands and services change. Larger parking capacity allows for larger activities to take place on site (public or departmental) and not affect emergency response.	Ability to expand facility for both fire and police as demands and services change.
15.	Sustainable Design: Factors that improve the energy efficiency or sustainable approach	Re-use of previously developed site and potential re-use of existing fire building.	Site has long axis to the south-east for good solar orientation.	Site has open access to the south for good solar orientation.

Norwich Vermont: Comparison of Layout Options for Fire and Police - 11 Firehouse Lane / 10 Hazen Street						
Layout Option Evaluation	Layout #1 New 4-bay Apparatus Structure and 2-story Fire and Police Admin Structure.		Layout #4B Re-use existing apparatus bays. New 2-story Fire and Police Admin Structure.		Layout #5 New 3-bay Apparatus Structure and 2-story Fire and Police Admin Structure.	
	PROS	CONS	PROS	CONS	PROS	CONS
1. Site Layout	Maintains current Main Street easement for fire/police only	Poor visibility and site lines	Site prep only for building footprint and new parking area	Poor visibility and site lines	Separate fire/police and public entry access	Poor visibility and site lines
	Previously developed site	Space required for stormwater and septic systems	Previously developed site	Space required for stormwater and septic systems	Previously developed site	Tight site restricts ability to maximize parking
	Possibility for some future expansion	Fire and police parking share drive for fire apparatus	Separation maintained from housing units to the east	Little to no ability for future expansion of facility	Minimal grade work to accommodate new building	Space required for stormwater and septic systems
	Separate public and emergency access	No connection between access drives through site	Existing surrounding tree line stays largely intact	"Front door" of building faces the back of the site	Ability to add (1) additional apparatus bay to the south	Little to no ability for future expansion of facility
		Inadequate amount of parking for event plus emergency			More realistic amount of available parking	
2. Fire Department Functionality	4-bays allows for adding future apparatus without expansion		Re-use of existing apparatus bays	Program spaces split between 2 levels	Longer apron for training	Program spaces split between 2 levels
	Large apron for training		On-site parking for responders	no additional space gained for future apparatus	Requirement for stair tower can provide training space	no additional space gained for future apparatus
	Parking adjacent to apparatus bays				Parking adjacent to apparatus bays	Apparatus addition would cut main street access to parking
					Dayroom/kitchen located on second floor for privacy	
3. Police Department Functionality	Dedicated parking adjacent to building		Dedicated parking adjacent to building		Dedicated parking adjacent to building	Minimal space for expansion
	Ability to share common spaces with fire department		Ability to share common spaces with fire department		Ability to share common spaces with fire department	
	Future expansion capabilities		Future expansion capabilities			
4. Layout Option Cost Factors	4-bay option is most efficient use of space	Cost of elevator and (2) egress stairs	Potential re-use of existing apparatus bays	Cost of elevator and (2) egress stairs		Cost of elevator and (2) egress stairs
		Stormwater and septic systems	Least amount of site work of 3 options at this location	Cost of upgrading existing structure to meet new codes and general industry standards including energy efficiency.		Stormwater and septic systems

Norwich Vermont: Comparison of Layout Options for Fire and Police - 198 Church Street (ABC Dairy)						
Layout Option Evaluation	Layout #1 - Breadloaf Police located in existing building. New addition for Fire Department		Layout #2 - Dan Winney Re-use existing apparatus bays. New 2-story Fire and Police Admin Structure.			
	PROS	CONS	PROS	CONS		
1. Site Layout	Long site lines	Not a lot of public parking	Long site lines	Anyone arriving at the site shares the same access drive		
	Separate Grassroots parking	Anyone arriving at the site shares the same access drive	Separate Grassroots parking	Loop road and sidewalk extend far to the east		
	"Front Door" image upon entering site					
2. Fire Department Functionality	Large apron for training	Proximity to Grassroots Soccer	Large apron for training	Parking adjacent to apron		
	Parking adjacent to apparatus bays			No additional space gained for future apparatus		
	4 bays allow addition of future apparatus without expansion					
3. Police Department Functionality	Private parking behind building	Minimum police presence in front of building				
		Proximity to Grassroots Soccer				
4. Layout Option Cost Factors	4-bay layout is most efficient use of space	Upgrade of building structure to meet new codes.		Upgrade of building structure to meet new codes.		
		Large amount of pavement		Large amount of pavement		

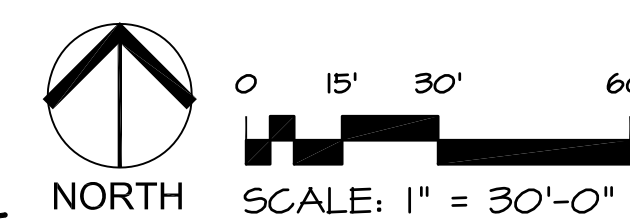




OPTION #1:
7,427 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #1

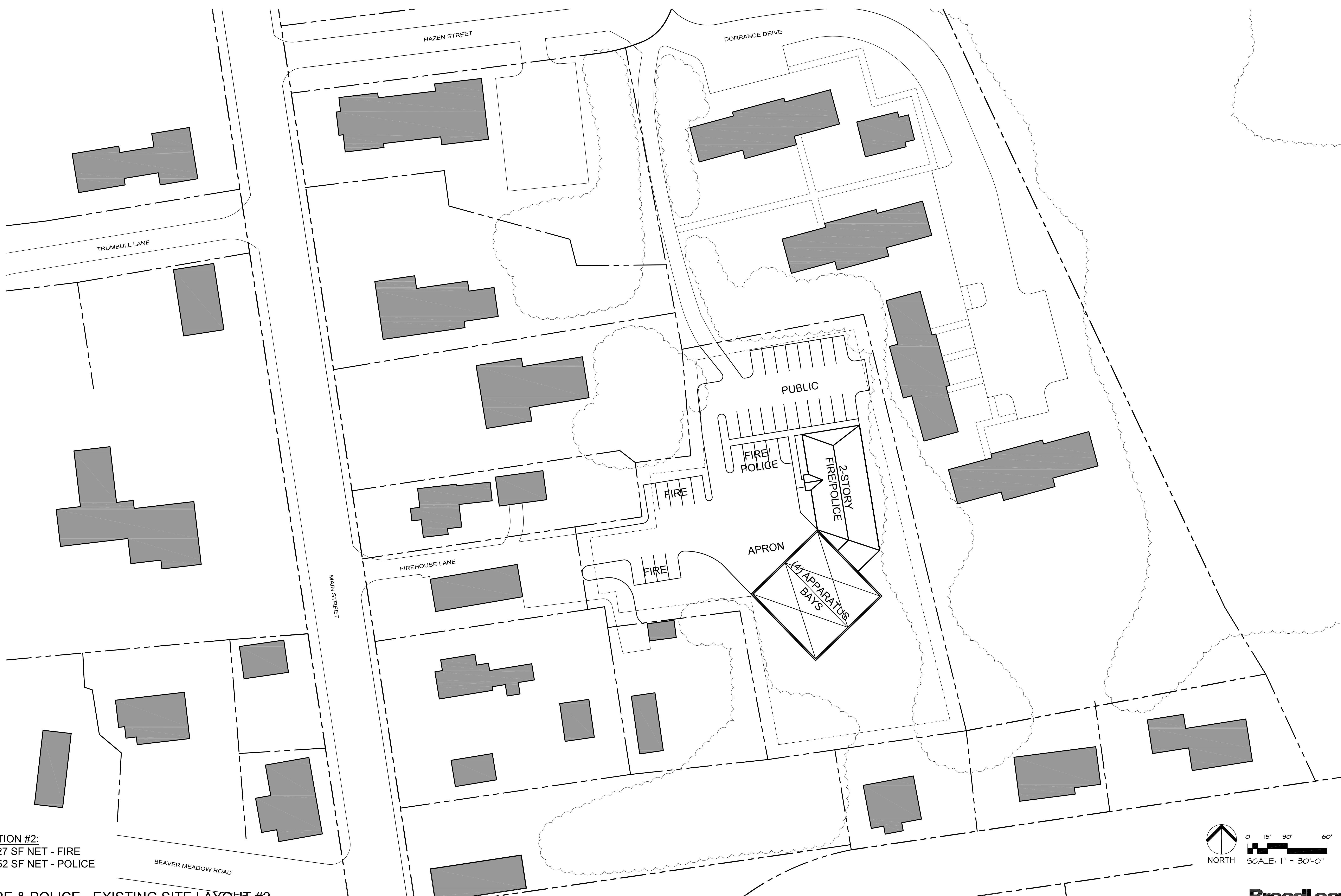
TOWN OF NORWICH, VT



OPTION #2:
7,427 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #2

TOWN OF NORWICH, VT



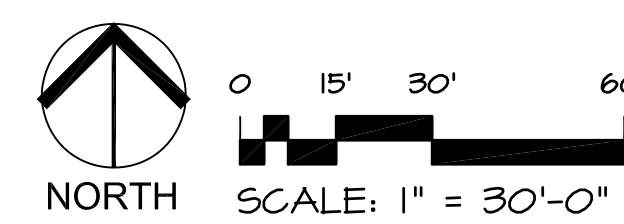
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SCALE: 1" = 30'-0"



OPTION #3:
7,627 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #3

TOWN OF NORWICH, VT

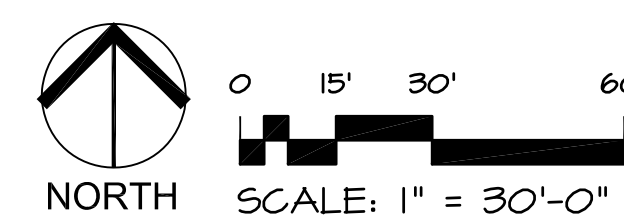




OPTION #4A:
6,923 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #4A

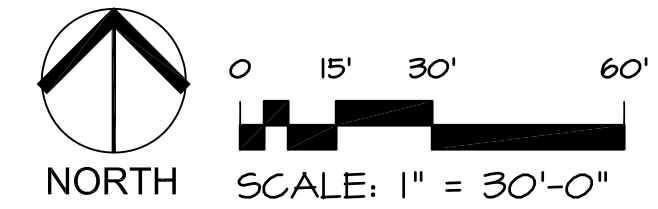
TOWN OF NORWICH, VT

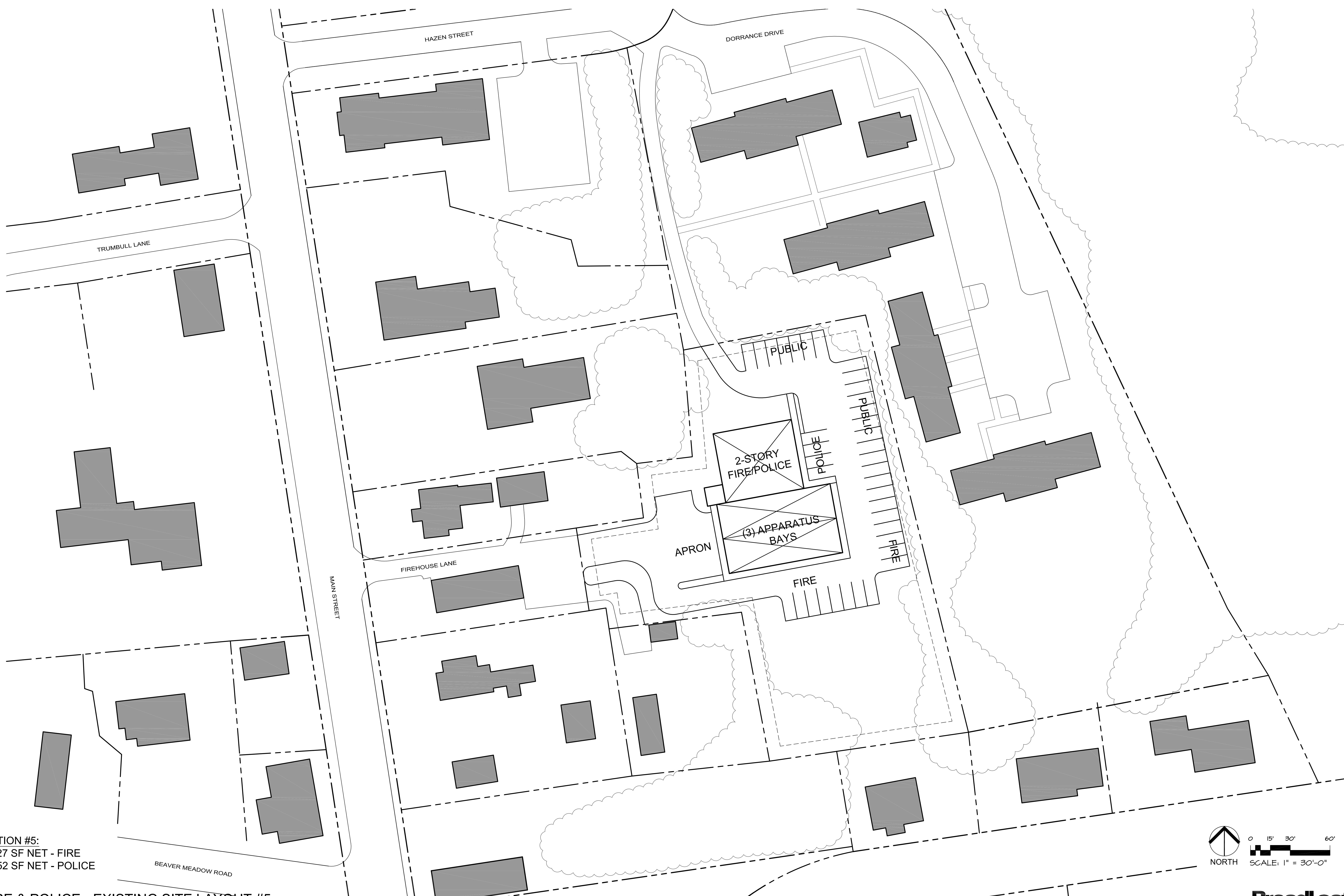




OPTION #4B:
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 2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #4B
 TOWN OF NORWICH, VT

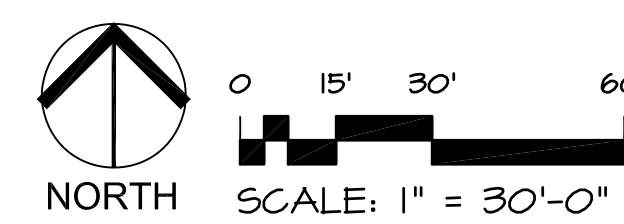




OPTION #5:
7,627 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #5

TOWN OF NORWICH, VT

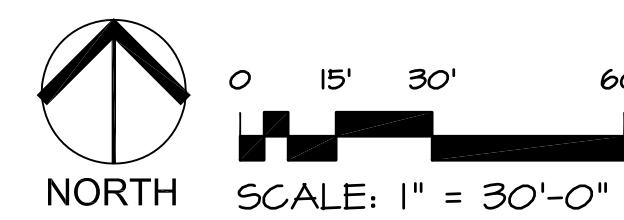


11.01.2013

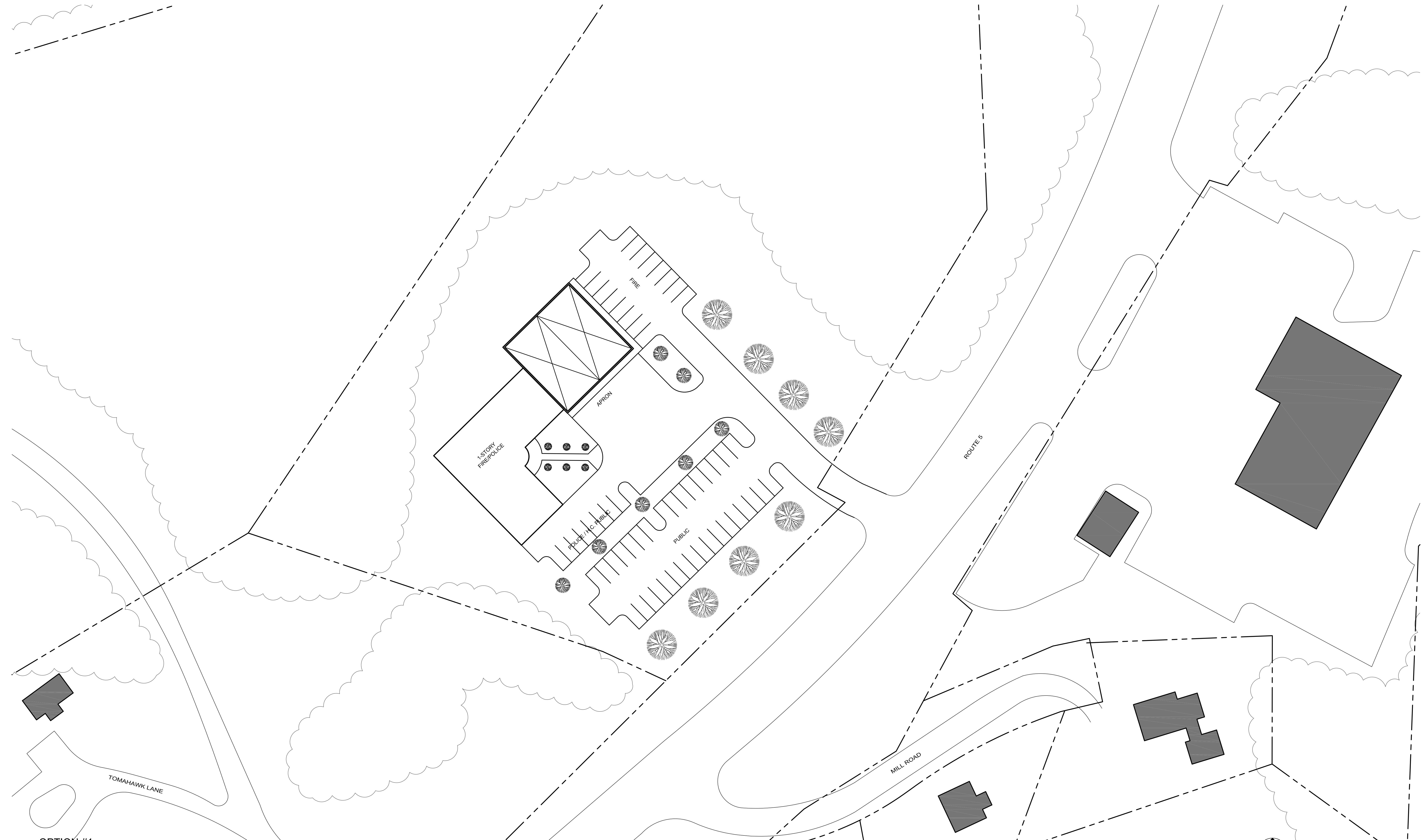
OPTION #6:
7,627 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - EXISTING SITE LAYOUT #6

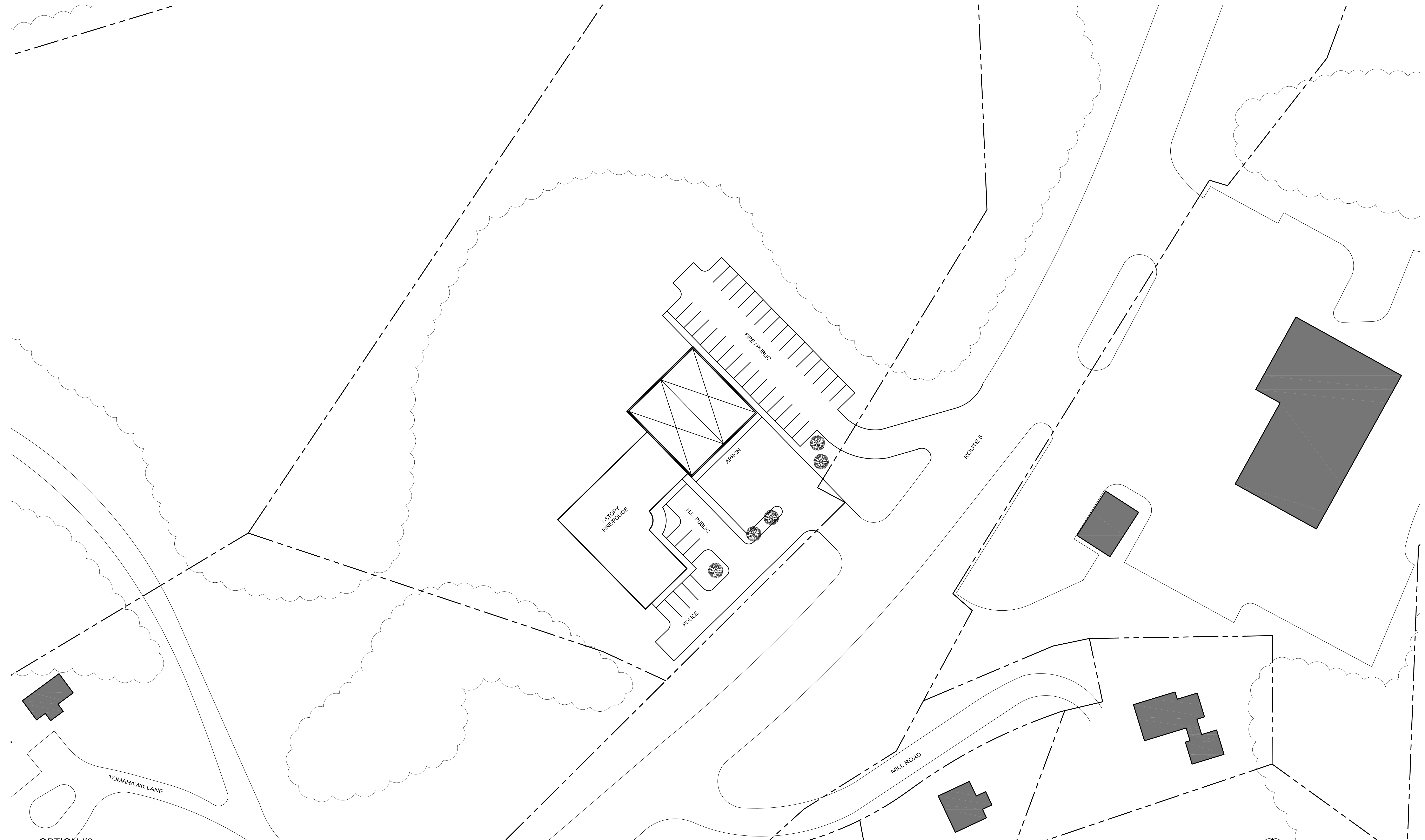
TOWN OF NORWICH, VT



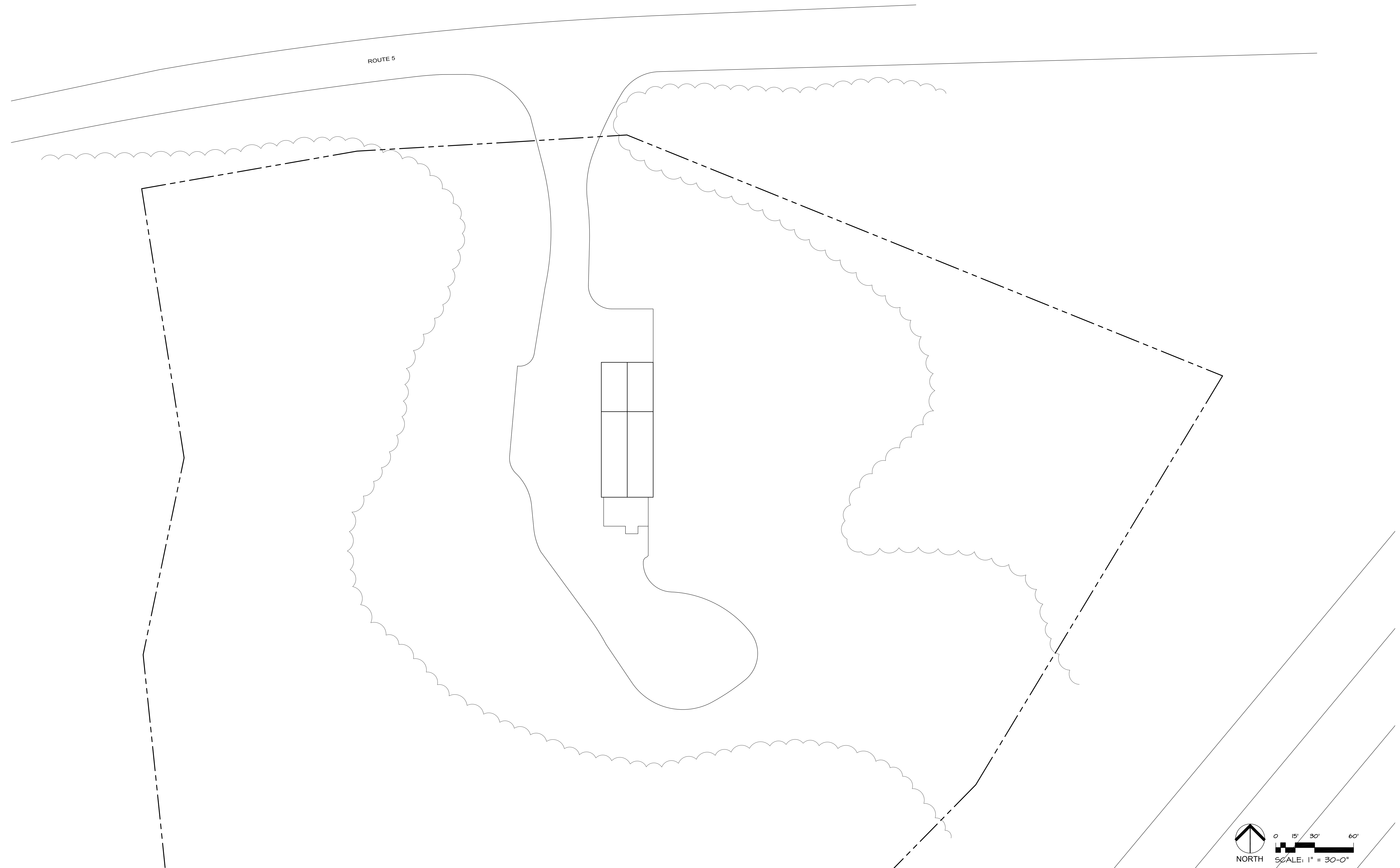




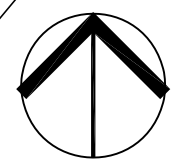
OPTION #1:
7,427 SF NET - FIRE
2,552 SF NET - POLICE



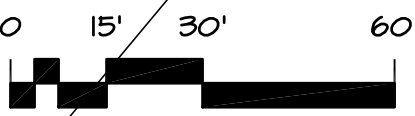
OPTION #2:
7,427 SF NET - FIRE
2,552 SF NET - POLICE



FIRE & POLICE - ABC DAIRY SITE
TOWN OF NORWICH, VT



NORTH



0 15' 30' 60'

SCALE: 1" = 30'-0"

BreadLoaf

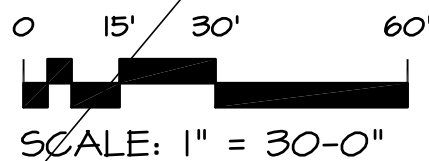
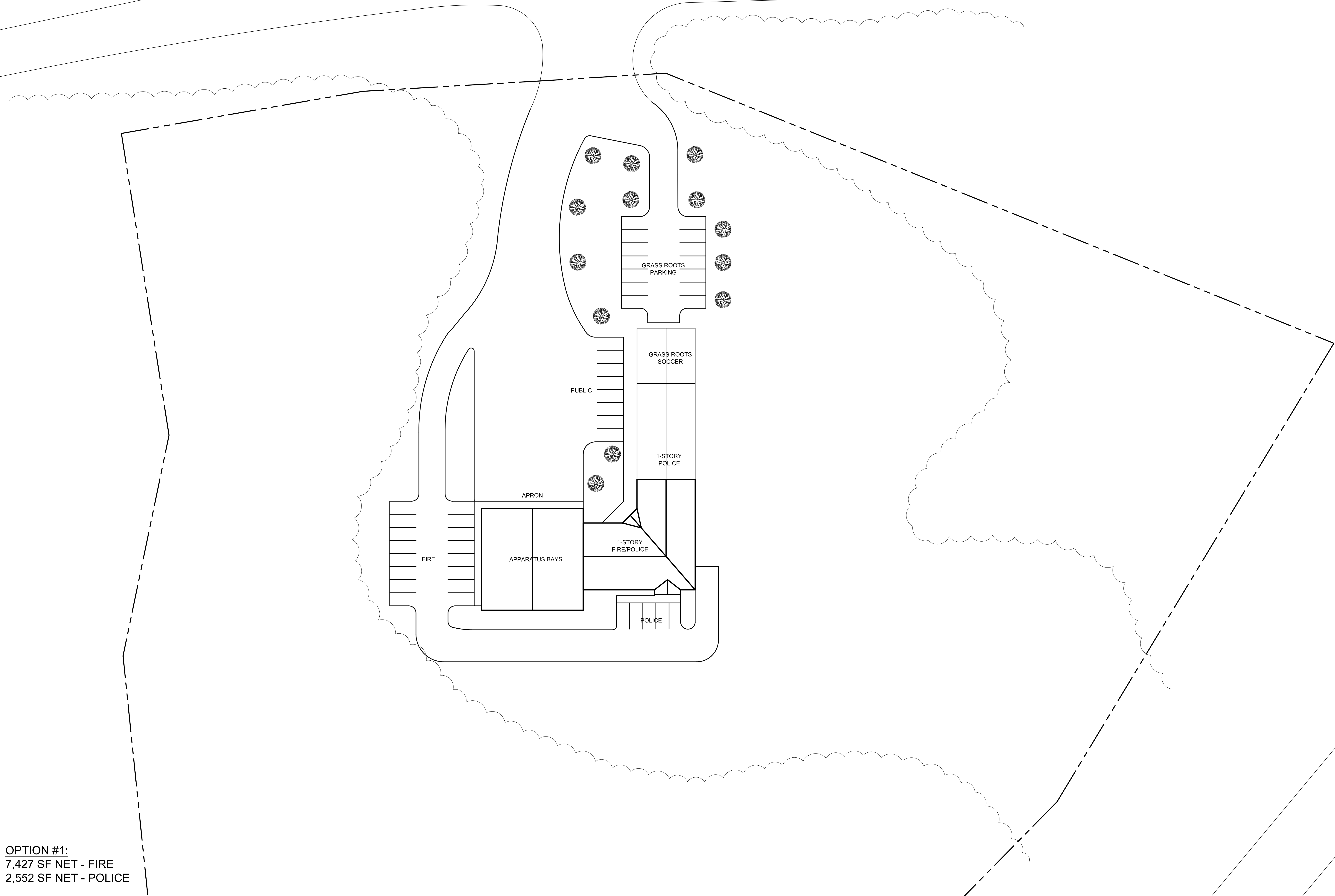
Architects
Planners
Builders

11.01.2013

ROUTE 5

OPTION #1:
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2,552 SF NET - POLICE

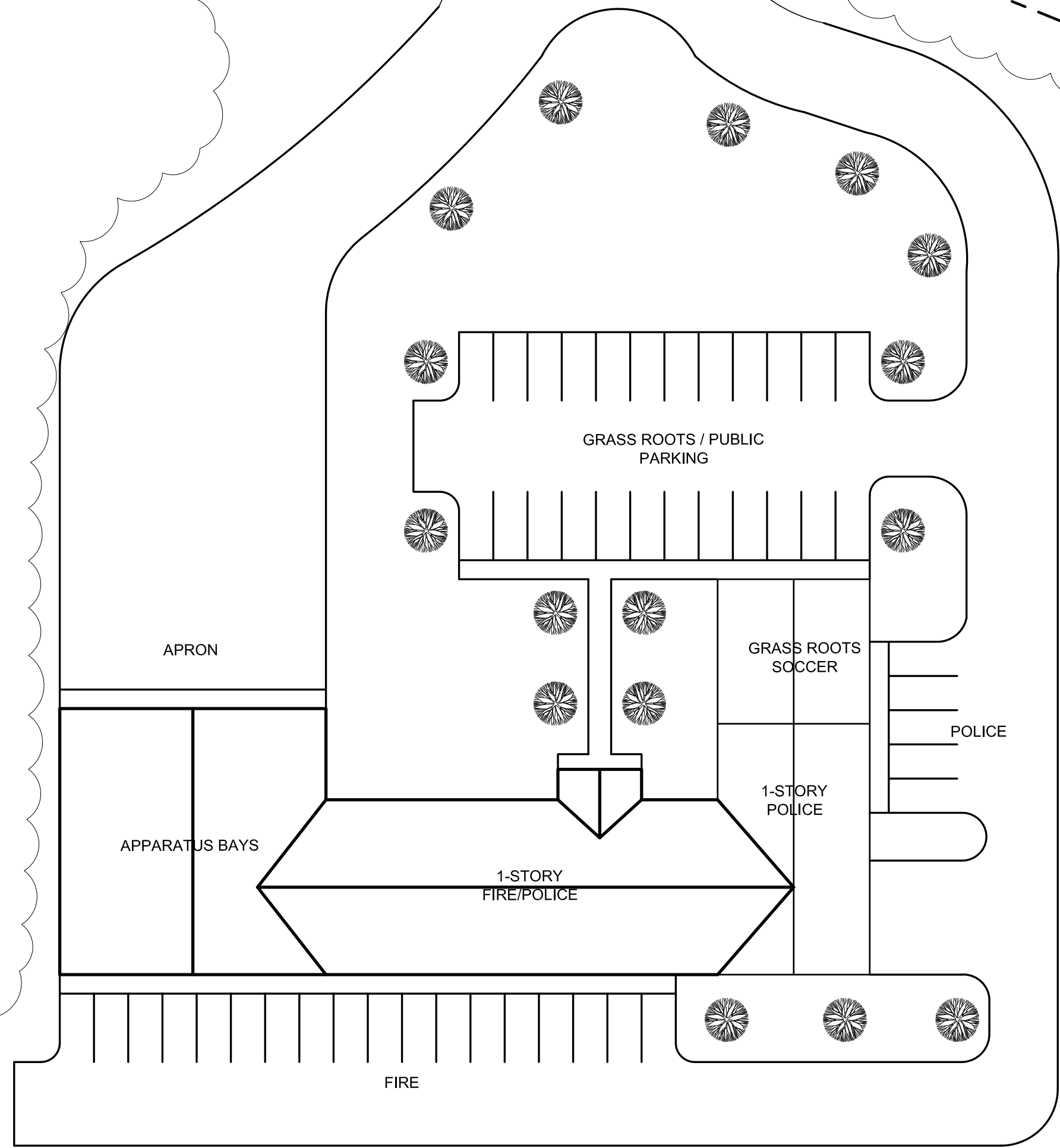
FIRE & POLICE - ABC DAIRY SITE LAYOUT #1
TOWN OF NORWICH, VT



INTERSTATE 91

INTERSTATE 91

ROUTE 5



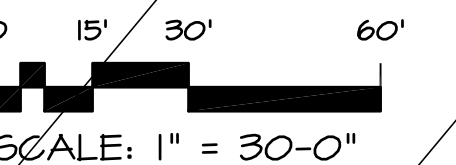
OPTION #2:
7,427 SF NET - FIRE
2,552 SF NET - POLICE

FIRE & POLICE - ABC DAIRY SITE LAYOUT #2

TOWN OF NORWICH, VT



NORTH



SCALE: 1" = 30'-0"

BreadLoaf
Architects
Planners
Builders

11.01.2013

Norwich Vermont: Comparison of Layout Options for Public Works - Existing Site						
Layout Option Evaluation	Layout #2 New 1-story structure for heated storage, maintenance bay and office space. Shed roof addition to existing building for cold storage		Layout #3 Convert existing building to cold storage. Re-use existing fire station structure for heated storage. New structure for maintenance and offices.		Layout #4 Build (2) separate structures for cold storage, and heated storage, maintenance and office space.	
	PROS	CONS	PROS	CONS	PROS	CONS
1. Site Layout	Majority of existing drive remains as is		Majority of existing drive remains as is		Majority of existing drive remains as is	Pinch point where north end of cold storage meets drive
	Existing parking area south of existing building remains		Existing parking area south of existing building remains		Existing parking area south of existing building remains	
					Additional parking for office use and public	
2. Program Layout	Tight and efficient footprint for heated program space	Separate buildings for equipment	Tight and efficient footprint for heated program space	Height of maintenance bay as an addition to fire structure	Tight and efficient footprint for heated program space	Separate buildings for equipment
	Office component acts as "Front Door" to facility		Office component acts as "Front Door" to facility	Cold storage space requirements not met	Office component acts as "Front Door" to facility	
	Re-use of existing building with addition for cold storage space		Re-use of existing building with addition for cold storage space		Re-use of existing building with addition for cold storage space	
3. Layout Option Cost Factors	Re-use of existing building	Costs of repair to existing building	Re-use of existing building	Cost of moving and re-installing fire station structure		No efficiency gained by building one structure
	No changes to existing drives		No changes to existing drives	Still paying for new roof and potentially new exterior panels		Demolition and trucking costs of existing building
	Relatively flat area where new building is located		Relatively flat area where new building is located	Costs for off-site storage of cold storage equipment		
			Re-use of fire station structure for heated storage			



OPTION #1:
6,557 SF NET - COLD STORAGE
4,340 SF NET - HEATED STORAGE
3,070 SF NET - OFFICE/SUPPORT SPACE



OPTION #2:
8,000 SF NET - COLD STORAGE
4,340 SF NET - HEATED STORAGE
3,070 SF NET - OFFICE/SUPPORT SPACE



OPTION #3:
4,000 SF NET - COLD STORAGE - EXISTING BUILDING CONVERTED TO COLD STORAGE
3,600 SF NET - HEATED STORAGE - REUSED FIRE STATION STRUCTURE AND OVERHEAD DOORS
3,070 SF NET - OFFICE/SUPPORT SPACE



OPTION #3:
8,000 SF NET - COLD STORAGE
4,340 SF NET - HEATED STORAGE
3,070 SF NET - OFFICE/SUPPORT SPACE