VILLAGE OF ESSEX JUNCTION TRUSTEE
TOWN OF ESSEX SELECTBOARD
SPECIAL MEETING AGENDA

81 Main Street
Essex Junction, VT 05452

Monday, September 9, 2019
7:45 PM (or immediately following Town Selectboard Meeting)

E-mail: manager@essex.org
www.essexjunction.org
www.essex.org
Phone: (802) 878-1341

The Selectboard and Trustees meet together to discuss and act on joint business. Each board votes separately on action items.

1. **CALL TO ORDER** [7:45 PM]
2. **AGENDA ADDITIONS/CHANGES**
3. **APPROVE AGENDA**
4. **PUBLIC TO BE HEARD**
   a. Comments from Public on Items Not on Agenda
5. **BUSINESS ITEMS**
   a. Presentation of Building Needs Study, Phase 1
   b. Introduction to taxation plan—Sarah Macy
   c. Update from Governance Subcommittee
6. **CONSENT ITEMS**
   a. Approve minutes: August 27, 2019 – Joint Meeting
7. **READING FILE**
   a. Board Member Comments
   b. Email from Dan Richardson re: Drafting Charter Language
   c. Memo from Sarah Macy re: Joint Board Budget Goals
8. **EXECUTIVE SESSION**
   a. An executive session is not anticipated
9. **ADJOURN**

Members of the public are encouraged to speak during the Public to Be Heard agenda item, during a Public Hearing, or, when recognized by the Chair or President, during consideration of a specific agenda item. The public will not be permitted to participate when a motion is being discussed except when specifically requested by the Chair or President. This agenda is available in alternative formats upon request. Meetings, like all programs and activities of the Village of Essex Junction and the Town of Essex, are accessible to people with disabilities. For information on accessibility or this agenda, call the Unified Manager's office at 878-1341.

Certification: 09/06/2019 _____

Memorandum

To: Board of Trustees; Selectboard; Evan Teich, Unified Manager

Cc: John Alden, Scott + Partners; Dennis Lutz, Public Works Director; Rick Jones, Public Work Superintendent; Ally Vile, Essex Parks & Recreation Director; Brad Luck, Essex Junction Recreation & Parks Director; Charles Cole, Essex Fire Chief; Chris Gaboriault, Essex Junction Fire Chief

From: Greg Duggan, Deputy Manager GSD

Re: Presentation of Building Needs Analysis, Phase 1

Date: September 6, 2019

Issue

The issue is for the Trustees and Selectboard to review Phase 1 of the Building Needs Analysis.

Discussion

Scott + Partners has been working on a Building Needs Analysis to analyze site and building conditions of the Town and Village fire, parks and recreation, and public works facilities. The Building Needs Analysis also includes a space needs matrix outlining the needs of the departments for the next 30 years.

The first of four phases of the Building Needs Analysis is nearing completion. At the end of Phase 1 of the study, Scott + Partners was to meet with the Trustees and Selectboard to review the findings to date.

The Phase 1 draft report is attached.

In Phases 2 and 3, the Building Needs Analysis will show conceptual plan options for proposed buildings and sites. Phase 2 will look at individual departments. Phase 3 will consider consolidated departments.

Phase 4 will include a final report and cost estimates.

Cost

N/a

Recommendation

This memo is for informational and discussion purposes.

*** D R A F T ***

PHASE 1 REPORT

Municipal Facilities
Space Needs Analysis

Essex Town – Village of Essex Junction
Vermont

Issued: August 20th, 2019

Scott + Partners, Inc
Architects

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ARCHITECTURE

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PHASE 1 REPORT

Municipal Facilities Space Needs Analysis

Prepared for the Town of Essex / Village of Essex Junction

Dated: August 20, 2019

*** DRAFT ***

Design Team: Scott + Partners, Inc., DuBois & King, Inc., Austin Hill Estimating.

INTRODUCTION and OVERVIEW OF THE STUDY PROCESS:

In response to a joint Town and Village RFP, we are pleased to submit the following Phase 1 Report outlining space and facility needs for selected municipal departments. Those departments are:

- Public Works
- Fire Department
- Parks and Recreation

This report summarizes findings from Phase 1 of a four-phase study. The overall goal of the study is limited to identifying how much building space or site acreage should be planned for to accommodate the delivery of services for the departments listed above. To clarify the phases of study:

1. Phase 1 is intended to survey specific Town and Village departments and create a table of necessary space to satisfy functional requirements. Where more space is needed, we will identify how much and of what type, and we will project probable costs for construction. The process first tracks the Village and Town *separately*, and then goes on to evaluate potential *combined* operations.
2. Phase 2 will use the Phase 1 space requirements and develop drawings and site plans showing conceptual solutions to providing for the functional space needs set forth in the *separate facilities* portion of Phase 1. It will test the square footage assigned in Phase 1 and confirm the general building layout and site size requirements.
3. Phase 3 considers responses to the functional space needs in a *combined* scenario where certain sharing or co-locating of services is possible.
4. Phase 4 includes finalizing materials after public input and comment, public presentations and staff review.

The Phase 1 work includes a review of existing conditions and will result in a *Space Needs Matrix* for each of the departments. We have looked at current and projected functions, staff and equipment to assess the adequacy of existing facilities for the present and well into the future. The RFP calls for looking ahead 50 years. It may be difficult to forecast that far ahead, but using current practices and service delivery models, we will set realistic and defensible projections. The goal is to reach a justifiable understanding of municipal building needs, sizes and costs so that we may intelligently plan our way forward. Actual construction or site acquisition is not intended at this time.

The analysis evaluates the existing operations and physical space against a number of important metrics.

- Evaluation of existing conditions against current building codes and best practices.
- Evaluation of future space needs growth in each department to ensure that it can effectively serve the community at expected levels of service.
- Evaluation of required building components, size and land needed to support the proposed functions. A subset of this items will be to determine the adequacy of the existing department locations and potential alternative locations should additional space be required. Phase 1 will cover establishing the need only. Later phases will address potential locations, should they be necessary, and costs.

To complete these tasks, the study team has

- Collected available building plans, site information, field information and drawings
- Issued and collected a detailed survey from department heads concerning staffing, functions, equipment, current square footage and future growth
- Conducted on-site field work to assess existing buildings
- Debriefed department heads to confirm findings, survey results and visions for future planning

REVIEW OF APPLICABLE CODES:

PRELIMINARY CODE REVIEW:

Building Fire and Life Safety Codes and AHJs applicable to this project are:

- Vermont Fire and Building Safety Code, 2015 *
- Vermont Electrical Safety Rules, 2017
- Vermont Plumbing Rules, 2015
- Vermont Elevator Safety Rules, 2014
- Vermont Access Rules, 2012
- VT Commercial Building Energy Standards (CBES) 2015 current edition**
- AHJ (State Fire Marshal) - Williston Office, Hurricane Lane
- Local Fire Chiefs
- NFPA 1710 – Standards for… Career Fire Department (full-time, paid), 2016
- NFPA 1720 – Standards for… Volunteer Fire Departments, 2014

Including Reference Codes as adopted by Vermont

- NFPA 1, 2015
- NFPA 101, 2015
- International Building Code (IBC), 2015
- International Existing Building Code (IEBC), 2015
- International Plumbing Code, 2015
- National Board Inspection Code (Boilers and Pressure Vessels), 2015
- National Electric Code / NFPA 70, 2017

*We note that the State is poised to adopt the 2018 version of the IBC and NFPA. **The State is also likely to adopt the 2019 version of the Energy Code (CBES).

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PHASE 1 FINDINGS - SUMMARY:

The combined communities of Essex and Essex Junction are currently served by a scattered collection of municipal structures. Main administrative functions are well addressed by the recently renovated facilities at 81 Main Street and 2 Lincoln Hall, respectively. The Police Department serving the joint community is also housed in a state-of-the-art new building on Maple Street. However, the remaining municipal departments - Public Works, Parks & Recreation, and the Fire Department in both communities are operating in sub-standard facilities. The buildings and related sites are cramped, inefficient to operate, and require significant ongoing maintenance and "work-arounds" to deliver the high-quality services and programs expected by the community. In addition, evolving building codes are making code compliance in the workplace difficult or impossible to meet.

- The fire departments are the furthest out of code compliance (Existing volunteer stations are governed by NFPA Chapter 1720). Both stations fail to meet minimum standards for sprinkler coverage (required for all new fire stations in VT), gear handling and storage, and the Town station is lacking an exhaust capture system necessary to keep truck fumes from spreading throughout the station.
- The Town Public Works garage required remedial steel repairs this past year due to years of salt corrosion attacking it steel frame. Poor separation exists between the truck bays and the offices. Air quality is compromised for Town employees. Emergency/disaster response space is inadequate for multi-day events, storms or natural disasters.
- Lacking a single point of operations, the Town Parks & Recreation department operates the bulk of their activities from multiple satellite facilities. This requires equipment and supplies to be constantly moved from a storage location to the distribution or use location. Excessive staff time is spent loading, unloading, moving, etc.
- The Town pool and home of the Town of Essex Swim Team (TEST) no longer meets safety requirements for competitive meets due to the depth of the water in the swimming lane area where dive starts occur. Other venues for the swim meets are being coordinated. The Village pool is one option, subject to programming and event coordination.
- Village Public Works has limited indoor storage for expensive equipment and necessary spare parts for sewer, water and roadway work. Buildings are old and generally of wood construction with sub-standard energy performance and amenities.

SPACE USE FINDINGS:

The study team has reviewed existing conditions and surveyed the departments for current and future space needs based on functional requirements, current codes, and best practices. This report includes a detailed space needs matrix outlining necessary square footage for each department. It confirms existing space use and forecasts functional space needs well into the future.

The table below shows the gap between current square footage and actual required square footage for code compliant, function driven program space. We have not listed site space required for the Parks; this study focus is generally on the staff/equipment driven building square footage and related outdoor support space necessary.

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Essex Town - Essex Junction Space Needs Summary					
	Building Square Footage		Site Square Footage		
DEPARTMENT	CURRENT SF	REQUIRED SF	CURRENT SF	REQUIRED SF	NOTES
Village Public Works	11,894	22,463	0	3 acres	Current SF is linked to the Elm St. site. Required could be anywhere.
Town Public Works	16,581	29,765	0	4.5 acres	Current SF is linked to the Sand Hill Rd. site. Required could be anywhere.
Village Parks & Rec	15,090	16,981			
Town Parks & Rec	9,138	16,800			
Village Fire Dept	5,794	11,400	0	2 acres	Same number of bays. Separate gear storage, more support space
Town Fire Dept	8,345	17,113	0	3 acres	Increased number of bays from 3 to 5. Separate gear storage, more support space.
TOTAL	66,841	114,521			See Detailed Program/Space Charts

KEY STUDY FINDINGS:

1. With the exception of Village Parks & Rec, the study findings show that **existing Building and Site square footage is about half of what the functional program needs require**.
2. Some buildings are in good condition despite not having enough space. Other buildings are limping along and at the end of or beyond their anticipated useful life.
3. Safety and code related issues will be difficult to retrofit into certain existing buildings.
4. Coupled with deficiencies in both building and site size, new locations supporting new facilities may be the most economical for the long-term future.
5. Shared or combined facilities may become increasingly advantageous with obvious benefits including reduction of total new space required, improved location, improved service delivery, and cost savings.

See full Spaces Needs Matrices in the Appendix.

PROBABLE COSTS:

1. Projected costs are evaluated in a straightforward calculation for Phase 1. We anticipate additional breakdowns as the study moves forward. The costs are based on the required square footage from the functional matrices and standard costs per square foot. In a simple analysis, square footage shortfalls may be made up on any given site by constructing the net difference between existing and required. However, this may not be possible or desirable based on site limitations or condition of existing buildings. For the Phase 1 study, we will set aside some of the variables and look at Net New and All New. This will give us a range that can be further evaluated for each site and specific program. Key notes:
    a. Projected costs are shown for constructing the NET NEW square footage required by the study.
    b. Projected costs are shown for constructing the required square footage as ALL NEW.
    c. All costs below are shown for the separate Town – Village facilities option. Combined options will be evaluated in the next study phase.

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OPINION of PROBABLE NEW CONSTRUCTION COSTS							
Based on New Construction of square footage requirements - see detailed Space Matrix sheets							
DEPARTMENT	Existing SF	Required SF	Net New SF	NEW Per SF cost	NET NEW ONLY: Building Total	IF ALL NEW: Building Total	NOTES
Village Public Works	11,894	22,463	10,569	$ 160.00	$ 1,691,000	$ 3,594,000	Current SF is linked to the Elm St. site.
Town Public Works	16,581	29,765	13,184	$ 160.00	$ 2,109,400	$ 4,762,400	Current SF is linked to the Sand Hill Rd. site.
Village Parks & Rec - Admin.	15,090	16,981	1,891	$ 200.00	$ 378,250	n/a	Exist.Maple Street Admin facility is in good condition.
New Gym with upper level track	n/a	21,500	21,500	$ 140.00	$ 3,010,000	$ 3,010,000	Ideally, this facility is connected to the existing admin bldg.
Enclose existing pools	n/a	28,000	28,000	$ 140.00	$ 3,920,000	$ 3,920,000	Vision calls for significant glass; add for retractable roof.
Town Parks & Rec - Admin.	9,138	16,800	7,663	$ 200.00	$ 1,532,500	$ 3,360,000	Locate at Sand Hill Road Park
Rebuild Sand Hill Pool	3,200	3,200	0	$ 110.00	$ 352,000	$ 352,000	Required for swim meets
Village Fire Dept	5,794	11,400	5,606	$ 200.00	$ 1,121,250	$ 2,280,000	3 bays. Separate gear storage, more support space
Town Fire Dept	8,345	17,113	8,768	$ 200.00	$ 1,753,500	$ 3,422,500	5 bays. Separate gear storage, more support space
TOTAL	70,041	167,221	97,180		$ 15,867,900	$ 24,700,900	Does not designate a new location or include any potential land purchase costs.

Further evaluation of the cost range suggests that:

- It is unlikely that the actual solution will be to build “all new” facilities. The true cost to the municipality will fall somewhere within the range.
- The various departments will likely have different solutions. For example, we may determine that two fire stations are more desirable than just one, while combining the Town and Village Parks & Rec operations into one location is the best option.
- The desired solutions may be implemented over a period of years or decades. Some immediate improvements may be necessary, but these should be done with the overall planning strategies in mind.
- All project decisions will be impacted by ongoing community discussions related to shared community services.

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APPENDIX : Space Use Matrix & Existing Conditions Evaluations

FUNCTIONAL SPACE USE MATRIX:

The development of a detailed list of required program space for each department is the heart of this study phase. The resulting square foot totals will establish the necessary size of a facility to provide for the functional needs of each department. As noted in the introduction, this phase of the analysis will evaluate each department's request separately- as if they will have their own space/building. We will evaluate the potential for combining departments in a single facility in later phases.

After in-depth review of survey information and discussions with staff and department heads, a detailed functional program was developed for each department including required square footages, adjacencies and other requirements. There is one matrix for each department separately (6) plus one showing a potential combined scenario which co-locates like departments (3). The nine (9) space use matrices are attached at the back of the report in the Appendix. Below is an example of one matrix showing the categories and square footages. We have broken out the requirements for public access areas, staff areas (seen below) as well as support space and required outdoor area (especially important for the Public Works programs).

ESSEX JUNCTION PARKS & REC — SPACE NEEDS MATRIX

Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing (sf)*	Remarks
PUBLIC (Admin Building)						
vestibule	1		50	50	*55*	
lobby / reception	1		300	300	*625*	
display	1		40	40	*10*	
toilets	2	multi-purpose, admin	120	240	*270*	
teaching kitchen	1	public meeting room	120	120	*105*	
group/public meeting room	1	teaching kitchen, toilets	2,000	2,000	*2,000*	existing: divides into two 1,000 sf rooms
Total - Public Space				**2,750**	*3,065*	
STAFF & Support Spaces (Admin Building) projected 12 full time / 2 part time; existing 7 full time / 1 part time						
office - reception	1	lobby	150	150	*w/ lobby*	2 people
offices - rec director	1		195	195	*195*	
offices - program supervisor	1		150	150	*150*	
offices - open workstations	10		50	500	*0*	
kitchen / break	1		200	200	*200*	
toilets	2		60	120	*50*	
copy / storage	1		150	150	*150*	
conference	1		500	500	*500*	

The matrices are tabulated below to show total existing square footage and total proposed new square footage. As presented in the summary above, many of the current departments are working out of extremely dated facilities with inadequate staff or support space for their functional needs.

The following pages contain a Space Needs Matrix for each department x 3.

Each department is presented with 3 spreadsheets:

1. Village alone.
2. Town alone.
3. Village and Town Combined.

Space Matrix

Facilities Programming

ESSEX JUNCTION FIRE STATION Pearl Street Location SPACE NEEDS MATRIX

Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing*	Remarks
PUBLIC						
Entry vestibule	1		50	50	*0*	
Lobby	1		100	100	*0*	
Waiting, seating	1		40	40	*0*	
Display	1		40	40	*0*	
Bathroom	1		60	60	*0*	
Group / public meeting room	0		0	0	*0*	use training room
Total - Public Space				**290**	*0*	
STAFF existing 30-35 volunteers (Volunteer paid call, NFPA 1720)						
Dispatch / reception	1	Window to bays, front apron	100	100	*75*	
Open office	1	dispatch	200	200	*170*	
Offices	3	access from hall or open off.	100	300	*95*	Chief, deputy, training coordinator
Work room/ radio storage/charging	1	off open office	150	150	*270*	
IT/Data room	1	central	60	60	*0*	
Day room with kitchenette and eating area	1	near office and bathrooms	300	300	*285*	200sf if overnight/full-time staff is envisioned
Training room	1	kitchenette	800	800	*775*	Use meeting space in public area?
Locker rooms, including toilets, showers	2	sleeping	150	300	*70*	
Quiet room / sleeping*	1	day room, showers, kitchenette	120	120	*0*	10x12 sleeps 6. ****MAY TRIGGER NFPA 1710 (Career)**
Total - Staff space				**2,330**	*1,740*	
APPARATUS AND SUPPORT SPACE						
Truck bays: 20x70 (trucks stacked 2 deep)	3	access one end only, apron	1,400	4200	*2700*	OH doors - front Only with full apron
Turn-out gear storage / locker room	1	showers, day room	600	600	*in truck bays*	need separate room
Hose racks	4		160	640	*hanging*	need separate room
SCBA storage	1		60	60	*60*	separate room
Equipment storage / spare gear	1		200	200	*in truck bays*	need separate room
Haz-Mat / DeCon shower	1	truck bays, washer/dryers	100	100	*0*	special floor drain
Washer / Dryer (for gear)	1	decon, locker room	100	100	*0*	near DeCon shower; multiple gear washers
Mechanical/Boiler Room	1		150	150	*125*	
Janitors Closet	1		80	80	*10*	
Sprinkler room / pump room	1		150	150	*0*	
Maintenance	1		120	120	*w/ work rm*	
Electrical Room	1		100	100	*0*	
Total - Apparatus and Support Space				**6,500**	*2,895*	
Sub-Total of all Net program space				**9,120**	*4,635*	
Add for circulation, walls-construction, net-gross			25.00%	2,280	*1,159*	
Total - Building Gross Square Footage				**11,400**	*5,794*	
SITE NEEDS						
Parking Spaces - Dept, visitors, overflow	40	not all paved?	162	6,480	*2,916*	9x18 space, typ
Apron- full width in front	1	Concrete aprons	3,300	3,300	*front only*	50' x full bay width
Emergency vehicle parking/loading	2		480	960	*0*	12x40, typ
Outdoor training, activity space (grass)	n/a		n/a	0	*0*	apron space to road entry is sufficient
Sub-Total - Site Function Space				**10,740**		
Add for ingress, egress, parking circulation, turning, road access						
Total - Site Acreage required				**2 acres**		Based on combined building and site needs and our experience.

2014 NFPA 1720 (volunteer) - existing

Table 4.3.2 Staffing Response Time
Urban - 15 staff min - 9 minute max response time
Suburban - 10 staff min - 10 minute max response time
Rural - 6 staff min - 14 minute max response time
Remote - 4 staff min - response time directly related to travel distance

2016 NFPA 1710 (career) - **future

Section 4.1.2.1 Time
80 seconds turnout time (60 seconds for EMS)
240 seconds (4 minutes) max travel time - first arriving engine/first responder
480 seconds (8 minutes) max travel time - full alarm assignment/advanced life support
610 seconds (±10 minutes) max travel time - full alarm assignment for high-rise

Section 5.2.4 Deployment (depends on Occupancy type)
Single Family Dwelling - 14 staff min
Open-Air Strip Mall - 27 staff min
Garden-Style Apartment - 27 staff min

Space Matrix
Facilities Programming

ESSEX TOWN FIRE STATION Sand Hill Rd. Location SPACE NEEDS MATRIX

	Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing*	Remarks
PUBLIC							
	Entry vestibule	1		50	50	*0*	
	Lobby	1		100	100	*0*	
	Waiting, seating	1		40	40	*0*	
	Display	1		40	40	*0*	
	Bathroom	1		60	60	*70*	
	Group / public meeting room	1		600	600	*1,200*	separate from training room - security
			Total - Public Space		**890**	*1,270*	
STAFF existing 47 part time (Volunteer paid call, NFPA 1720)							
	Dispatch / reception	1	toilet, kitchen	100	100	*128*	needs to maintain sight lines to bays, access from hall
	Open office	1	dispatch	200	200	*200*	needs to accommodate 7 line officers
	Offices	3	access from hall or open off.	100	300	*150*	Chief, deputy, training coordinator
	Work room/ radio storage/charging	1	off open office	150	150	*0*	
	IT/Data room	1	central	60	60	*30*	
	Day room with kitchenette and eating area	1	office, bathrooms, sleeping	500	500	*515*	200sf if overnight/full-time staff is envisioned
	Training room	1	truck bays	1,200	1,200	*public mtng*	separate from multi-use public conference room
	Fitness	1	showers	250	250	*0*	
	Locker rooms, including toilets, showers	2	sleeping	150	300	*70*	
	sleeping / quiet room *	4	showers, day room	120	480	*0*	10x12 sleeps 6 ****MAY TRIGGER NFPA 1710 (Career)**
			Total - Staff space		**3,540**	*1,093*	
APPARATUS AND SUPPORT SPACE							
	Truck bays: 20x70, stacked 2 deep	5	access both ends, front apron only	1,400	7000	*4275*	OH doors front and back, Exhaust capture system
	Turn-out gear storage / locker room	1	showers, day room	600	600	*btwn trucks*	need separate room
	Hose racks	4		160	640	*btwn trucks*	need separate room
	SCBA storage	1		60	60	*btwn trucks*	need separate room
	Equipment storage / spare gear	1		200	200	*btwn trucks*	need separate room
	Haz-Mat / DeCon shower	1	truck bays, washer/dryers	100	100	*0*	special floor drain
	Washer / Dryer (for gear)	1	decon, lockers	60	60	*12*	
	Mechanical/Boiler Room	1		150	150	*20*	
	Janitors Closet	1		80	80	*6*	
	Sprinkler room / pump room	1		150	150	*0*	
	Maintenance / work bench	1		120	120	*0*	
	Electrical Room	1		100	100	*0*	
			Total - Apparatus and Support Space		**9,260**	*4,313*	
			Sub-Total of all Net program space		**13,690**	*6,676*	
			Add for circulation, walls-construction, net-gross	25.00%	3,423	*1,669*	
			Total - Building Gross Square Footage		**17,113**	*8,345*	
SITE NEEDS							
	Parking Spaces - Dept, visitors, overflow	40	not all paved?	162	6,480	*4,050*	9x18 space, typ
	Apron- full width in front only	1	Concrete aprons	5,300	5,300		50' x full bay width
	Emergency vehicle parking/loading	2		480	960		12x40, typ
	Outdoor training, activity space (grass)	1		10,000	10,000		
			Sub-Total - Site Space		**22,740**		
			Add for ingress, egress, parking circulation, turning, road access				
			Total - Site Acreage Required		**3 acres**		Based on combined building and site needs and our experience.

* 5 bays - single station or 4 bays at main station + 2 at satellite station. Satellite

2014 NFPA 1720 (volunteer) - existing

Table 4.3.2 Staffing Response Time
Urban - 15 staff min - 9 minute max response time
Suburban - 10 staff min - 10 minute max response time
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2016 NFPA 1710 (career) - **future

Section 4.1.2.1 Time
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610 seconds (±10 minutes) max travel time - full alarm assignment for high-rise

Section 5.2.4 Deployment (depends on Occupancy type)
Single Family Dwelling - 14 staff min
Open-Air Strip Mall - 27 staff min
Garden-Style Apartment - 27 staff min

Space Matrix
Facilities Programming

FIRE STATION — Combined Single Location — SPACE NEEDS MATRIX

	Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	Remarks
PUBLIC						
	Entry vestibule	1		50	50	
	Lobby	1		150	150	
	Waiting, seating	1		50	50	
	Display	2		80	160	
	Bathroom	2		60	120	
	Group / public meeting room	1		600	600	separate from training room - security
	Total - Public Space				**1,130**	
STAFF existing 82 part time (Volunteer paid call, NFPA 1720)						
	Dispatch / reception	1	Window to bays, front apron	150	150	
	Open office	2	dispatch	300	600	
	Offices	6	access from hall or open off.	100	600	Chief, deputy, training coordinator (2 of each?)
	Work room/ radio storage/charging	1	off open office	300	300	
	IT/Data room	1	central	100	100	
	Day room with kitchenette and eating area	1	near office and bathrooms	600	600	
	Training room	1	kitchenette	1,400	1,400	maybe operable divider
	Fitness room	1	showers	300	300	
	Locker rooms, including toilets, showers	2	sleeping	250	500	
	Quiet room / sleeping*	5	day room, showers, kitchenette	120	600	10x12 sleeps 6 ****MAY TRIGGER NFPA 1710 (Career)**
	Total - Staff space				**5,150**	
APPARATUS AND SUPPORT SPACE						
	Truck bays: 20x70 (trucks stacked 2 deep)	8	access both ends, front apron only	1,400	11200	OH doors - front & back, exhaust capture system
	Turn-out gear storage / locker room	2	showers, day room	600	1200	separate room from bays
	Hose racks	8		160	1280	separate room from bays
	SCBA storage	2		60	120	separate room from bays
	Equipment storage / spare gear	2		200	400	separate room from bays
	Haz-Mat / DeCon shower	1	truck bays, washer/dryers	200	200	special floor drain
	Washer / Dryer (for gear)	1	decon, locker room	300	300	near DeCon shower; multiple gear washers
	Mechanical/Boiler Room	1		300	300	
	Janitors Closet	2		80	160	
	Sprinkler room / pump room	1		200	200	
	Maintenance	1		250	250	
	Electrical Room	1		150	150	
	Total - Apparatus and Support Space				**15,760**	
	Sub-Total of all Net program space				**22,040**	
	Add for circulation, walls-construction, net-gross			25.00%	5,510	
	Total - Building Gross Square Footage				**27,550**	
SITE NEEDS						
	Parking Spaces - Dept, visitors, overflow	90	not all paved?	162	14,580	9x18 space, typ. 1 space per 300 sf of building
	Apron- full width in front	1	Concrete apron	8,300	8,300	50' x full bay width
	Emergency vehicle parking/loading	4		480	1,920	12x40, typ
	Outdoor training, activity space (grass)	1		10,000	10,000	use apron space?
	Sub-Total - Site Function Space				**34,800**	
	Add for ingress, egress, parking circulation, turning, road access					
	Total - Site Acreage required				**5 acres**	Based on combined building and site needs and our experience.

2014 NFPA 1720 (volunteer) - existing

Table 4.3.2 Staffing Response Time
Urban - 15 staff min - 9 minute max response time
Suburban - 10 staff min - 10 minute max response time
Rural - 6 staff min - 14 minute max response time
Remote - 4 staff min - response time directly related to travel distance

2016 NFPA 1710 (career) - **future? (not included in study)

Section 4.1.2.1 Time
80 seconds turnout time (60 seconds for EMS)
240 seconds (4 minutes) max travel time - first arriving engine/first responder
480 seconds (8 minutes) max travel time - full alarm assignment/advanced life support
610 seconds (±10 minutes) max travel time - full alarm assignment for high-rise

Section 5.2.4 Deployment (depends on Occupancy type)
Single Family Dwelling - 14 staff min
Open-Air Strip Mall - 27 staff min
Garden-Style Apartment - 27 staff min
High-Rise - 42 staff min

Space Matrix
Facilities Programming

ESSEX JUNCTION PARKS & REC 75 Maple St. + Scattered Sites SPACE NEEDS MATRIX

Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing (sf)*	Remarks
PUBLIC (Admin Building)						
vestibule	1		50	50	*55*	
lobby / reception	1		500	500	*625*	
display	1		40	40	*10*	
toilets	2	multi-purpose, admin	120	240	*270*	
teaching kitchen	1	public meeting room	200	200	*0*	existng has been converted to offices
small conf room- group sign up	1	lobby, toilets	500	500	*500*	
group/public meeting room	1	teaching kitchen, toilets	2,000	2,000	*2,000*	existing: divides into two 1,000 sf rooms
Total - Public Space				**3,530**	*3,460*	
STAFF & Support Spaces (Admin Building) projected 12 full time / 2 part time; existing 7 full time / 1 part time						
office - reception	1	lobby	150	150	*w/ lobby*	2 people
offices - rec director	1		195	195	*195*	
offices - program supervisor	1		150	150	*150*	
offices - open workstations	10		50	500	*105*	
kitchen / break	1		200	200	*200*	
toilets	2		60	120	*50*	
copy / storage	1		150	150	*150*	
conference	1		500	500	*use public*	doubles for work room, sign-ups
storage	1		500	500	*500*	
electrical room	1		100	100	*45*	
mechanical room	1		150	150	*895*	existing: 830 sf mezzanine + 65 sf room on main level
Janitor's closet	1		30	30	*12*	
Total - Staff space				**2,745**	*2,302*	
Program & Support Buildings						
maintenance garage	1		1,500	1500	*1500*	existing: 3 bays, maintenance office & toilet
bath house	1		1,850	1850	*1850*	existing: 2 single-user toilets, 2 single-user toilets w/ shower, 2 multi-user toilets, concessions & lifeguard
pump house	1		960	960	*960*	existing: pool storage & mechanical equipment
camp building	1		2,000	2000	*2000*	existing: assembly space, 2 multi-user changing/toilets, kitchen & general storage
bathrooms/changing rooms in park	2		500	1000	*0*	3 toilets, 3 changing stalls each side (gender)
NEW GYM - on locaition of exist. Tennis	1		21,500	discuss	*0*	2 1/2 basketball courts, elevated track
Cover over existing Pool area		retractable??	30,000	discuss	*0*	Glass enclosure on entire pool deck, seasonally open?
Total - Program and Support Buildings				**7,310**	*6,310*	
Sub-Total of all Net program space				**13,585**	*12,072*	
Add for circulation, walls-construction, net-gross			25.00%	3,396	*3,018*	
Total - Building Gross Square Footage				**16,981**	*15,090*	
SITE NEEDS * fields, courts, etc. counted over all village parks. Parking counted only at Maple St.						
Ball fields				0	*4*	
soccer fields				0	*2*	
basketball courts				0	*3*	
skate park				0	*1*	
pump track/bike park				0	*1*	
tennis courts				0	*2*	
pools				0	*2*	
playground				0	*2*	
parking	180		162	29,160	*23,328*	existing: 144 spaces
				0		
Total - Site Space				**29,160**	*23,328*	
Park locations include: Maple Street Park, Cascade, West Street Community Gardens and Dog Park, Meadow Terrace. Facilities exist at Maple St. only with port-o-lets at some others.						

Space Matrix

Facilities Programming

ESSEX TOWN PARKS & REC 81 Main St. + Scattered Sites SPACE NEEDS MATRIX

	Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing (81 Main)*	Remarks
PUBLIC (Admin Building)							
	vestibule	1		50	50	*120*	
	lobby / reception	1		200	200	*335*	
	display	1	integrate w/ lobby	40	40	*0*	
	toilets	2	lobby, meeting rooms	100	200	*250*	
	group/public meeting room	1	lobby	800	800	*0*	combine w/ conference?
	conference room - small	1	lobby	250	250	*0*	combine w/ conference?
	Total - Public Space				**1,540**	*705*	
	** Former police garage (at PW): 1,800 sf - 1 office, 1 bath, P&R grounds foreman + 2 staff*						
STAFF (Admin Building) projected __ full time / __ part time; existing __ full time / __ part time							
	open workstations / front counter	2		50	100	*375*	
	counter / open work area	1	lobby / work room	200	200	*95*	
	office - director	1		160	160	*95*	
	toilet	2		60	120	*120*	
	kitchen & break	1		200	200	*145*	
	meeting / conference	1		250	250	*90*	combine w/ conference and/or meeting?
	storage	1	admin	200	200	*35*	
	office - staff	2		120	240		
	work room / safe	1		120	120		
	wam program / equipment storage	1		1,000	1,000		
	cold program / equipment storage	1		1,500	1,500		
	Total - Staff space				**4,090**	*955*	
Program & Support Buildings							
	Sand Hill Park - pool house	1		3,000	3000	*3000*	
	Sand Hill Park - dry/secure storage	1		1,000	1000		existing pavilion
	Sand Hill Park - pavilion	1		1,200	1200	*1200*	repair, make weather tight/critter proof
	Foster Road Park - toilets + snack bar	1		950	950	*950*	
	Foster Road Park - storage sheds	1		500	500	*500*	
	Indian Brook - staff hut w/ toilet	1		160	160	*0*	
	Tree Farm - storage	1		1,000	1000		dry/secure/unheated
	DPW site - garage storage	1					
	Total - Program and Support Buildings				**7,810**	*5,650*	
	Sub-Total of all Net program space				**13,440**	*7,310*	
	Add for circulation, walls-construction, net-gross			25.00%	3,360	*1,828*	
	Total - Building Gross Square Footage				**16,800**	*9,138*	
SITE NEEDS							
	parking	15		162	2,430	*5,994*	confirm # spaces, currently share 37 spaces
	ball field					*7*	Foster Rd(5), Pearl St(1), Pinewood(1)
	tennis court					*6*	Sand Hill(2), Pearl St(2), Ethan Allen (2)
	basketball court					*3*	Saxon Hollow(.5), Pinewood(.5), Pearl St(1), Myers(1)
	playground					*7*	Saxon Hollow, Sand Hill, Pinewood, Myers, Foster Rd, Ethan Allen, Pearl St
	pool					*1*	Sand Hill - not deep enough for meets
	soccer / multi-use field					*3*	Ethan Allen, Myers, Prarie Fields (EMS)
	walking trails					*4*	Ethan Allen, Indian Brook, Pearl St, Sand Hill
	track					*1*	Foster Rd
	reservoir w/ boat launch					*1*	Indian Brook
	pickleball					*1*	may restripe one tennis
	disc golf					*1*	Pearl St
	on-site storage	9					
	Portalets						used seasonally at some locations where no on-site facilities
	Total - Site Space				**2,430**	*5,994*	
	Existing Parks include: Fort Ethan Allen, Foster Road Park, Indian Brook Park, Myers Park, Pearl St Park, Pinewood Park, Sand Hill Park, Saxon Hollow Park & Prairie Fields (behind EMS)						

Space Matrix
Facilities Programming

PARKS & RECREATION — Combined Single Location — SPACE NEEDS MATRIX

Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	Remarks
PUBLIC (Admin Building)					
vestibule	1		50	50	
lobby / reception	1		500	500	
display	1	integrate w/ lobby	80	80	
toilets	2	lobby, meeting rooms	120	240	
teaching kitchen / meeting room	1	public meeting room	500	500	
group/public meeting room	2	lobby	1,000	2,000	
conference room - small, group sign-up	1	lobby	500	500	
Total - Public Space				**3,870**	
STAFF (Admin Building) projected 12 full time / 2 part time					
office - reception / counter (2 people)	1	lobby	150	150	
copy / open work area	1		300	300	
offices - rec director	1		195	195	
offices - program supervisor	2		150	300	
offices - grounds foreman	1		120	120	
offices - open workstations	12		50	600	
kitchen & break	1		300	300	
toilets	3		60	180	
meeting / conference	1		500	500	combine w/ small conference and/or meeting?
work room / safe	1		120	120	
storage, office	1	admin	200	200	
warm program / equipment storage	1		2,000	2,000	central storage at admin
cold program / equipment storage	1		3,000	3,000	central storage at admin
electrical room	1		150	150	
mechanical room	1		200	200	
janitor's closet	2		30	60	
Total - Staff space				**8,375**	
Program & Support Buildings - Proposed New *- in addition to existing scattered facilities*					
Indian Brook - staff hut w/ toilet	1		160	160	
Maple St - toilets/changing within park	2		500	1000	
gymnasium	1		21,500	discuss	2.5 basketball courts, elevated track
Maple St - roof structure over pool	1		30,000	discuss	glass enclosure on entire pool deck, seasonally open?
Total - Program and Support Buildings				**1,160**	
Sub-Total of all Net program space				**13,405**	
Add for circulation, walls-construction, net-gross			25.00%	3,351	
Total - Building Gross Square Footage				**16,756**	
SITE NEEDS *parking counted only for administration building					
parking	58		162	9,396	1 parking space required per 300 sf of building
Total - Site Space				**9,396**	

Existing Parks include: Fort Ethan Allen, Foster Road Park, Indian Brook Park, Myers Park, Pearl St Park, Pinewood Park, Sand Hill Park, Saxon Hollow Park, Prairie Farm Sports Fields, Maple St Park, Cascade Park, Stevens Park, West St Community Gardens, Meadow Terrace Community Gardens, & Essex Dog Park.

Space Matrix

Facilities Programming

ESSEX JUNCTION PUBLIC WORKS Jackson St. Site SPACE NEEDS MATRIX						
	Space / Function	**Qty**	**Adjacency Requirements**	**Proposed (SF-each)**	**Total Prop. SF (Qty x SF)**	***Existing***	**Remarks**
PUBLIC							
	entry vestibule	1		50	50	*0*	
	lobby / reception	1		120	120	*0*	
	waiting, seating	1		40	40	*0*	
	bathroom	1		60	60	*0*	
	display	1	training room	40	40	*0*	group resource
	Group / public meeting room	1		0	0	*0*	combine with training room
			Total - Public Space		**310**	*0*	
STAFF projected: 10 full time / 2 part time; existing: 8 full time							
	kitchen / break room	1		300	300	*205*	for 12 people
	office - director	1		200	200	*135*	look over bays w/ glass
	offices - foreman, water dept, parts/maint	3	toilets, work stations	150	450	*165*	
	work stations	4	toilets, offices	80	320	*210*	
	toilet	2	sleeping, offices, work stations	60	120	*55*	can be combined w/ locker room
	locker room w/ showers	2	sleeping	150	300	*45*	can be combined w/ toilets, large lockers for winter gear
	training room	1		800	800	*0*	for 20 people
	sleeping room	2	locker room & toilets	120	240	*0*	for 9 people, (2) 10x12 rooms, 6 ppl ea
	file room / storage	1	offices, workstations	150	150	*120*	
	janitor's closet	1	toilets, lockers	80	80	*0*	
	washer/dryer	1	lockers	100	100	*0*	
			Total - Staff space		**3,060**	*935*	
APPARATUS AND SUPPORT SPACE							
	maintenance bays	2		512	1,024	*3,700*	heated, 1 bay for 3/4 ton truck, 1 bay for dump truck
	wash bay	1		512	512	*0*	
	vehicle storage bays	22		512	11,264	*	for 22 vehicles, 20 ft height
	welding / workshop	1	tools, parts, maint garage	250	250	*0*	exhaust ventilation
	storage - tools	1		150	150	*225*	secure storage
	storage - parts	1	maintenance garage, parts office	400	400	*120*	spare tires, oil filters, hydro hoses, extra parts, plow parts, generator parts
	storage - signs	1		200	200	*	
	storage - haz mat	1		200	200	*250*	exhaust/ventiliation
	storage - equipment	1		200	200	*	
	mechanical room	1		200	200	*85*	
	electrical room	1		200	200	*0*	
	emergency power / solar?	1			0		
			Total - Apparatus and Support Space		**14,600**	*8,580*	
	**Existing vehicle/equipment storage: 1,800sf garage; 2,400sf garage - TOTAL 4,200 sf*						
			Sub-Total of all Net program space		**17,970**	*9,515*	
	Add for circulation, walls-construction, net-gross			0.25	4,493	*2,379*	
			Total - Building Gross Square Footage		**22,463**	*11,894*	
SITE NEEDS							
	parking	15		200	3,000	*1,944*	larger spaces for pickups
	dumpsters - trash & recycling	2	assumed 6x6	36	72	*72*	
	dumpster - scrap metal	1		140	140	*0*	
	storage - covered	1		2,000	2,000	**	tires, plow blades, snow blowers, sand bags, grade stakes, flagging equip, barricades, traffic cones/lights, brooms, large water valves, fire hydrants, filter fabric
	storage - vehicles/equip (covered)	1		1,000	1,000	**	trailers, s/w trench box, manhole frames & grates, manhole risers, piping, sewer jetter, concrete sections, parade stage
	storage - sure pac / excavated soil (covered)	2		800	1,600	*0*	bays: sure-pac, waste soil/excavated material
	storage - mulch/topsoil (covered)	2		100	200	**	16 yard capacity for each
	storage - cold patch	1		120	120	**	
	storage - road maint/asphalt patch (covered)	1		150	150	**	3 walls for easy pick-up
	storage - sand (covered)	1		1,400	1,400	*0*	3 walls for easy pick-up - 400 ton
	storage - salt (covered)	3		1,400	4,200	*2,400*	35x40 bays: (2) pure salt, (1) treated salt - 400 ton per bay
	storage - stone (uncovered)	1		1,400	1,400	*800*	bay - verify size
	storage - gravel (uncovered)	1		1,400	1,400	*800*	xx cubic yards - verify
	storage - culverts (uncovered - concrete pad)	1		1,500	1,500	*1,000*	
	storage - 'ice be gone' (uncovered)	1			0		needs power - currently uses generator
	radio tower	1			0	*0*	
	fencing w/ locked gate	1			0		
	fueling station	1			0		1,000 gal capacity, above ground
			Sub-Total - Site Space		**18,182**	*9,416*	
	*** Existing cold storage: 2,400sf shared w/ vehicle storage?*						
	Add for circulation, drives, walks, gates, turning, maneuvering space						
	Total - Site acreage required				**3 acres**		Based on combined building and site needs and our experience.

Space Matrix

Facilities Programming

ESSEX TOWN PUBLIC WORKS Sand Hill Rd. Site SPACE NEEDS MATRIX						
Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	*Existing*	Remarks
PUBLIC						
entry vestibule	1		50	50	*0*	
lobby / reception	1	admin assistant	120	120	*0*	
waiting, seating	1		40	40	*0*	
bathroom	2		60	120	*0*	
display	1		40	40	*0*	
Total - Public Space				**370**	*0*	
STAFF projected: 24 full time / 45 part time; existing: 13 full time / 9 part time						
ALL - conference / meeting	1	admin spaces	300	300	*50*	for 8-10 ppl
PW - kitchen / break room	1	PW admin spaces	200	200	*55*	for 6-8 ppl
HWY / W&S - kitchen / break room	1	vestibule, garage	600	600	*270*	for 24 ppl
ALL - toilet - single user	2	admin spaces	60	120	*70*	
ALL - toilet w/ showers	2	sleeping	200	400	*0*	
ALL - sleeping	1	toilets w/ showers	250	250	*0*	for 6 ppl, double as intern space?
W&S - office - foreman	1		150	150	*100*	mtng space for 2 ppl, computer station, file cabs, bookshelves, flat files, radio r/t, equip lockers
HWY - office - superintendant	1	highway garage	200	200	*288*	mtng space for 4 ppl, computer station, flat plan workspace, file cabs, bookshelves, flat files, radio r/t, lockers, spare field tools/equip
HWY - open workstation - foreman	2		80	160	*217*	mtng space for 2 ppl, computer station, file cabs, bookshelves, flat files, radio r/t, equip lockers
HWY - office - mechanic	1	foreman & supt, first floor	200	200	*217*	mtng space for 2 ppl, computer station, file cabs, bookshelves, radio r/t, equip lockers, comp for fuel log
PW - office - director	1		300	300	*280*	mtng space for 6 ppl, file cabs, bookshelves, flat files, computer station, radio receiver/transmitter
PW - offices (2 engineers & stormwater coord)	3		180	540	*255*	mtng space for 2 ppl, flat plan workspace, computer station, file cabs, bookshelves, flat files, radio r/t
PW - intern workstations / flex space	1		200	200	*174*	10-12 weeks summer interns, combine w/ sleeping?
PW - office - admin assistant	2	file/copy	350	700	*64*	computer station, file cabs, bookshelves, flat files, radio r/t,
PW - copy room	1	admin assistant	100	100	*130*	
PW - file/plan storage	1	admin assistant	250	250	*w/ copy*	
PW - training space	1		1,200	1,200	*0*	for 30-40 ppl, a/v for presentations
ALL - work stations - support staff & training	20		50	1,000	*450*	HWY/W&S: 14 full time, 3-45 part time, 3 computer stations for training, private workstations for staff
vestibule	2	garage, break room(s)	50	100	*0*	between garage and break room(s)
storage	3		100	300	*110*	existing old files to be transferred
washer/dryer	1		100	100	*0*	
janitor's closet	1		80	80	*0*	
Total - Staff space				**7,450**	*2,730*	
APPARATUS AND SUPPORT SPACE						
HWY/W&S - garage bays	22	admin spaces, maint bays	512	11,264	*	9 large/med trucks, 11 smaller trucks, 2 spare
HWY/W&S - maintenance bays	3	garage bays (ovhd door btwn)	512	1,536	*	space for tools, tire changing, inspections, ovhd cranes, vehicle lifts
HWY/W&S - wash bay	1		512	512	*	
HWY/W&S - vehicle storage bays	4		200	800	*	2-4 small vechicles @ 15' height
welding / workshop	1	maint bays, parts room	250	250	*70*	work bench, include: compressor, table saw, drill, clamp, vises, etc.
storage - tools	1	maint bays	150	150	*324*	lockable - VERIFY SF
storage - parts	1	maint bays	400	400	*w/ tools*	parts. Emergency lights, chainsaws, generators, etc
storage - line striping equipment	1		160	160	*	line striping paint & equip
storage - meters/valves/generators/pumps	1		160	160	*	
storage - haz mat	1		160	160	*	paints, fuel cans, etc; ventilation
mechanical room	1		200	200	*	
electrical room	1		200	200	*	
storage	1		200	200	*0*	
emergency power / solar?				0	*	cover entire building - VERIFY SF NEEDS
Total - Apparatus and Support Space				**15,992**	*10,535*	
**Existing interior storage: 925sf (2-bay space); 720sf (2-bay space); 96sf shed; 8,400sf shop floor - TOTAL 10,141sf*						
Sub-Total of all Net program space				**23,812**	*13,265*	
Add for circulation, walls-construction, net-gross			25.00%	5,953	*3,316*	
Total - Building Gross Square Footage				**29,765**	*16,581*	
SITE NEEDS						
parking (9x18 spaces)	38		162	6,156	*3,078*	5 visitors, 1 per employee, 2 hc
dumpsters - recycling & trash	2	assumed 6x6	36	72	*56*	
dumpster - scrap metal	1		140	140	*140*	
storage - covered	1		2,000	2,000	**	tires, plow blades, signs, sand bags, grade stakes, flagging equip, barricades, traffic cones
storage - vehicles/equip (covered)	1		1,000	1,000	**	6 trailers (1,000sf), s/w trench box, manhole frames & grates, manhole risers, concrete sections (1,000sf)
storage - (covered)	2		560	1,120	*560*	14x40 bays: sure-pac, waste soil/excavated material
storage - cold patch	1		200	200	*120*	
storage - road maint/asphalt patch (covered)	1		150	150	*180*	3 walls for easy pick-up
storage - sand (covered)	1		9,000	9,000	*8,800*	3 partial height (min) conc walls, 4,500 cubic yards
storage - salt (covered)	5		1,400	7,000	**	35x40 bays: 4 for pure salt, 1 for treated salt
storage - spill containment (covered)	2		5,000	10,000	**	calcium chloride & sodium chloride
storage - stone (uncovered)	2		512	1,024	*560*	16x32
storage - gravel (uncovered)	1		3,000	3,000	*3,000*	1,000-1,500 cubic yards
storage - culverts (uncovered)	1		1,500	1,500	*1,250*	
package salt brine system (heated)	1			0	*0*	make salt brine on-site - VERIFY SF NEEDS
fueling station	2			0		1 pump for diesel, 1 pump for gas; key-lock system - VERIFY SF NEEDS
fencing w/ locked gate	1			0		
radio tower	1			0		
Total - Site Space				**42,362**	*22,613*	
*** Existing cold storage: Two shipping containers-160sf ea; small tent-325sf; large tent-1,200sf; cold storage building-3,024sf (4,869 total)*						
Add for circulation, drives, walks, gates, turning, maneuvering space						
Total - Site acreage required				**4.5 acres**		Based on combined building and site needs and our experience.

Space Matrix

Facilities Programming

DEPARTMENT OF PUBLIC WORKS	Combined Single Location	SPACE NEEDS MATRIX

Space / Function	Qty	Adjacency Requirements	Proposed (SF-each)	Total Prop. SF (Qty x SF)	Remarks
PUBLIC					
entry vestibule	1		50	50	
lobby / reception	1	admin assistant	120	120	
waiting, seating	1		40	40	
bathroom	2		60	120	
display	1	training room	40	40	
Total - Public Space				**370**	
STAFF projected: 34 full time / 47 part time					
ALL - conference / meeting	1	admin spaces	300	300	for 8-10 ppl
PW - kitchen / break room	1	PW admin spaces	300	300	for 8-10 ppl
HWY / W&S - kitchen / break room	1	vestibule, garage	800	800	
ALL - toilet - single user	3	admin spaces	60	180	
ALL - toilet w/ showers	3	sleeping	150	450	
ALL - sleeping	2	toilets w/ showers	250	500	for 6 ppl each, double as intern space?
W&S - office - foreman	2		150	300	mtng space for 2 ppl, computer station, file cabs, bookshelves, flat files, radio r/t, equip lockers
HWY - office - superintendant	2	highway garage	200	400	mtng space for 4 ppl, computer station, flat plan workspace, file cabs, bookshelves, flat files, radio r/t, lockers, spare field tools/equip
HWY - open workstation - foreman	3		80	240	mtng space for 2 ppl, computer station, file cabs, bookshelves, flat files, radio r/t, equip lockers
HWY - office - mechanic	2	foreman & supt, first floor	150	300	mtng space for 2 ppl, computer station, file cabs, bookshelves, radio r/t, equip lockers, comp for fuel log
PW - office - director	2		300	600	mtng space for 6 ppl, file cabs, bookshelves, flat files, computer station, radio receiver/transmitter
PW - offices (2 engineers & stormwater coord)	4		180	720	mtng space for 2 ppl, flat plan workspace, computer station, file cabs, bookshelves, flat files, radio r/t
PW - intern workstations / flex space	1		200	200	10-12 weeks summer interns, combine w/ sleeping?
PW - office - admin assistant	1	file/copy	180	180	computer station, file cabs, bookshelves, flat files, radio r/t,
PW - copy room	1	admin assistant	100	100	
PW - file/plan storage	1	admin assistant	100	100	
PW - training space	1		1,200	1,200	for 30-40 ppl, a/v for presentations
ALL - work stations - support staff & training	30		50	1,500	3 computer stations for training, private workstations for staff (full/part time)
vestibule	2	garage, break room(s)	50	100	between garage and break room(s)
storage	1		450	450	
janitor's closet	1		160	160	
washer/dryer	1	lockers	200	200	
Total - Staff space				**9,280**	
APPARATUS AND SUPPORT SPACE					
HWY/W&S - garage bays	44	admin spaces, maint bays	512	22,528	20 ft height
HWY/W&S - maintenance bays	4	garage bays (ovhd door btwn)	512	2,048	space for tools, tire changing, inspections, ovhd cranes, vehicle lifts
HWY/W&S - wash bay	1		512	512	
HWY/W&S - vehicle storage bays	4		200	800	15' height
welding / workshop	1	maint bays, parts room	300	300	work bench, include: compressor, table saw, drill, clamp, vises, etc.
storage - tools	1	maint bays	300	300	lockable - VERIFY SF
storage - parts	1	maint bays	800	800	parts. Emergency lights, chainsaws, generators, etc
storage - line striping equipment	1		300	300	
storage - meters/valves/generators/pumps	1		300	300	
storage - signs	1		400	400	
storage - haz mat	1		300	300	paints, fuel cans, etc; ventilation
storage	1		200	200	
mechanical room	1		200	200	
electrical room	1		200	200	
emergency power / solar?		roof		0	evaluate w/ utility
Total - Apparatus and Support Space				**29,188**	
Sub-Total of all Net program space				**38,838**	
Add for circulation, walls-construction, net-gross			25.00%	9,710	
Total - Building Gross Square Footage				**48,548**	
SITE NEEDS					
parking (10x20 spaces)	80		200	16,000	1 parking space per 600 sf of building
dumpsters - recycling & trash	4	assumed 6x6	36	144	
dumpster - scrap metal	2		150	300	
storage - covered	2		2,000	4,000	tires, plow blades, snow blowers, sand bags, grade stakes, flagging equip, barricades, traffic cones/lights, brooms, large water valves, fire hydrants, filter fabric
storage - vehicles/equip (covered)	2		1,000	2,000	trailers, s/w trench box, manhole frames & grates, manhole risers, concrete sections, piping, sewer jetter, parade stage
storage - (covered)	6		560	3,360	14x40 bays: sure-pac, waste soil/excavated material
storage - mulch / topsoil	2		100	200	16 yard capacity for each
storage - cold patch	1		250	250	
storage - road maint/asphalt patch (covered)	1		300	300	3 walls for easy pick-up
storage - sand (covered)	1		10,400	10,400	3 partial height (min) conc walls, 4,500 cubic yards
storage - salt (covered)	8		1,400	11,200	35x40 bays: 4 for pure salt, 1 for treated salt
storage - spill containment (covered)	2		7,850	15,700	2,500 gal capacity each: calcium chloride & sodium chloride - tank diameter ± 100" - VERIFY SF NEEDS
storage - stone (uncovered)	2		560	1,120	14x40
storage - gravel (uncovered)	1		3,000	3,000	1,000-1,500 cubic yards
storage - culverts (uncovered)	2		1,500	3,000	concrete pad
storage - 'ice be gone' (uncovered)	1		verify		needs power
package salt brine system (heated)	1		verify		make salt brine on-site - VERIFY SF NEEDS
fueling station	1		1,200	1,200	1 pump for diesel, 1 pump for gas; key-lock system - VERIFY SF NEEDS
radio tower	1		40	40	enclosed base
fencing w/ locked gate	1			0	
Total - Site Space				**72,214**	
Add for circulation, drives, walks, gates, turning, maneuvering space					
Total - Site acreage required				**8**	Based on combined building and site needs and our experience.

DRAFT

EXISTING CONDITION EVALUATIONS:

Members of the study team visited each site to conduct a general assessment of current conditions. The fire stations were evaluated in greater detail than the other building due to their significant community safety role and heavy use over the years. Consultant's reports on MEP and structural systems follow the general narratives.

Public Works – Town: Sand Hill Rd. / Foster Rd.

Town PW facilities occupy the corner of Sand Hill Rd. and Foster Rd. The site is shared with the Town Fire Station and some Parks & Recreation buildings. See site plan for listing. From a study done by this office in 2001, we noted, "the site is somewhat industrial in character with large, metal buildings, outdoor yard storage, sand and salt stockpiles, truck traffic and associated noise." Few of the expansions and improvements planned in that study have actually been implemented. As a result, the existing functional work area remains undersized and the physical condition remains sub-standard.

PW Buildings/Structures:

The current PW staff and garage components include office space for Public Works Administrative staff, Water/Sewer Staff and Highway staff housed across three buildings, two of which are on the Sand Hill site while one is ½ mile away across from the Town Library. Garage and vehicle maintenance bays share the large PW garage with office space for administrative functions. This structural steel frame and metal panel building is poorly insulated and is well short of complying with the current energy code. Significant deficiencies include sub-standard air quality in the office area resulting from poor ventilation and an insufficient separation between office space and the garage bays. In addition, the structural frame and metal panels have deteriorated over the years due to water and salt corrosion. Ongoing repair work has kept the building serviceable but has not addressed the underlying deficiencies.

A smaller, second building contains Water/Sewer staff and limited storage. This building is of block and steel construction and also is well under energy code requirements. It is cramped with limited options for expansion due to low eave heights and location within several key circulation routes on the site. Pubic Works staff (except for the director) have been housed remotely in a small wood framed "house" on the green across from the Town library for decades. This building was outgrown years ago. It is inefficient to have staff operating remotely from the main service area on Sand Hill.

Site: The existing site at 2.7 acres for PW is approximately half the 4.5 acres required shown to be necessary in the study. Sand and Salt storage is limited. Laydown area for large water/sewer components is limited. Covered but unheated storage is not available. A fueling island services the Town fleet.

Public Works – Village: Elm St.

Village Public Works is also located in a collection of structures built over the years as storage and maintenance garages. Most are of wood construction. Office and administrative space is housed in a portion of the maintenance garage. No fuel island currently exists.

Buildings include a relatively new salt shed, a large combined Highway garage and PW offices, a smaller garage building and an old, wooden storage shed.

Staff space is about 1/3 of the described functional need. The portion of the maintenance garage used for staff is awkward with some of the equipment and stock storage competing for office space. The building is not energy compliant.

Site: The yard area is poorly drained and contains limited acceptable storage area. Capacity for storage is also undersized. Covered, unheated storage is limited to the old wooden shed. Overall yard size is listed at almost 3 acres. However, some of that area has been parceled off for non-PW parking and other uses. Available site area appears to be about ½ the study request of 3 acres.

Parks & Recreation – Town: 81 Main/ *75 Maple St. (Admin), Foster Rd Garage (Grounds)

Administration: Town Parks and Recreation administrative staff have recently relocated from the renovated 81 Main Street to 75 Maple Street where they are sharing quarters with the Village Parks and Rec staff. While there will certainly be operational benefits from this co-location, it is expected to add to the space crunch already experienced by both programs.

In the previous location (81 Main), certain functional issues were noted. Many major functions of the department require convenient access to stored program materials and good public location identification. That means a highly visible and stable location with plenty of good quality storage. People need to know where they are going to sign-up, receive equipment, hold team meetings, turn in equipment and so on. This is constantly changing depending upon where the equipment is stored, what spaces are available for meetings, what season it is and how many participants are involved. Staff is constantly moving equipment, cleaning equipment, sorting and hauling equipment from unheated old barns to the destination venue. Staff time is inefficient. Participants don't always know where to meet. The relocation of office staff to Maple Street will not improve their proximity to remote program locations.

Ideally- for access to program spaces, the department would be located in a facility at one of the main program areas (Sand Hill Park or the Tree Farm) with adequate storage, staff and meeting space. This allows a concentration of activity in a location where staffing will spend the bulk of their time. The Village Parks and Rec office at Maple Street enjoys significant benefits from its siting in the dominant park (by usage and program numbers). However, with a small department, there may be a competing concern about isolation and office coverage. If the office is a stand-alone facility, and the staff is out at program sites, there may be no one available to keep the office open.

Despite relocating to Maple Street, the Town space shortage for staff and storage area continues to be significantly undersized. According to the study findings, the existing functional building square footage (9,138sf total at 81 Main and other satellite locations) needs to nearly *double* to meet the required square foot needs (16,800sf).

Program space (built): Significant existing construction consists primarily of the pool complex at Sand Hill Park. Other structures include old storage sheds present on Town owned parcels such as barns at the Tree Farm. These are adequate for some storage, but do not typically work well for clothing and other equipment that could be ruined by animals, mice and other shelter seeking critters. Provisions for improved storage quality and storage location seem to be indicated. Locating new storage with the office space is recommended.

Parks & Recreation – Village: 75 Maple St. (Maple St. Park)

The Village Parks and Rec department had a new administrative facility designed/constructed at Maple Street Park in 2000. The project also rebuilt the community pool and related bath house. Since that time, several additional open pavilions and enclosed program spaces and support structures have been built that create a strong, multi-functional municipal complex. In all, there is just over 15,000sf of enclosed space in use. In general,

the space remains in good condition. It is heavily used and does show signs of wear, but it is well maintained and should withstand many more years of use, especially if some activities and functions can be "off-loaded" to surrounding buildings or newly constructed facilities.

While the main building serves very well, the growth in programming, staff, and use is such that there are certain pinch points and additional needs. Most notable are storage, lockers/changing areas, bathrooms, and support space for the ever changing/expanding offerings. With the recent addition of the Town Rec staff, the need for additional office space and related storage/support space is even more critical. The Village space matrix shows a shortfall of approximately 2,000sf. Should these administrative functions remain co-located, we might now add the Town administrative/staff shortfall of about 4,000sf for a total administrative/office shortfall of 6,000sf.

Although we have not generally included new program space in the study (like ball fields or swimming pools), the village staff has presented a sweeping vision for long-term facilities that are relatively common in other communities. The benefit to the community is obvious, but it is likely to spark significant discussion.

- New indoor gymnasium with upper level track for parks and rec use. This would be available for parks and rec programming that currently competes head-to-head (and loses) with the school gymnasiums which naturally serve their populations/sports teams first during the critical school and after-school hours.
- Enclose the existing pool (retractable roof ideal). Indoor pool facilities are among the most heavily used and sought after community sports facilities in the country. Having a pool that is only available for three months/year is limiting and greatly reduces program access.

We present these long-term facility visions here to get the conversation started while recognizing that, because of their size and cost, they may skew the report findings. We have elected to list them but not carry the square footage in the Space Needs totals. We do carry them as line items in the Cost Summary.

Town Fire Station: Sand Hill Road

The Town fire station at Sand Hill Road was last expanded in 2001 with a bond vote of $375,000. The limited funds allowed a needed expansion of truck bays, offices and support space. Significant Fire Department labor and in-kind service donation contributed to the construction effort. 18 years later, the facility is showing signs of wear and tear, many as a result of lower quality materials used to meet the budget. In addition, regulations governing fire station construction and operation have increase dramatically. Required response time and fire-fighter safety driven concerns regarding contaminates, pollutants and hazardous materials often encountered on the job have deeply impacted design and construction of modern fire stations. Bay size is again strained by the increased size and number of fire apparatus.

The current station is increasingly out of compliance with basic systems. Major air quality and safety issues include lack of exhaust capture systems in the apparatus bays, lack of gear decontamination stations, lack of separation between ready-gear storage areas and the apparatus bays, lack of separation for filling/storing specialized breathing apparatus, poor ventilation systems, lack of a sprinkler system, and other deficiencies outlined in the Mech/Elec report (see below.)

Additional design elements should be incorporated when planning for future expansions/new construction. Correction of deficiencies noted above for code and safety reasons are a firmly required. Overnight quarters, showers, appropriate locker rooms and staff areas at a minimum should be considered, even if full-time (paid) fire-fighting staff are not expected to be used. (Note that the life-safety code governing fire stations distinguishes between *Volunteer* type fire departments (NFPA 1720) and *Career* (paid professional) fire departments (NFPA1710). There are a number of differences in the design and operational requirements that are significant. From our research with the Town and the Village staff, both departments are currently Volunteer type departments, and there are no plans to move toward a Career type service delivery. That said, retention of

qualified and trained fire-fighters is a significant challenge for both departments. It will be important to provide high quality, code compliant fire stations with appropriate amenities in order to attract and retain reliable volunteers.

Location is somewhat challenging with regard to potential expansion space and response time requirements. Given the geographic size of the Town and remoteness of some northern areas, it may not be possible to meet code required response times with a single station. Also, the station is currently co-located on parcel with the DPW which is also short on space. The study numbers show that both facilities cannot be fully accommodated on the current site. Several options will be considered in later phases of the study.

Village Fire Station: Pearl St. / 5 Corners

The Village station at 5 Corners is a concrete block, 3 bay building with a partial second floor containing staff and training spaces. It faces many of the same challenges to comply with changing regulations as outlined in the Town station review above. Improvements to the decontamination process for dirty gear, separation of clean from dirty, separated storage for turn-out gear, better facilities for filling/servicing the breathing tank systems, showers, and sprinklers are needed at the village station. In addition, the staff support areas and bathrooms are undersized or downright cramped. That said, the department is exceptionally clean and well maintained. Staff is well organized and no comments were received about build quality or size of the station. Even so, by code, there should be certain upgrades to improve the safety of systems noted above. An exhaust collection/discharge system has been installed which greatly improves air-quality in the apparatus bays.

Location seems to be adequate and is endorsed by the Chief. Proximity to 5 corners is ideal for responding anywhere in the service area. Signal control of the 5 Corner traffic lights eliminates most of the timing/traffic issues one might expect. On-site expansion space is limited and concerns over providing for the necessary improvements to the station may be problematic. Location and expansion will be discussed in subsequent Phases of the study. Additional comments follow in the consultant's reports.

Following pages: Consultant's reports on the Fire Stations.

EXISTING SITE PLANS AND DRAWINGS:

Existing drawings of Town and Village departments are available. The format for existing plans varies quite a bit due to available drawing types. Phase 2 and 3 will generate conceptual plan options for the proposed buildings and sites - individually in Phase 2 and in a combined scenario in Phase 3.

Respectfully submitted,
Scott + Partners, Inc.

John B. Alden, AIA

ESSEX JUNCTION FIRE STATION
PEARL ST.

MEMO

To: John Alden
Scott+Partners Architects

From: Robert J. Favali
Vice President | Chief Operating Officer

Date: April 23, 2019

Project: Essex Fire Department MEP Summary Observations

Date of Visit: April 3, 2019

Building is heated by (1) Utica gas-fired hydronic boiler with a single Taco control panel. The boiler appears to be less than 10-year-old with no visual issues. The hydronic heating system has (3) zones; each with a Taco pump that serves finned-tube radiation in the offices areas and a unit heater in the work room.

There is a single natural gas main entrance and meter assembly on the exterior wall.

The Mechanical room is accessed by an exterior door; there is no interior access. It has a floor drain. There are wall penetrations that are not code compliant. Fire caulking at multiple pipe penetrations is missing and abandoned ductwork penetrations into the boiler room do not appear to have fire dampers. There are wooden storage racks and boxes (combustible items) within 36"- 48" of the boiler. There also appears to be the remains of a fuel oil tank level gauge but there is no knowledge of a fuel oil tank on the property.

Offices do not appear to have outside air ventilation (code compliance issue). There are thru-the-wall air conditioning units but these do not satisfy the outside air requirements for these occupied areas. There is a definitive mildew odor in some of the areas suggesting a lack of ventilation air and dehumidification.

The mezzanine-level Dispatch Area has a thru-the-wall air conditioning unit and ceiling-mounted exhaust fan. Outside air ventilation was not observed.

Toilet Rooms are functional but do not appear to be ADA compliant or to comply with recommended water conservation guidelines. Labeling was not available to confirm low lead requirements for the domestic water fixtures. Ceiling-mounted exhaust grilles were observed but we were not able to confirm if the exhaust fan associated with the grilles was operable. There is only a single sink and dishwasher in the Break Room area.

Domestic cold water has a single entrance however we were not able to confirm the age of the water entrance assembly (backflow system). Domestic hot water is provided by (1) Bradford White gas-fired 40-gallon water heater located in the boiler room. A re-circulation pump was not installed suggesting a waste of heated water for service to the mezzanine level sink and toilet room.

The building is not protected by a fire suppression / sprinkler system.

The 3-overhead door Apparatus bays are heated by (2) Reznor gas-fired unit heaters with separate thermostats; no visual issues. There is a single Plymovent #OS-1 truck exhaust system with a single #FSBT-5D exhaust fan mounted on the exterior wall. However, a dedicated CO alarm system was not observed within the Apparatus Bay. There are ceiling-mounted air movement fans within the bay areas that are controlled by manual speed control switches.

The Apparatus Bay has (2) wash-down hose stations and a non-ADA compliant water cooler. A code-required p-trap was not observed on the water cooler drain piping.

There are (3) primary floor drains in the Apparatus Room but we were not able to confirm if an oil/water separator was installed for the underfloor drain piping.

We observed that the Apparatus bays have connections for compressed air, battery charging, and truck vehicle exhaust connections. There is an over-head tank fill hose system but we understand that it is problematic and is not used by the staff.

There is a single 120/208-volt, 3-phase main power entrance that includes a single fully-loaded GE panel (labeled 'LA') and additional Federal Signal and Wadsworth electrical gear that appear to be original to the building. The main disconnect and associated panels are beyond their useful life and may in the future present difficulties with obtaining parts; replacement is recommended. The Simplex #4001 fire alarm system likewise is older and should be replaced.

Lighting throughout the facility appears to have been upgraded. There are also detection systems throughout the facility. A security system was not observed.

Additional photos available upon request.

Boiler Room with Boiler; Note plastic storage boxes in Close Proximity

Boiler Room; Note Wall Penetrations and Wood Storage Racks in Close Proximity

Older Electrical Panels and Disconnects

Apparatus Bay: Note Truck Exhaust and Electrical Drop to Vehicle.
Tank Fill Hose is Wrapped on Ductwork (Not Used)

TOWN FIRE STATION
SAND HILL ROAD

MEMO

To: John Alden
Scott+Partners Architects

From: Robert J. Favali
Vice President | Chief Operating Officer

Date: May 8, 2019

Project: Essex Fire Department MEP Summary Observations

Date of Visit: April 3, 2019

The building is heated by (2) Utica #UB95M-200 gas-fired hydronic boilers (nominal 200MBH input) with a single Taco control panel. The boilers appear to be approximately 8-10 years old with no visual issues. The hydronic heating system has (2) zones; each with a Taco pump that serves unit heaters and finned-tube radiation in the offices areas and apparatus area. The hydronic terminal equipment within the original building (unit heaters, finned tube radiation, etc.) is aged and should be replaced.

There is a single natural gas main entrance and meter assembly on the exterior wall. The piping has surface rust and requires painting for compliance with Vermont Gas regulations.

There is no formal mechanical room. The boilers, pumps, and hot water storage tank are located on a makeshift mezzanine area in the Apparatus Room. The combustible floor evidences significant damage to the structure; has insufficient railings; and floor and ceiling penetrations that are not fire caulked or sealed. It is our opinion that the floor and mezzanine wall represents a hazard and should be immediately repaired or closed to occupants.

The office area has a single roof-mounted unit that was installed when the area was renovated in 2001. Standard useful life cycle for rooftop units is 12-15 years. We are not able to confirm the amount of outside air (if any) this equipment provides to the occupied areas. The unit serves four areas with ductwork and diffusers to each area. A single common return grille is in the Training Room with the thermostat.

The Staff Room / Gear Wash Room has a ductless A/C unit and a small heat recoveree unit. The Dispatch Room also has a ductless unit with a separate zone thermostat. There is a mildew odor in the spaces suggesting a possible mold issue.

The Dispatch Room includes the central server for the building together with the security system. There is a single Sanyo ductless split system in the room. We did not observe a decontamination shower or a dedicated gear washing / drying station room. There is a makeshift gear washing area located in this office area but this is largely a washing machine with small drying rack. It is not sufficient for washing or drying multiple pieces of gear. This may be a source of the mildew odor.

Toilet Rooms are functional but do not appear to be ADA compliant or comply with recommended water conservation guidelines. Labeling was not available to confirm low lead requirements for the domestic

water fixtures. Ceiling-mounted exhaust fans were not observed in the two toilet rooms off the Apparatus Room. There is a functional exhaust fan in the office area toilet-shower room. The Kitchen includes stove, sink, disposal, dishwasher and refrigerator. A hood over the stove was not observed.

Domestic cold water has a single entrance however we were not able to confirm the age of the water entrance assembly (backflow system). The system appears functional but reflects signs of aging with a backflow assembly that requires upgrading. Domestic hot water is provided by (1) Heat Transfer Products HTP #SSC-37 indirect 35-gallon water heater (dated 2013) located on the boiler area mezzanine. A temperature mixing valve and re-circulation pump were observed.

The building is not protected by a fire suppression / sprinkler system.

The 3-overhead door Apparatus bays are heated by (5) hydronic unit heaters (Modine and Vulcan) with separate thermostats. The thermostats are functional with no visual issues. There is no mechanical ventilation system. The Apparatus Bay has (2) functional wash-down hose stations.

There is a trench drain system installed in the Apparatus Room. We understand that the drain does not adequately discharge water within the drain body; standing water in the drain confirms this condition. We also understand that the floor is not pitched towards the drains and that flooding is known to occur (water damage is evident inside the building). An additional surface drain is also in the floor area. We understand that an oil/water separator is not installed for the underfloor drain piping.

We observed that the Apparatus bays have connections for compressed air, battery charging, and an over-head tank fill hose system. The overhead tank fill system is not used. We did not observe a vehicle exhaust system or a CO/NO_2 detection and/or exhaust system in the Apparatus bays.

SCBA system is located within a separate room; we did not observe any deficiencies with the space.

There is a single 120/208-volt, 3-phase 200Amp main power entrance that includes one primary distribution panel and one manual transfer switch. The electrical gear appears to be in clean but aged condition. There is a newer electrical panel in the office area. The backup generator is located in the adjacent Highway Garage building. This is a shared system and the capacity and circuitry is limited; it does not address critical power requirements.

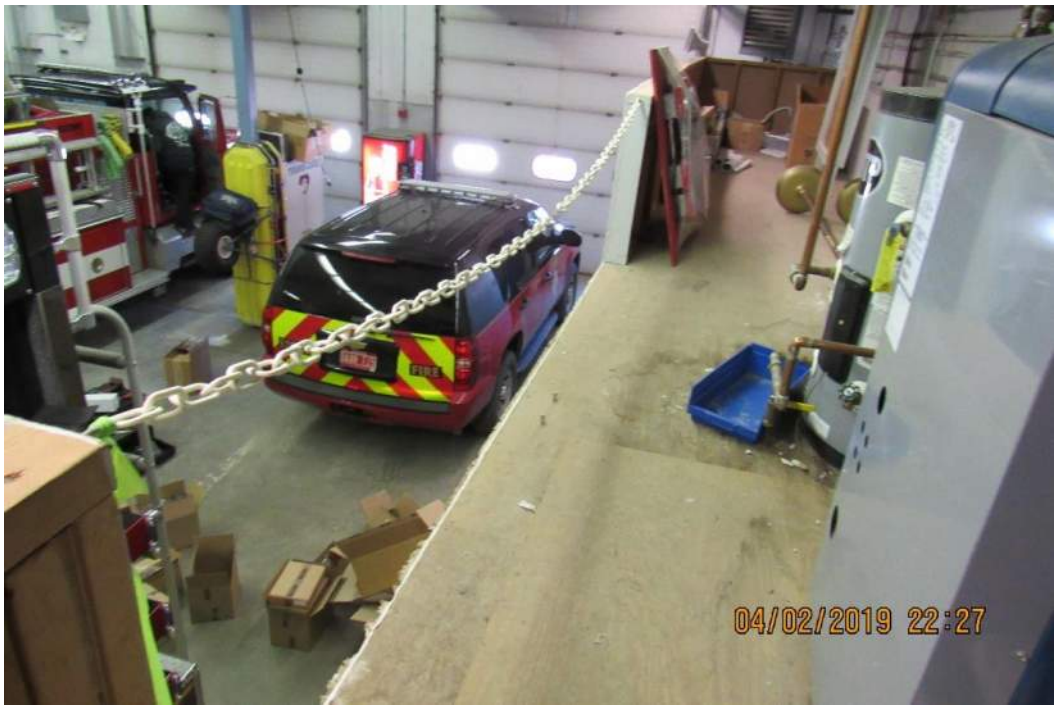
The overhead door controls are aged and the locations appear to be inconvenient for proper door operation by staff and the dispatch personnel.

The existing Honeywell/Firelite MS-9200 addressable fire alarm system appears to be in good condition however remote hardware should be reviewed and replaced if devices are aged or coverage is incomplete.

Upgrading to LED lighting with new controls throughout the facility should be considered together with improving areas that appear to be under-illuminated.

Note on photos: The time/date stamp in the camera was not correct. Please disregard time/date stamps on the attached photos. Photos were taken April 3rd; Additional photos available upon request.

Boiler Room "Mezzanine" with Boilers; Note plastic storage boxes, damaged wood floor and walls.



Boiler Room "Mezzanine" with Boiler and Hot Water Tank; Note single chain across significant wall opening.

Apparatus Room Trench Drain with Water Damage on Wall.

Failed Ceiling Boiler Room Floor

Staff Area with Gear Washer and Drying Rack

Sample Toilet Room; Note non-ADA hardware and rusted heating terminal unit.

Supplemental Report Photo - Front Driveway: Note Damage Surface and Close Proximity of Masonry to Driveway Resulting in Evidence of Water Damage on the Masonry Wall.

Additional FD staff comments.

SCBA system is located in the apparatus bay and not a separate room as noted.
There is no fan in the office bathroom. The original one burnt out and when we went to replace it was determined it only vented into the area above the ceiling and not to the outside. That is why it did not get replaced.
The only water entrance into the building was installed when the building was built in 1973
There is no compressed air for low pressure use such as tire filling tires and air tools in the bay. The only compressed air is for the SCBA units at 6000psi
We have 110v plugs for on board battery trickle chargers for the trucks that are feed by cord reels and extension cords
Overhead door controls for doors 1-4 are only wired like a home garage. The open and closed buttons are tied together and operate as a single button.
The mezzanine walls are too low and the safety chain is non-rated plastic that is used as a guide only.

Essex Fire Department

Structural Building Assessment

James Baker, P.E.

Structural Assessment

This report identifies structural items/issues observed during a site visit/preliminary walk-thru for structural deficiencies. The observations of structural components are limited to only those that are readily exposed to view. No destructive investigations were performed.

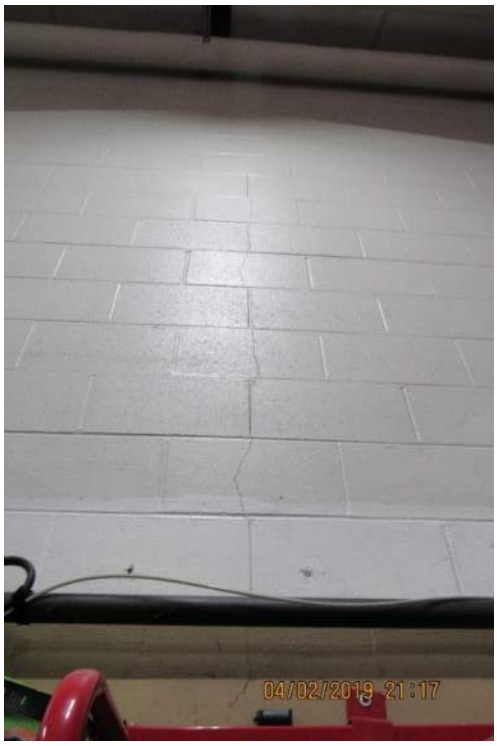
Essex Junction Fire Department

This is a 2-story building consisting of three truck bays, equipment/maintenance shops in the back, and office/meeting rooms above the shops. The building is in reasonably good condition. Only a few discrepancies were observed and are listed below:

1. There is deterioration at the base of the pilasters on the SW corner of the building. The mortar is loose/broken/missing. This is a maintenance issue and can be readily repaired by removing the loose/broken mortar and tuck-pointing new mortar in the joint.

2. There is a crack in the floor at the center truck bay. The crack extends from the outside edge of the floor slab to ±24" inside the building. This crack has been patched however the patch has cracked/loosened on the outside. This is a maintenance issue and should be repaired by removing the loose patch material and replacing with new.

3. There is a vertical crack extending up the west wall through the CMU. It varies in width from hairline to <1/16". While the crack is visibly concerning, it is reported that it has been present for some time and therefore may or may not be a structural concern. It is recommended that the crack is monitored for additional movement and further investigation conducted at that time.

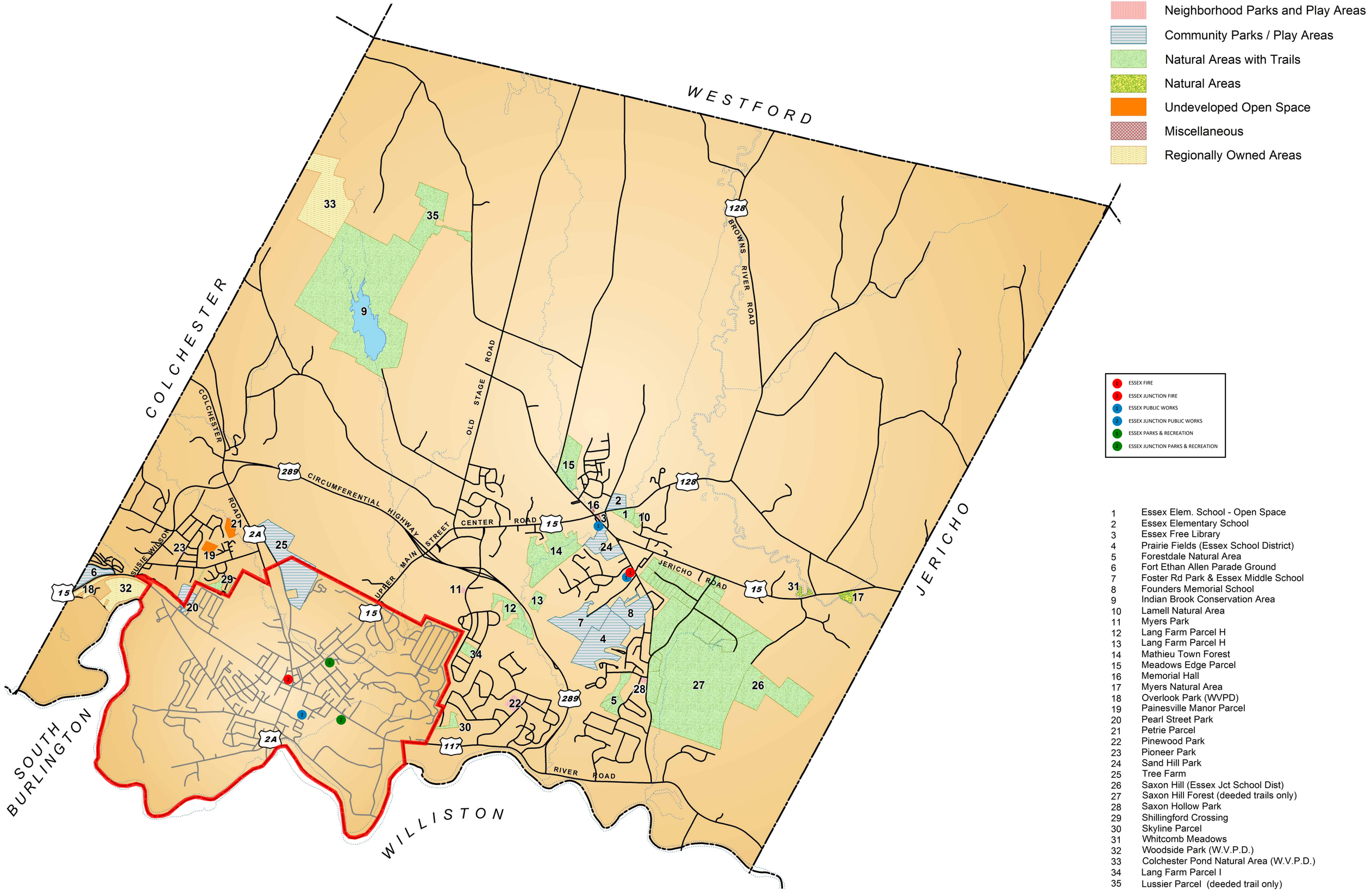


Essex Town fire Department

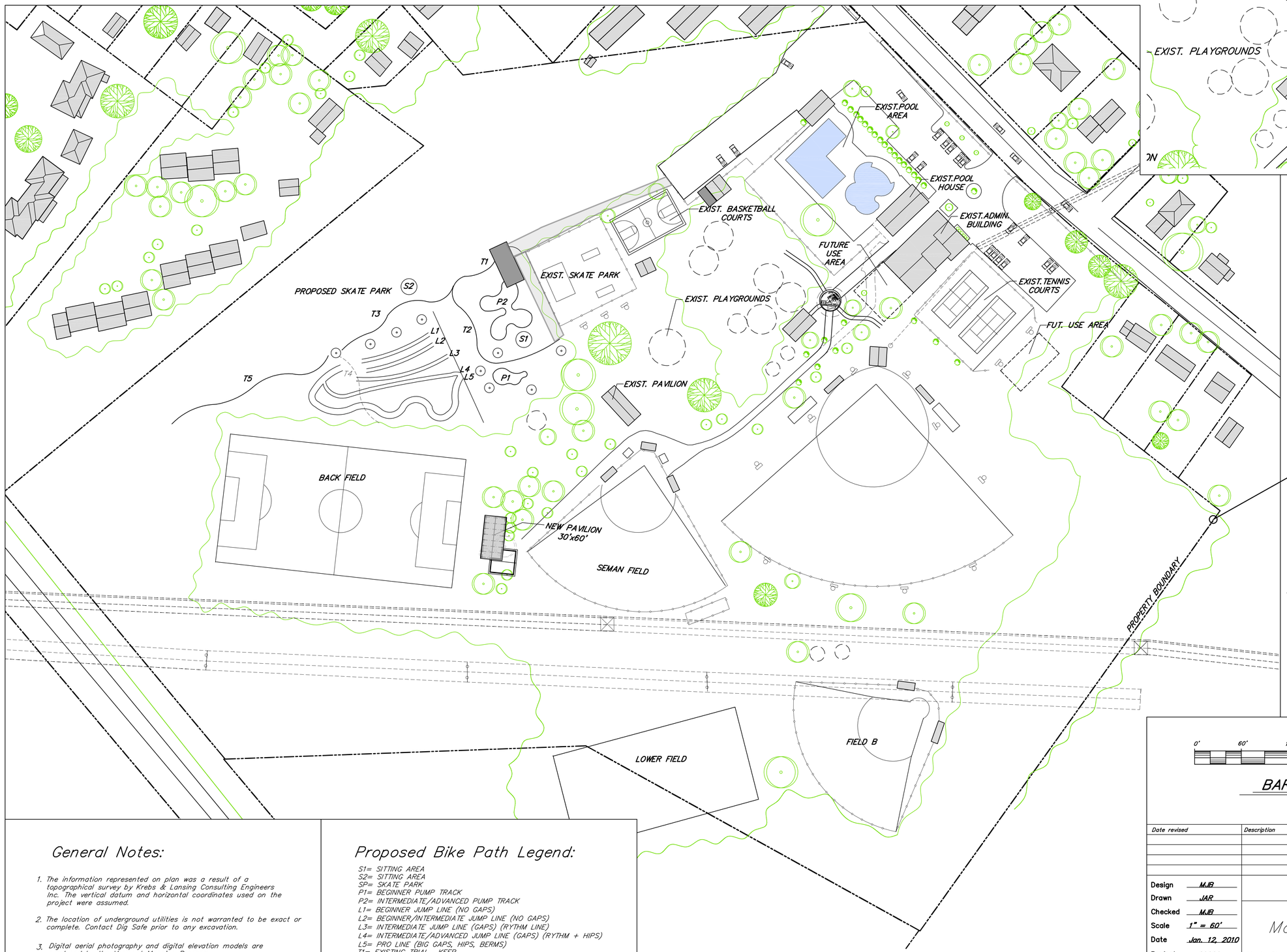
This is a 1-story building consisting of three pass-thru truck bays (front to back) housing 6 trucks and equipment. There is an addition the length of the building on the north side that houses a kitchen, meeting room, bathrooms, and offices. The original building was built in the early 1970's and has been added to several times. This building is in fair condition structurally with most of the deficiencies being cosmetic. Discrepancies are listed below:

1. There is a crack in the center bay floor approximately ±1/8" wide (the phone is reference for crack size). It is reported that the crack first appeared when the fire department started parking larger trucks on the floor. This crack can be repaired now if it becomes a serviceability issue/concern, or it can be monitored for additional movement/deterioration and investigated for remedial action at that time. Any increase of apparatus (truck) weights may overburden the floor construction in the future.

2. There is cosmetic deterioration throughout the interior and exterior of the building. Deterioration includes weathering of the CMU at the base of the building, and rusting of the column bases, etc. This deterioration could be addressed with regular maintenance work (*i.e.*, scraping/painting columns, walls, etc.). The CMU located against the finished parking lot is not a preferred construction detail; an exposed dimension of the concrete foundation wall is preferred to limit potential water and winter salt damage to the CMU



1 Essex Elem. School - Open Space
2 Essex Elementary School
3 Essex Free Library
4 Prairie Fields (Essex School District)
5 Forestdale Natural Area
6 Fort Ethan Allen Parade Ground
7 Foster Rd Park & Essex Middle School
8 Founders Memorial School
9 Indian Brook Conservation Area
10 Lamell Natural Area
11 Myers Park
12 Lang Farm Parcel H
13 Lang Farm Parcel H
14 Mathieu Town Forest
15 Meadows Edge Parcel
16 Memorial Hall
17 Myers Natural Area
18 Overlook Park (WVPD)
19 Painesville Manor Parcel
20 Pearl Street Park
21 Petrie Parcel
22 Pinewood Park
23 Pioneer Park
24 Sand Hill Park
25 Tree Farm
26 Saxon Hill (Essex Jct School Dist)
27 Saxon Hill Forest (deeded trails only)
28 Saxon Hollow Park
29 Shillingford Crossing
30 Skyline Parcel
31 Whitcomb Meadows
32 Woodside Park (W.V.P.D.)
33 Colchester Pond Natural Area (W.V.P.D.)
34 Lang Farm Parcel I
35 Lussier Parcel (deeded trail only)



Legend

- Power pole
- Survey Control Point
- Existing hydrant
- Drainage flow
- Sign
- Light post
- x337.5 — Existing spot elevation
- Approx. Property Line
- W — GV — W — Existing Water Line/gate valve
- g — GPS — g — Existing Gas Line
- Existing tree line
- S — S — Ⓢ — Existing Sewer Line/manhole
- ugp/ugt — Existing electrical/telephone
- SF — SF — Existing Storm Line/catch basin
- 338 — Existing Contour

General Notes:

1. The information represented on plan was a result of a topographical survey by Krebs & Lansing Consulting Engineers Inc. The vertical datum and horizontal coordinates used on the project were assumed.
2. The location of underground utilities is not warranted to be exact or complete. Contact Dig Safe prior to any excavation.
3. Digital aerial photography and digital elevation models are produced by the Vermont Mapping Program.

Proposed Bike Path Legend:

S1= SITTING AREA
S2= SITTING AREA
SP= SKATE PARK
P1= BEGINNER PUMP TRACK
P2= INTERMEDIATE/ADVANCED PUMP TRACK
L1= BEGINNER JUMP LINE (NO GAPS)
L2= BEGINNER/INTERMEDIATE JUMP LINE (NO GAPS)
L3= INTERMEDIATE JUMP LINE (GAPS) (RYTHM LINE)
L4= INTERMEDIATE/ADVANCED JUMP LINE (GAPS) (RYTHM + HIPS)
L5= PRO LINE (BIG GAPS, HIPS, BERMS)
T1= EXISTING TRIAL– KEEP
T2= EXISTING TRIAL– KEEP
T3= EXISTING TRIAL– KEEP–RETURN
T4= EXISTING TRIAL– REMOVE
T5= EXISTING TRIAL– KEEP

SCOTT + PARTNERS ARCHITECTS
20 main street essex junction vermont 05452
p. 802.879.5153 f. 802.872.2764
architecture planning interiors

0' 60' 120' 240' 360'

BAR SCALE 1" = 60'

Date revised	Description	Checked	Date

Design MJB
Drawn JAR
Checked MJB
Scale 1" = 60'
Date Jan. 12, 2010
Project 09999 Maple Street Essex, Vermont

Overall Plan

Maple Street Park & Pool

KREBS & LANSING Consulting Engineers, Inc.
164 Main Street, Colchester, Vermont 05446

File name overall.dwg
Printing date

Maple Street Park

Essex Junction Parks & Rec

Legend

Google Earth

N

500 ft

MAPLE STREET PARK- ADMIN BUILDING

LOCATE WINDOWS AS PER DETAIL 6/A303. CENTERLINE OF WOOD POSTS BETWEEN WINDOWS TO ALIGN WITH CENTERLINE OF ROOF BRACKET. SEE 6/A303 FOR WINDOW G.C. TO COORDINATE.

ZONE OF MEZZANINE – SEE DRAWING 1/A102

ALIGN CENTERLINE OF WOOD POST WITH CENTERLINE OF CEILING PEAK. SEE 6/A303 FOR WINDOW AND POST SPACING.

PIPE COLUMN CENTERED WITHIN 2x6 STUD FRAME WALL

PIPE COLUMN CENTERED WITHIN 2x4 STUD FRAME WALL

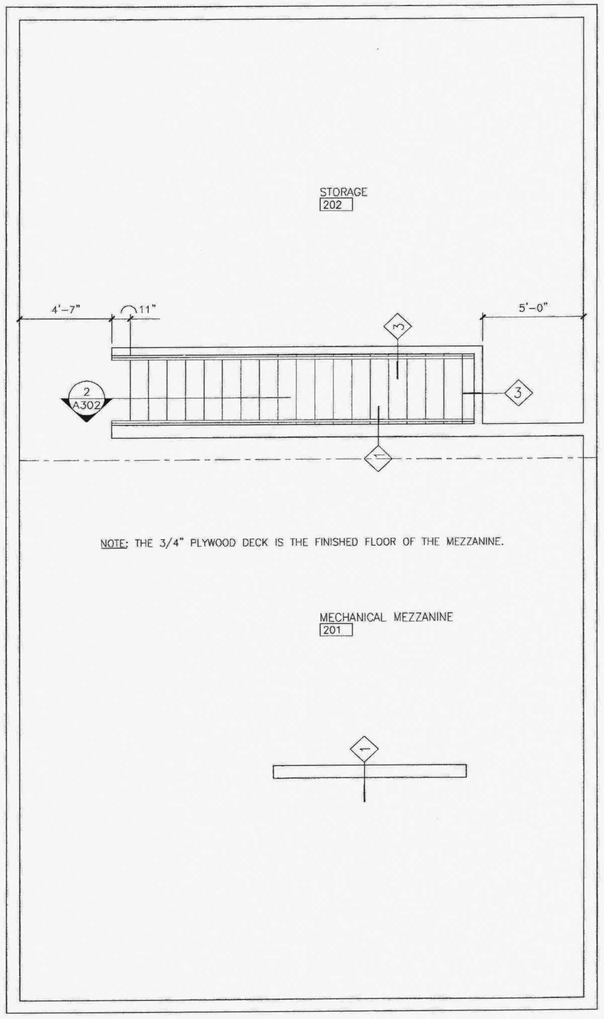
TWO, 5'-0" GLASS ENCASED BULLETIN BOARDS

SEE LAYOUT PLAN 17/A802 FOR DESK DIMENSIONS & SEE 7/A801 FOR DESK ELEVATIONS

1/2" PAINTED PLYWOOD ENTIRE LENGTH OF WALLS FOR ELECTRICAL AND TELEPHONE PANELS

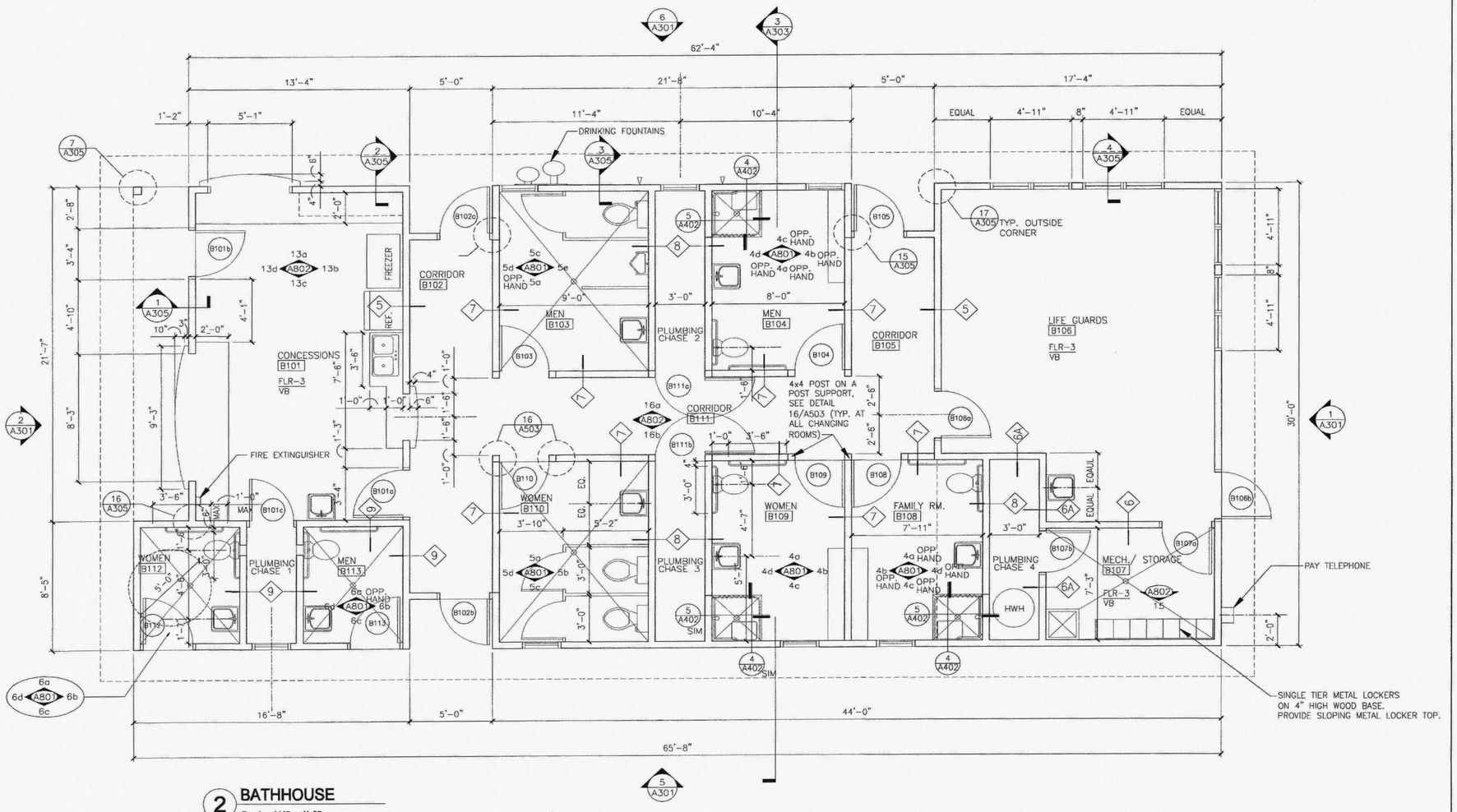
LOCATE WINDOWS EQUAL DISTANCE FROM CORNER.

MAPLE STREET PARK - BATH HOUSE

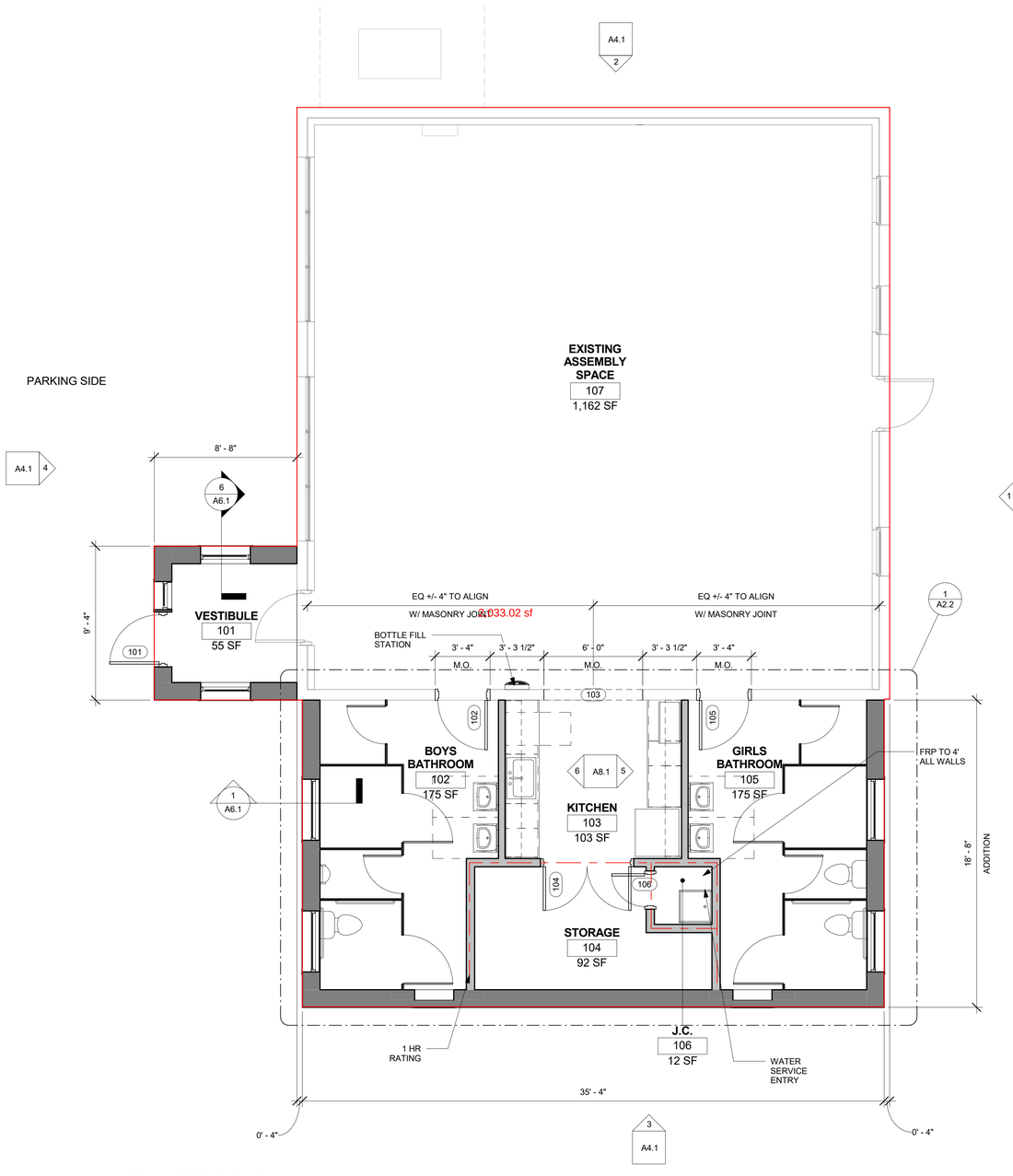


Admin Building - upper level
(storage and mechanical only)

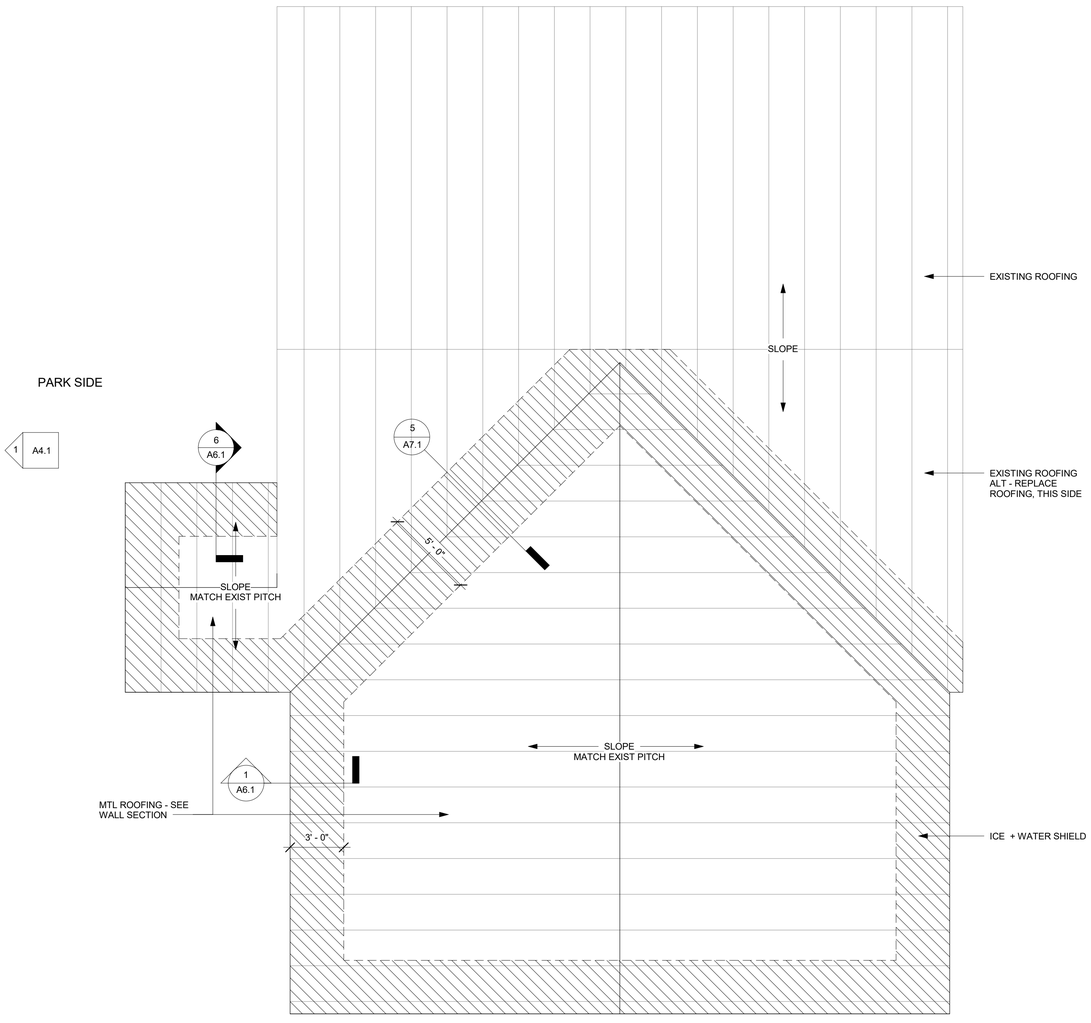
1 **RECREATION BUILDING MEZZANINE**
Scale: 1/4" = 1'-0"



2 **BATHHOUSE**
Scale: 1/4" = 1'-0"



1 PROPOSED FIRST FLOOR PLAN
1/4" = 1'-0"



2 ROOF
1/4" = 1'-0"

CONSTRUCTION SET 08/31/16

LICENSED ARCHITECT JOHN B. ALDEN NO. 2230 STATE OF VERMONT

SCOTT + PARTNERS
ARCHITECTURE
20 MAIN ST. ESSEX JUNCTION, VT 05452
T. 802.879.5153 | F. 802.872.2764 | SCOTTPARTNERS.COM

project name:
MAPLE STREET PARK - CAMP
BUILDING BATH ADDITION

project address:
71 MAPLE STREET
ESSEX JUNCTION, VT 05452

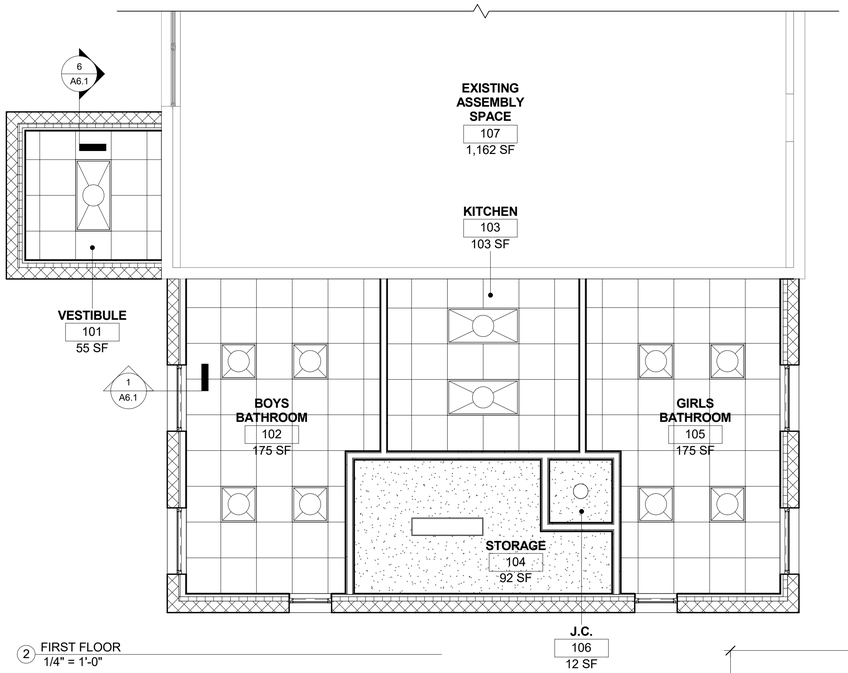
scale:	1/4" = 1'-0"
project no.	15-1047
checked by:	JA
drawn by:	JG
date:	08/31/16

Date	Revisions

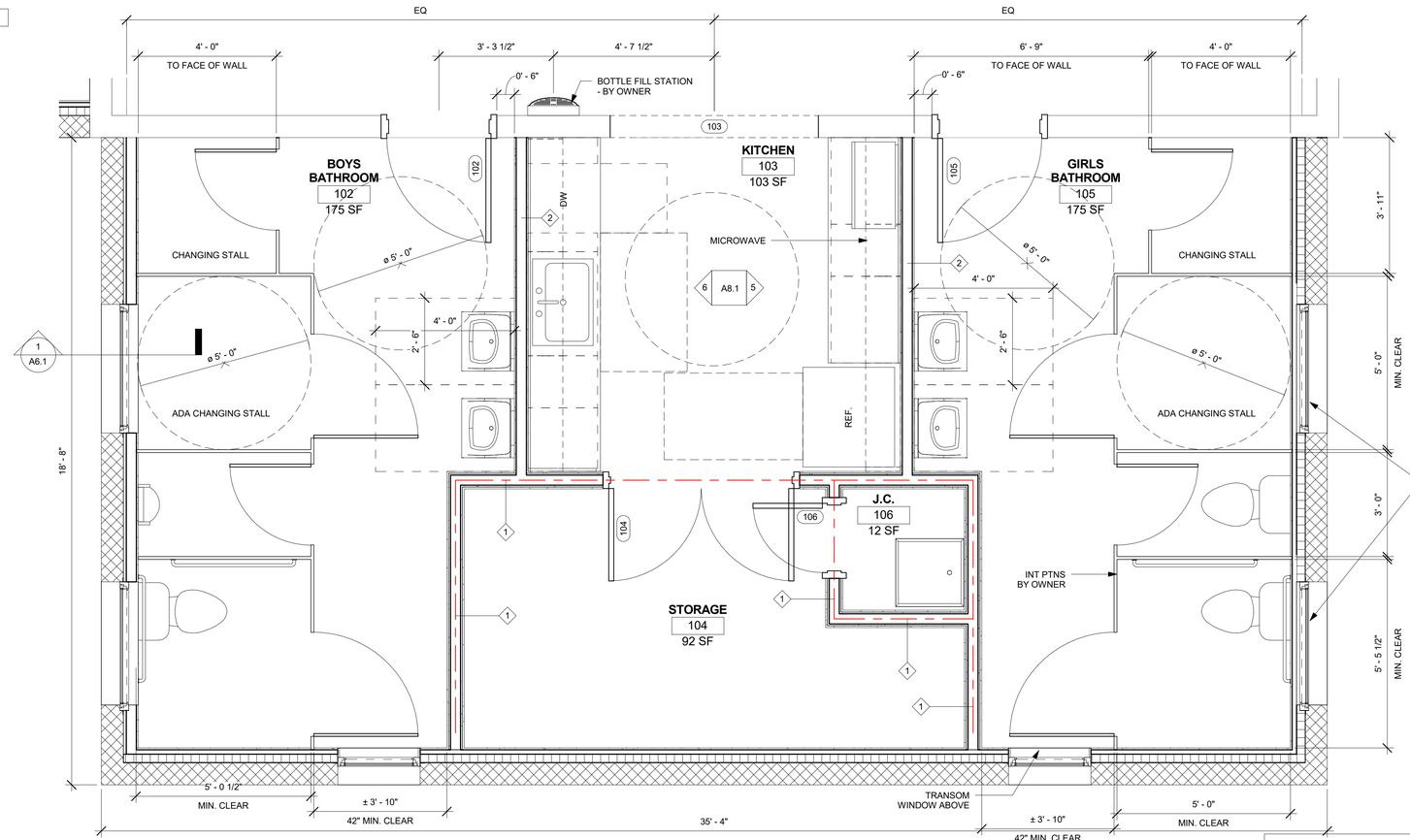
sheet title:
FLOOR + ROOF PLAN

sheet no.
A2.1

8/31/2016 8:26:03 AM | S:\1-S+P-Projects\5-MUNCIPAL\Village of Essex Jct\Maple Street Park\Maint Conversion to Day Care- New Maint 2015\Maint Garage_bath addtion\DWG\REVIT\CAMP BUILDING-BATH ADDITION.rvt



2 FIRST FLOOR
1/4" = 1'-0"



1 ENLARGED KITCHEN + BATHROOM PLAN
1/2" = 1'-0"

CONSTRUCTION SET 08/31/16

LICENSED ARCHITECT
JOHN B. AUDER
NO. 2230
STATE OF VERMONT

SCOTT + PARTNERS
ARCHITECTURE
20 MAIN ST. ESSEX JUNCTION, VT 05452
T. 802.879.5153 | F. 802.872.2764 | SCOTTPARTNERS.COM

project name:
MAPLE STREET PARK - CAMP
BUILDING BATH ADDITION

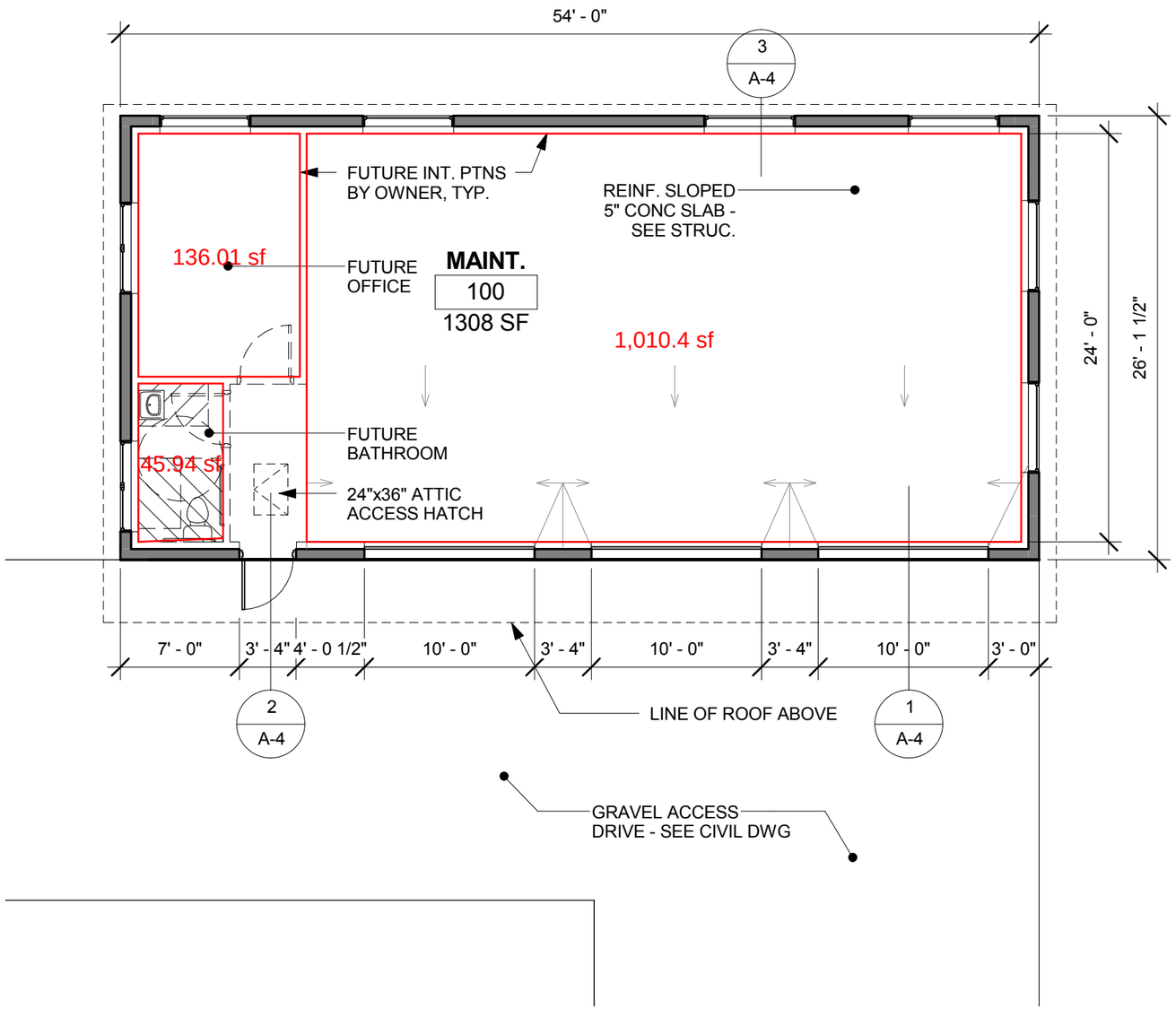
project address:
71 MAPLE STREET
ESSEX JUNCTION, VT 05452

scale:	As indicated
project no.	15-1047
checked by:	JA
drawn by:	JG
date:	08/31/16

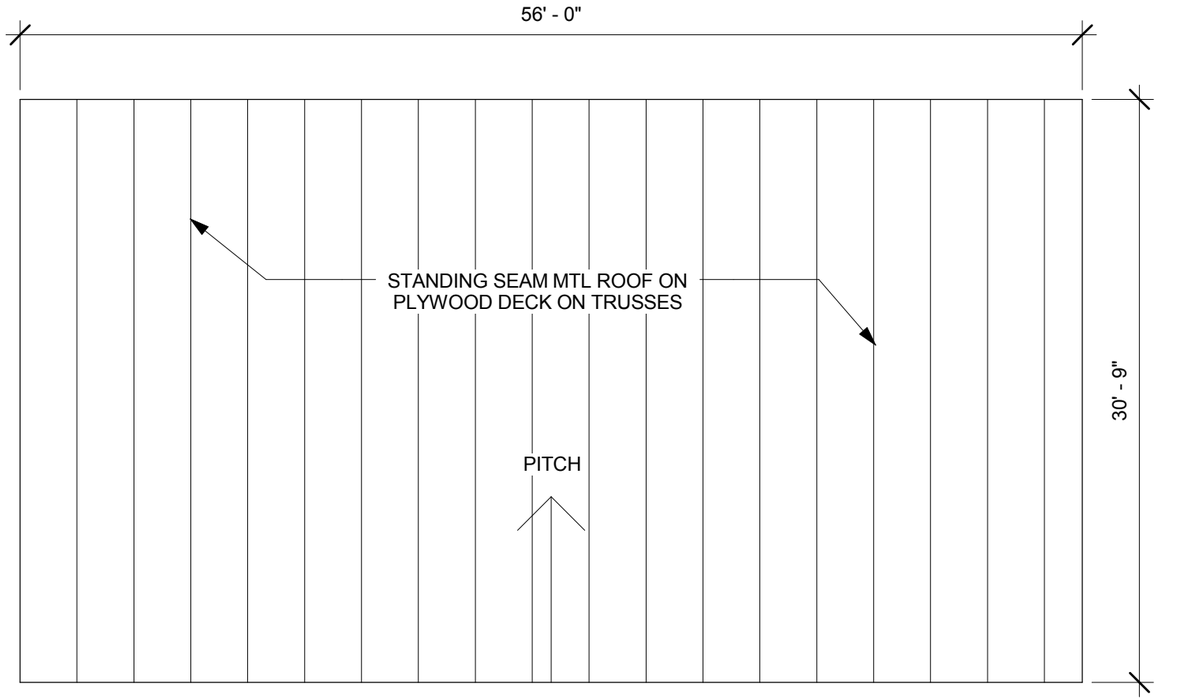
Date	Revisions

sheet title:
ENLARGED PLAN
+ RCP

sheet no.
A2.2



1 FIRST FLOOR PLAN 1/8"
1/8" = 1'-0"



2 ROOF PLAN 1/8"
1/8" = 1'-0"

MAPLE STREET PARK - NEW MAINTENANCE GARAGE

A-1 PROPOSED FLOOR + ROOF PLANS

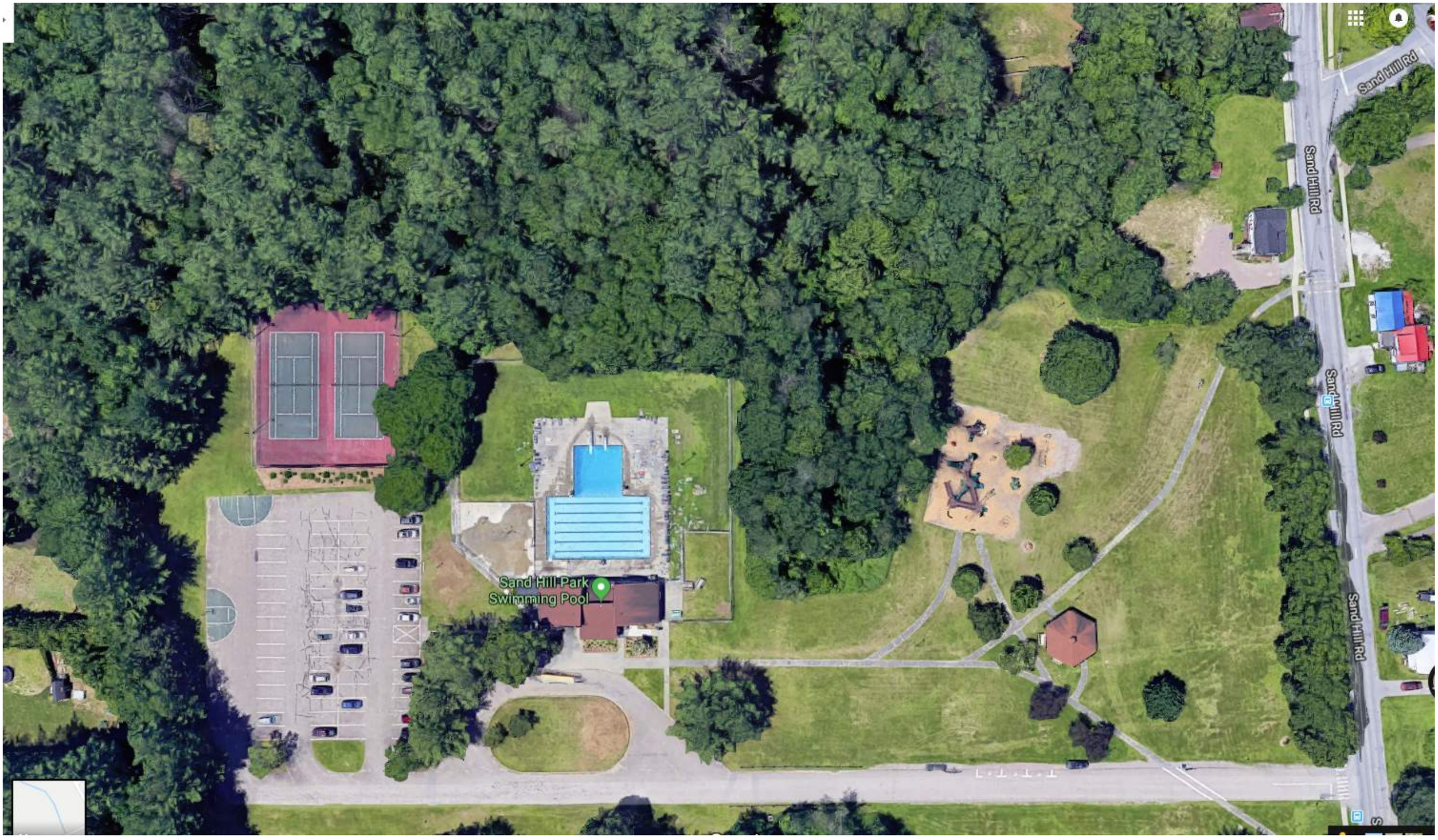
07/07/15

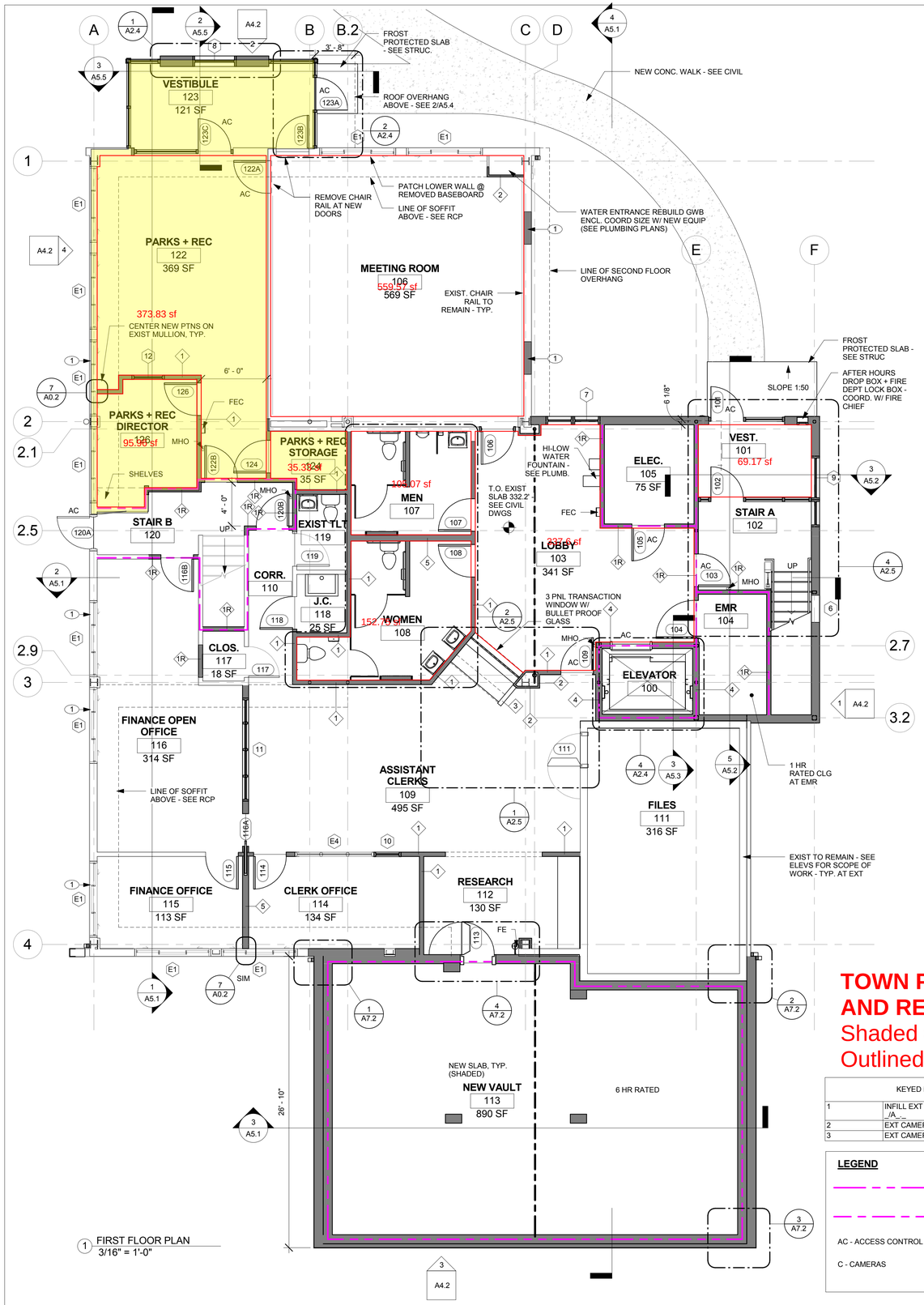
LICENSED ARCHITECT
JOHN B. ALDEN
NO. 2230
STATE OF VERMONT

SCOTT + PARTNERS
ARCHITECTURE

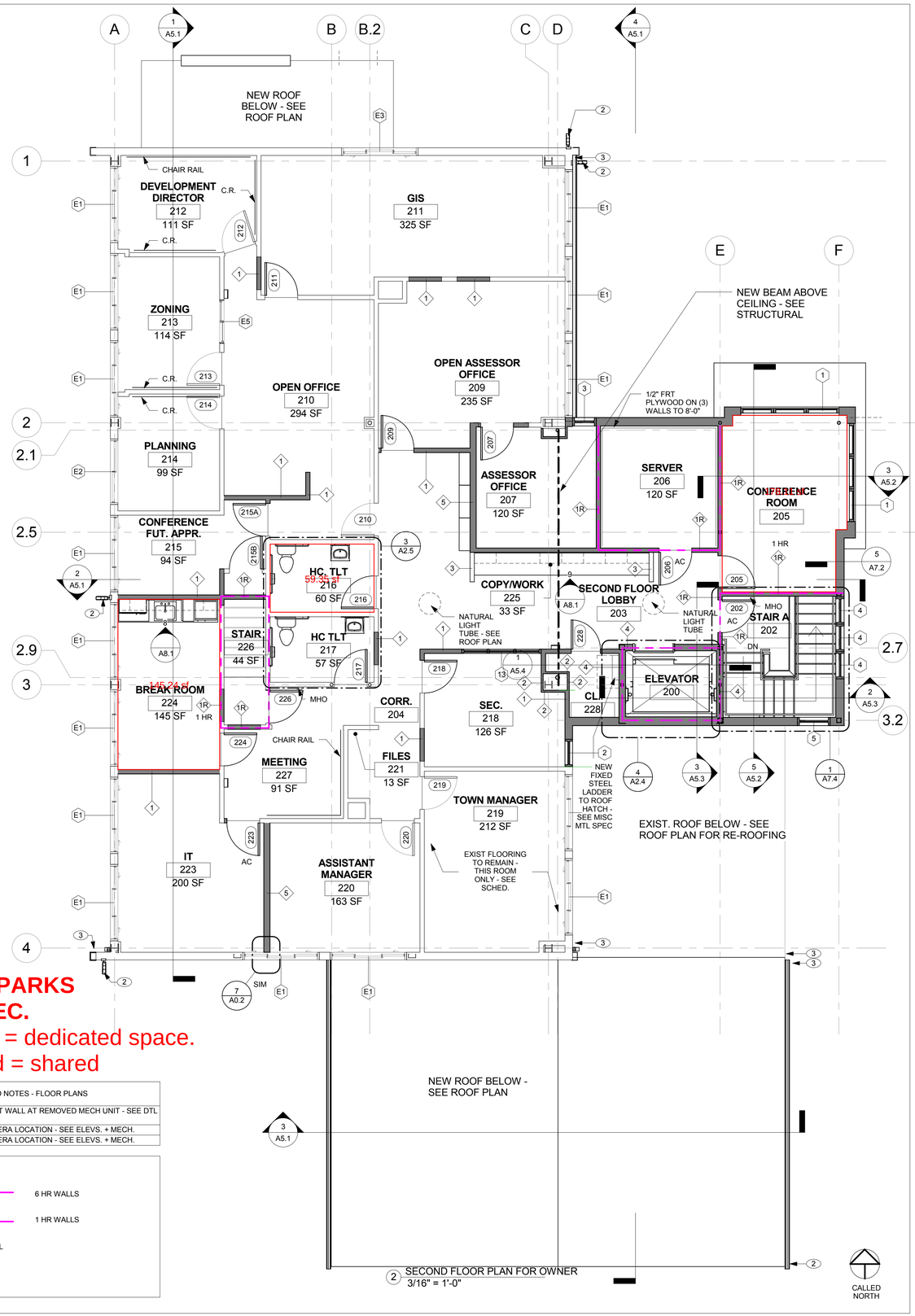
20 MAIN ST. ESSEX JUNCTION, VT 05452
P: 802.879.5153
F: 802.872.2764
SCOTTPARTNERS.COM

ESSEX - SAND HILL PARK





1 FIRST FLOOR PLAN
3/16" = 1'-0"



2 SECOND FLOOR PLAN FOR OWNER
3/16" = 1'-0"

TOWN PARKS AND REC.
Shaded = dedicated space.
Outlined = shared

KEYED NOTES - FLOOR PLANS	
1	INFILL EXT WALL AT REMOVED MECH UNIT - SEE DTL _/A_._
2	EXT CAMERA LOCATION - SEE ELEVS. + MECH.
3	EXT CAMERA LOCATION - SEE ELEVS. + MECH.

LEGEND

6 HR WALLS

1 HR WALLS

AC - ACCESS CONTROL

C - CAMERAS

CALLED NORTH

SCOTT + PARTNERS ARCHITECTURE
20 MAIN ST. ESSEX JUNCTION, VT 05452
P. 802.879.5153 F. 802.872.2764 SCOTTPARTNERS.COM

project name:
TOWN OF ESSEX - 81 MAIN STREET, ESSEX, VT

scale:	As indicated
project no.	14-986
checked by:	JA
drawn by:	KE/JM
date:	04.10.2015

Date	Revisions

sheet title:
FIRST AND SECOND FLOOR PLANS

sheet no.
A2.1

Fire Station
Essex Junction

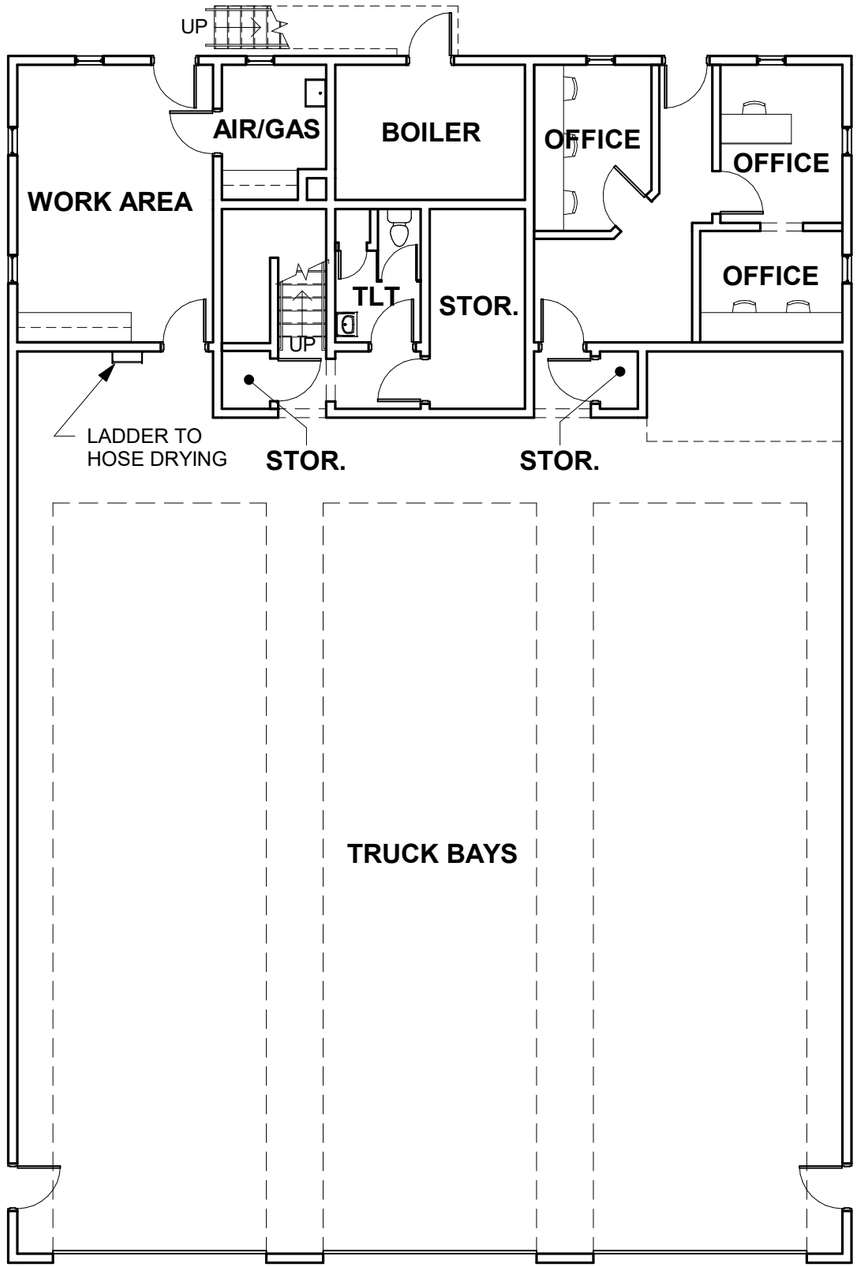
ESSEX JUNCTION - FIRE
EXISTING PROGRAM ELEMENTS

18 DESIGNATED
PARKING SPACES

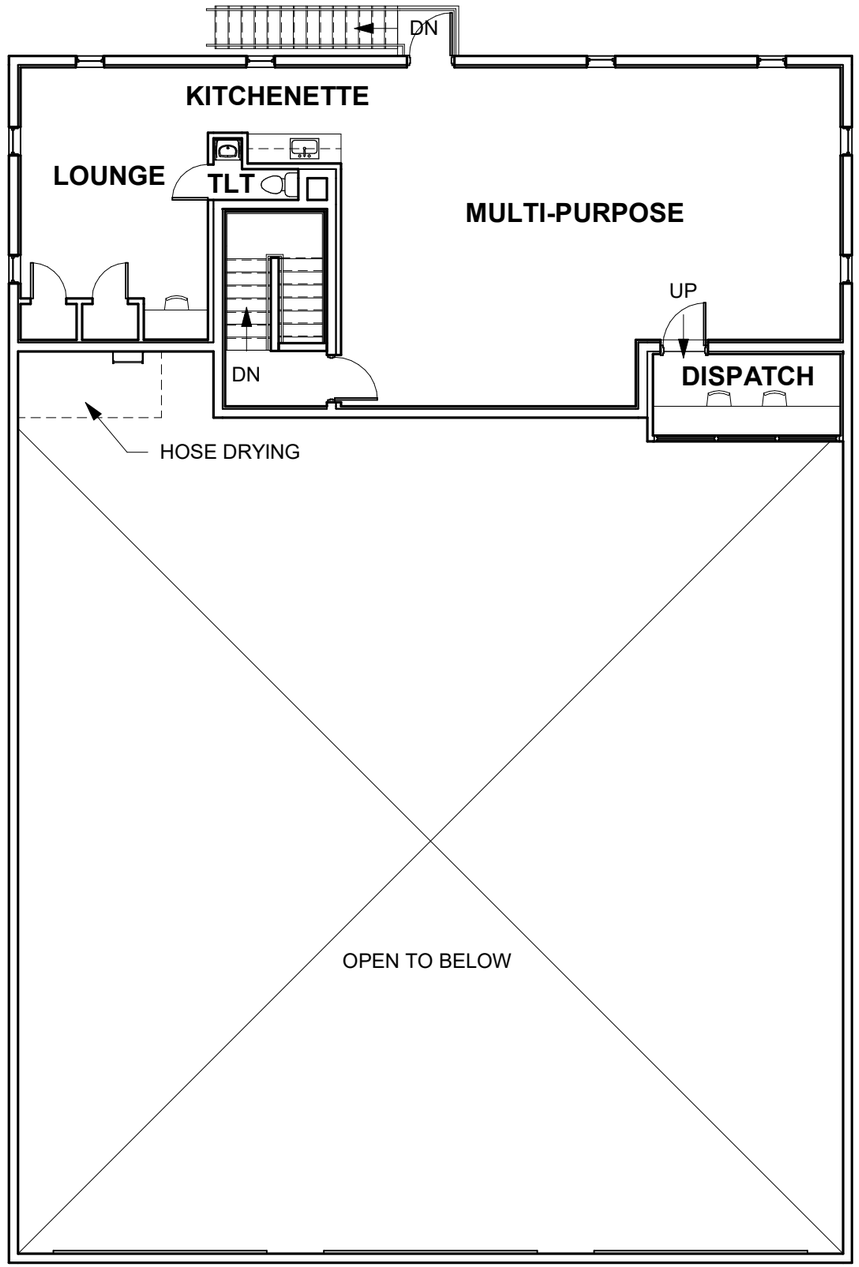
SCOTT + PARTNERS
ARCHITECTURE

N

100 ft



1 FIRST FLOOR PLAN
3/32" = 1'-0"



2 SECOND FLOOR PLAN
3/32" = 1'-0"

ESSEX JUNCTION FIRE STATION

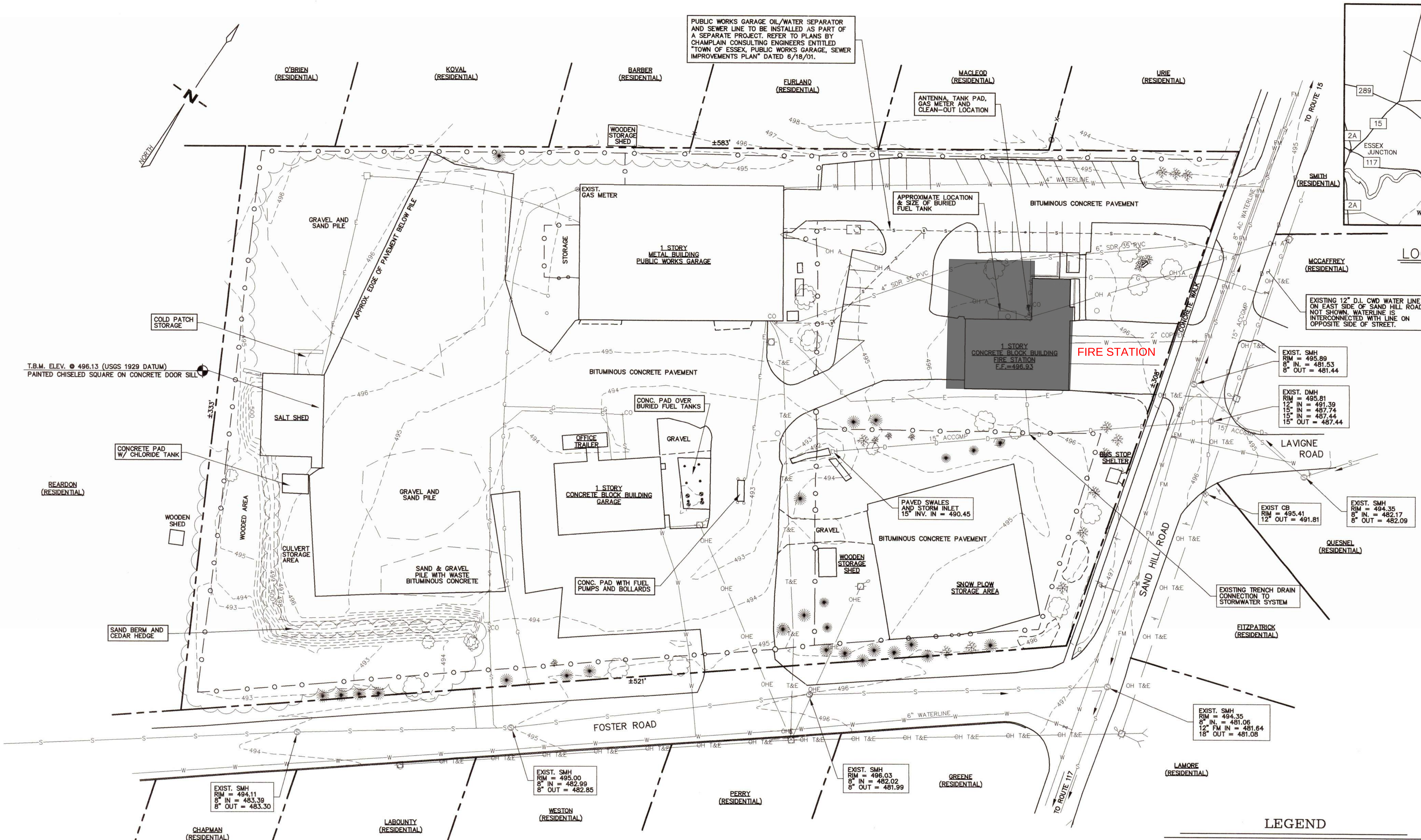
1' 10' 30'
5' 20'

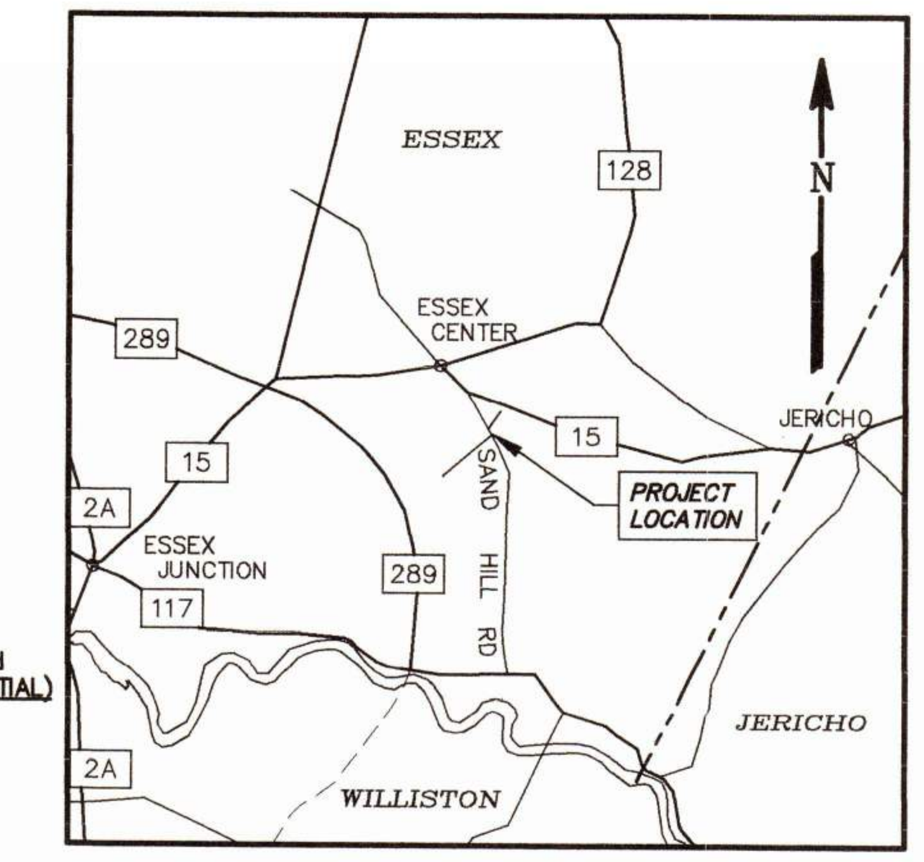
EXISTING FLOOR PLANS

04/08/19

SCOTT + PARTNERS
ARCHITECTURE

7 CARMICHAEL ST. ESSEX, VT 05452
P: 802.879.5153
F: 802.872.2764
SCOTTPARTNERS.COM





LOCATION MAP
SCALE 1:90,000

DESIGN SUMMARY:

1. PROJECT DESCRIPTION:

SITE IMPROVEMENTS, INCLUDING EXPANSION TO THE FIRE STATION BUILDING, ADDED PAVEMENT, NEW STORMWATER TREATMENT, AND NEW SEWER LINE CONNECTIONS AT THE TOWN OF ESSEX PUBLIC WORKS FACILITY AT 190 SAND HILL ROAD IN ESSEX.

2. CONTACTS:

OWNER: – TOWN OF ESSEX
81 MAIN STREET
ESSEX JUNCTION, VERMONT 05452
CONTACT: DENNIS LUTZ, P.E.
(802) 878–1344

PROJECT ENGINEER: – CHAMPLAIN CONSULTING ENGINEERS
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
CONTACT: GREG BOMBARDIER, P.E.
(802) 863–8060

PROJECT ARCHITECT: – SCOTT & PARTNERS
20 MAIN STREET
ESSEX JUNCTION, VERMONT 05452
CONTACT: JOHN ALDEN
(802) 879–5153

GENERAL NOTES:

(1) This plan is for topographic purposes only and is not to be construed as a property boundary survey. Property lines shown are for reference only.

(2) Prior to commencing site work, the General Contractor shall verify existing field conditions. The Project Engineer shall be notified immediately where discrepancies exist between the project drawings and actual field conditions.

(3) The General Contractor shall contact **DIG SAFE** at **(1–888–344–7233)** seventy–two hours prior to any excavation to accurately establish the location of all underground utilities located on the project site.

(4) Where dimensions on the project drawings are unclear, contact the Project Engineer immediately for clarification.

(5) It is the General Contractor's responsibility to ensure that the Project drawings reflect the latest revisions.

JOB SITE SAFETY NOTES:

(1) PROVIDE ADEQUATE SAFETY FOR ALL WORKERS AND THE GENERAL PUBLIC ON AND NEAR THE JOB SITE AT ALL TIMES.

(2) FOLLOW THE SAFETY PROCEDURES SET FORTH BY THE VERMONT OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (VOSHA), AT A MINIMUM, AT ALL TIMES.

(3) ALL EXCAVATION AND HOLES SHALL BE FILLED, COVERED OR BARRICADED AT THE END OF EACH WORKING DAY.

(4) AT THE END OF EACH WORKDAY, ALL UNFINISHED WORK SHALL BE IDENTIFIED IN SUCH A MANNER SO AS TO WARN UNAUTHORIZED PERSONNEL FROM ENTERING OR USING THE UNFINISHED AREA.

SITE PLAN
(1 / C-1)
SCALE 1" = 30'

Graphic Scale
30 0 30 60 90 120 feet

SITE PLAN INFORMATION TAKEN FROM SURVEY PREPARED BY D. L. HAMLIN CONSULTING ENGINEERS DATED: 7–27–00

PROJECT SUMMARY

ZONING DISTRICT	MEDIUM DENSITY RESIDENTIAL (R2)
SITE AREA	169,884 sf (3.90 ac)
EXISTING BUILDING COVERAGE	17,321 sf (0.40 ac.) 10.2%
PROPOSED BUILDING COVERAGE	23,209 sf (0.53 ac.) 13.7%
EXISTING LOT COVERAGE	94,525 sf (2.17 ac.) 55.6%
PROPOSED LOT COVERAGE	100,428 sf (2.31 ac.) 59.1%
NUMBER OF PARKING SPACES	41 (UNCHANGED)

LEGEND

COMBINATION POLE	CONTOUR (— — — 400 — — —)
LIGHT	PROPERTY LINE
BUSH	WATER LINE (—W—)
CONIFER TREE	SEWER LINE (—S—)
DECIDUOUS TREE	STORM DRAIN LINE (—D—)
EDGE OF WOODS	NATURAL GAS LINE (—G—)
SEWER MANHOLE	UNDER GROUND TELEPHONE (—T—)
DRAINAGE MANHOLE	UNDER GROUND ELECTRICAL (—E—)
CATCH BASIN	OVERHEAD ELECTRICAL (—OH E—)
HYDRANT	OVERHEAD ANTENNA LINE (—OH A—)
GATE VALVE	OVERHEAD TELEPHONE & ELECTRICAL (—OH T&E—)
MONITOR WELL	CHAINLINK FENCE (—O—O—)
CLEAN OUT	WIRE FENCE (—X—)
SIGN	

REVISIONS | BY

CHAMPLAIN CONSULTING ENGINEERS
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
(802) 863–8060
(802) 864–1878 FAX

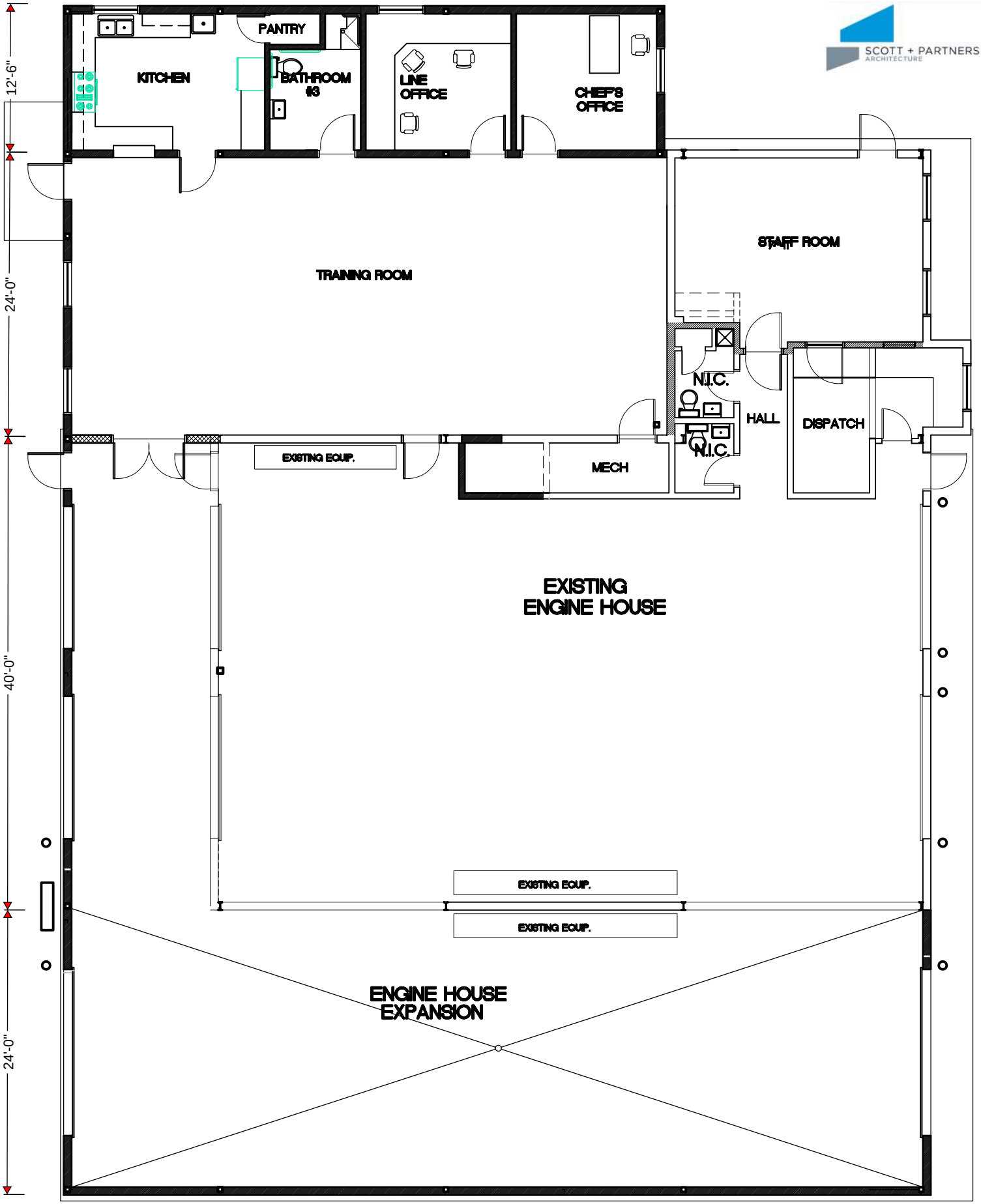
STATE OF VERMONT – GREGORY J. BOMBARDIER – NO. 4496 – REGISTERED PROFESSIONAL ENGINEER

TOWN OF ESSEX
FIRE STATION EXPANSION
EXISTING SITE PLAN
BID SET

ESSEX VERMONT

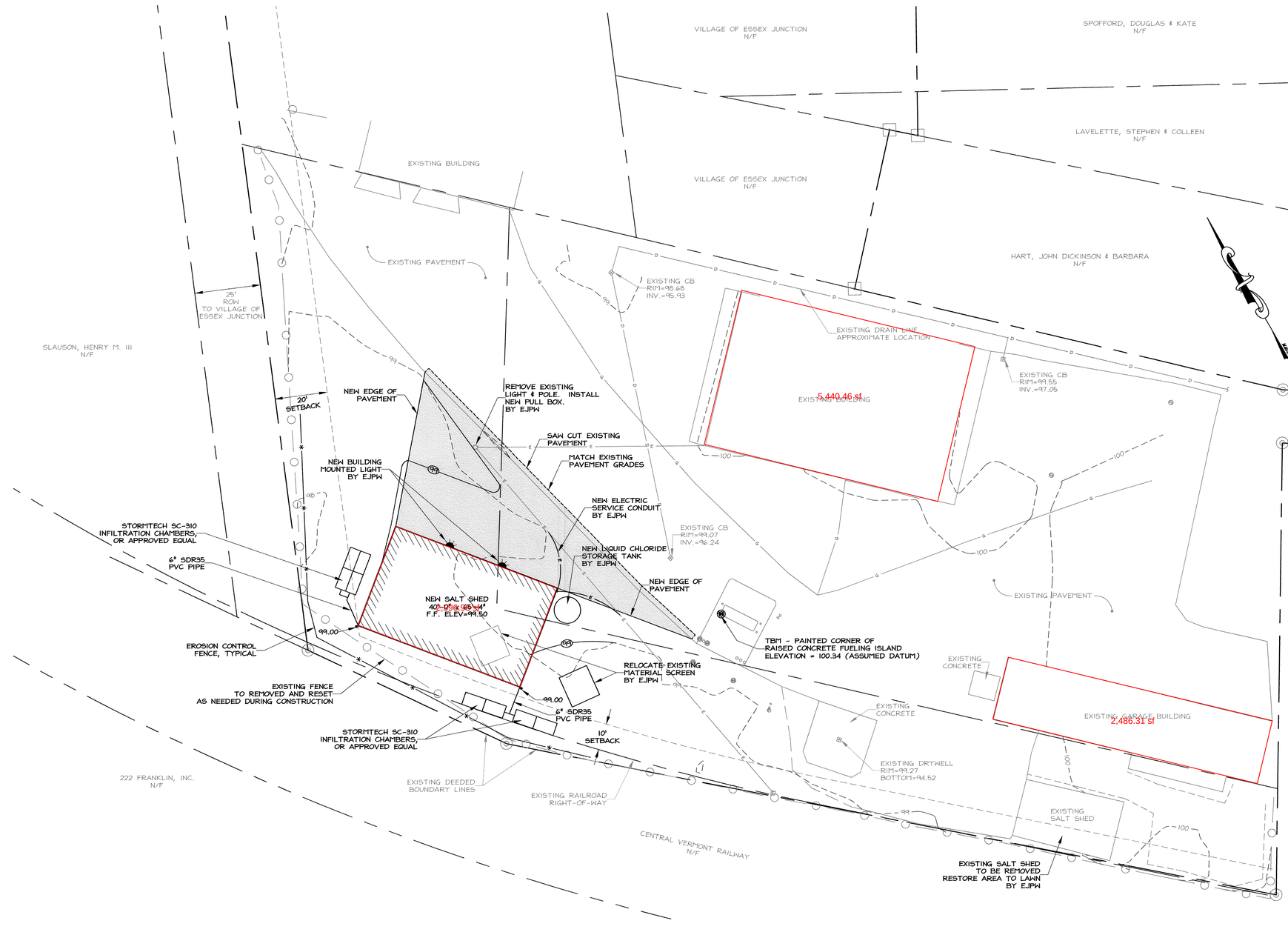
DRAWN	CCE
CHECKED	GJB
SCALE	1" = 30'
DATE	09/07/01
JOB NO.	21115
SHEET	C–1

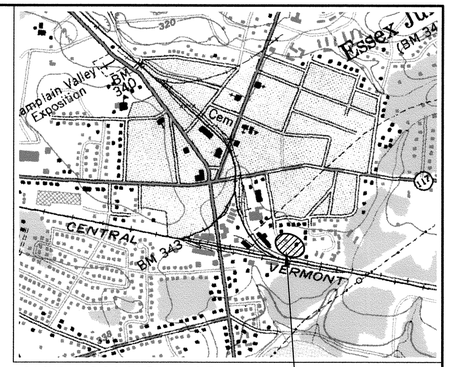
ESSEX TOWN FIRE STATION - SAND HILL ROAD



THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-344-7233 PRIOR TO ANY EXCAVATION AT LOCATIONS WHICH MAY BE IN THE IMMEDIATE VICINITY OF UNDERGROUND UTILITIES.

WARNING:
FATALLY TOXIC GASSES MAY BE PRESENT IN UNDERGROUND PIPING SYSTEMS AND WASTE SYSTEM STRUCTURES.





SITE LOCATION MAP
1"=1000'

PROJECT SITE

PROJECT STATISTICS

	AREA (SF)	% OF TOTAL	% ALLOWED
LOT SIZE	114,906		
EXISTING COVERAGE	84,949	73.9	80% (WITH WAIVER)
NEW IMPERVIOUS AREA	0	0	80% (WITH WAIVER)
TOTAL LOT COVERAGE	84,949	73.9	80% (WITH WAIVER)

ZONING DISTRICT: MIXED COMMERCIAL USE

SETBACKS:
FRONT: 20'
SIDE: 10'
REAR: 10'

NOTES

1. BOUNDARY LINES SHOWN ON THIS PLAN ARE BASED ON TAX MAP INFORMATION AND A PLAN ENTITLED "NEW DRAIN CONNECTION", SHEET S-2, DATED 10/04/96, LAST REVISED 10/10/96, PREPARED FOR THE VILLAGE OF ESSEX JUNCTION BY DONALD L. HAMLIN CONSULTING ENGINEERS, INC.
2. EXISTING TOPOGRAPHY AND SITE FEATURES SHOWN ON THIS PLAN ARE BASED ON TOPOGRAPHIC SURVEY WORK PERFORMED IN APRIL, 2005 BY DONALD L. HAMLIN CONSULTING ENGINEERS, INC.
3. WORK ITEMS INDICATED AS 'BY EJPW' ARE TO BE PERFORMED BY THE VILLAGE OF ESSEX JUNCTION PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL COORDINATE WITH THE PUBLIC WORKS FOREMAN THROUGHOUT CONSTRUCTION.

VILLAGE DPW SITE PLAN

DATE 06/14/07	REVISION REVISED STORMTECH CHAMBER LOCATION	BY SOL
DATE 07/07/05	REVISION REVISED BLDG SIZE FROM 64'-8" TO 65'-4", ADD NOTE 3 REMOVE & RESET FENCE, INFILTRATION CHAMBER CONFIG	BY JPK

CLIENT
VILLAGE OF ESSEX JUNCTION
2 LINCOLN STREET
ESSEX JUNCTION, VT 05452

PROJECT TITLE
NEW SALT SHED

DRAWING TITLE
SITE PLAN

Survey	MRM
Design	JPK
Drawn	MRM/JPK
Checked	JPK/RFH
Date	05/16/05

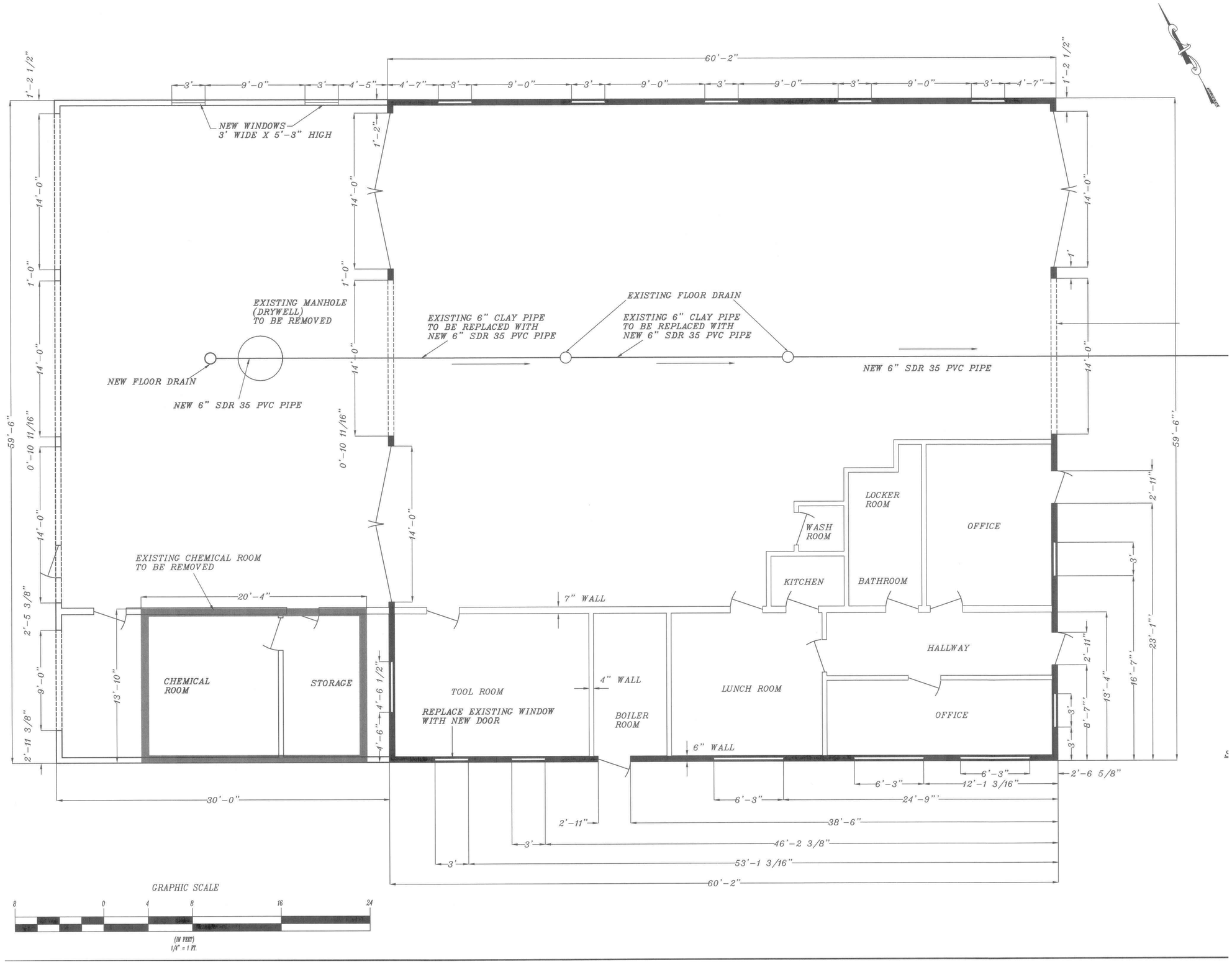
STATE OF VERMONT
TIMOTHY P. KERSHNER
No. 7201
REGISTERED PROFESSIONAL ENGINEER

Donald L. Hamlin Consulting Engineers, Inc.
136 Pearl Street
Essex Junction, Vermont

Scale	1" = 20'
Job	05-040
File	9281
Drawing	1

VILLAGE DPW- AERIAL

PUBLIC WORKS GARAGE

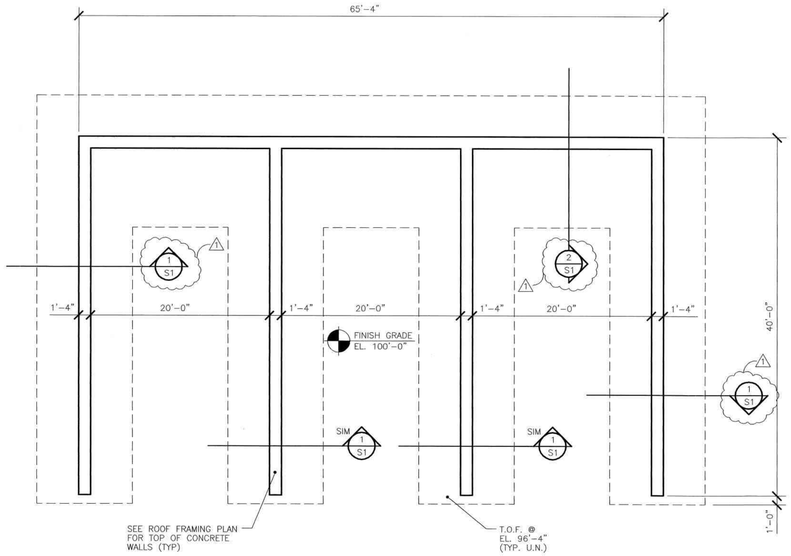


GRAPHIC SCALE

8 0 4 8 16 24

(IN FEET)
1/4" = 1 FT.

SCOTT + PARTNERS
ARCHITECTURE



FOUNDATION PLAN

$\frac{1}{8}$"=1'-0"

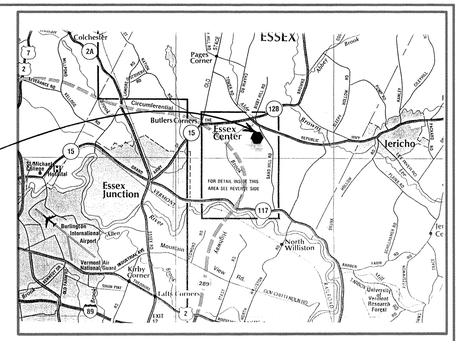
1. BUILDING ELEVATION 100'-0" = SITE ELEVATION 99.50'.

NORTH

SALT SHED

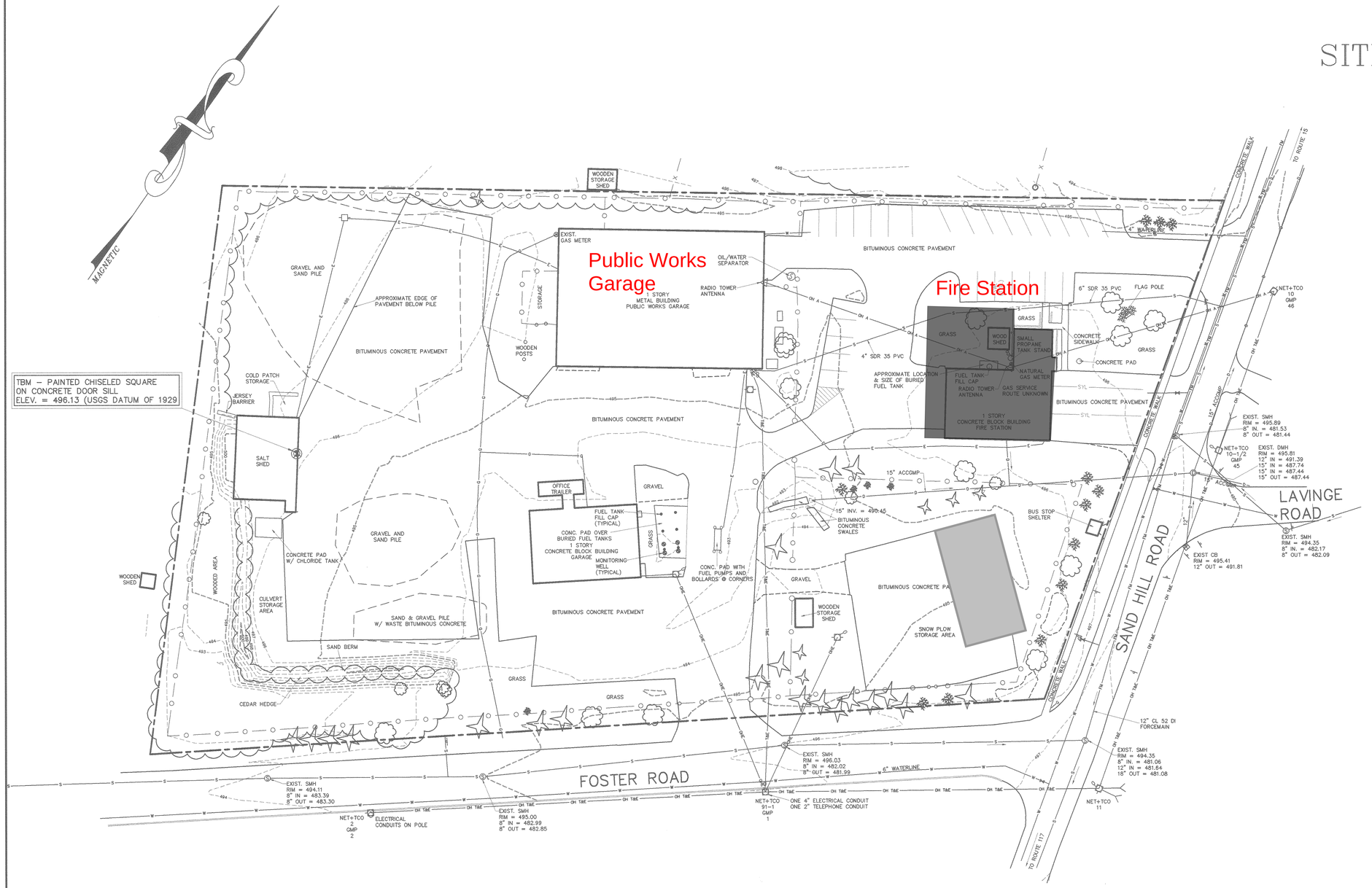
SCOTT + PARTNERS
ARCHITECTURE

TOWN DPW SITE PLAN



SITE

VICINITY MAP



LEGEND

COMBINATION POLE	400	CONTOUR
LIGHT		PROPERTY LINE
BUSH	—W—	WATER LINE
CONIFER TREE	—S—	SEWER LINE
DECIDUOUS TREE	—D—	STORM DRAIN LINE
EDGE OF WOODS	—G—	NATURAL GAS LINE
SEWER MANHOLE	—T—	UNDER GROUND TELEPHONE
DRAINAGE MANHOLE	—E—	UNDER GROUND ELECTRICAL
CATCH BASIN	—OH E—	OVERHEAD ELECTRICAL
HYDRANT	—OH A—	OVERHEAD ANTENNA LINE
GATE VALVE	—OH T&E—	OVERHEAD TELEPHONE & ELECTRICAL
MONITOR WELL	—O—O—	CHAINLINK FENCE
CLEAN OUT	—X—	WIRE FENCE
SIGN	—SYL—	SINGLE YELLOW LINE
FLAG POLE	—SWL—	SINGLE WHITE LINE

GRAPHIC SCALE

30 0 30 60 120

(IN FEET)

1 inch = 30 ft.

DATE	REVISION	BY

CLIENT

TOWN OF ESSEX
81 MAIN STREET
ESSEX JUNCTION, VERMONT 05452

PROJECT TITLE

TOWN OF ESSEX
PUBLIC WORKS GARAGE
SAND HILL ROAD, ESSEX, VERMONT

STATE OF VERMONT — RICHARD F. HAMLIN — No. 5260 — REGISTERED PROFESSIONAL ENGINEER

DRAWING TITLE

EXISTING CONDITIONS
SITE PLAN

Survey	MRM
Design	---
Drawn	SOL
Checked	TCR
Date	7/27/00

Donald L. Hamlin Consulting Engineers, Inc.
136 Pearl Street
Essex Junction, Vermont

Scale	1" = 30'
Job	00-150
File	7677
Drawing	1 of 1

Fri Jul 28 08:49:55 2000


PUBLIC WORKS
GARAGE
10,000 SF
STORAGE
GARAGE
4,000 SF
HIGHWAY
GARAGE
3,500 SF
STORAGE
GARAGE
2,500 SF
Essex Fire Department
Sand Hill Rd
Lavigne Rd
Foster Rd
Foster Rd
Foster Rd
Foster Rd
Sand Hill Rd
Sand Hill Rd
Essex Electric

Admin Offices
Essex DPW

ESSEX DPW
EXISTING PROGRAM ELEMENTS

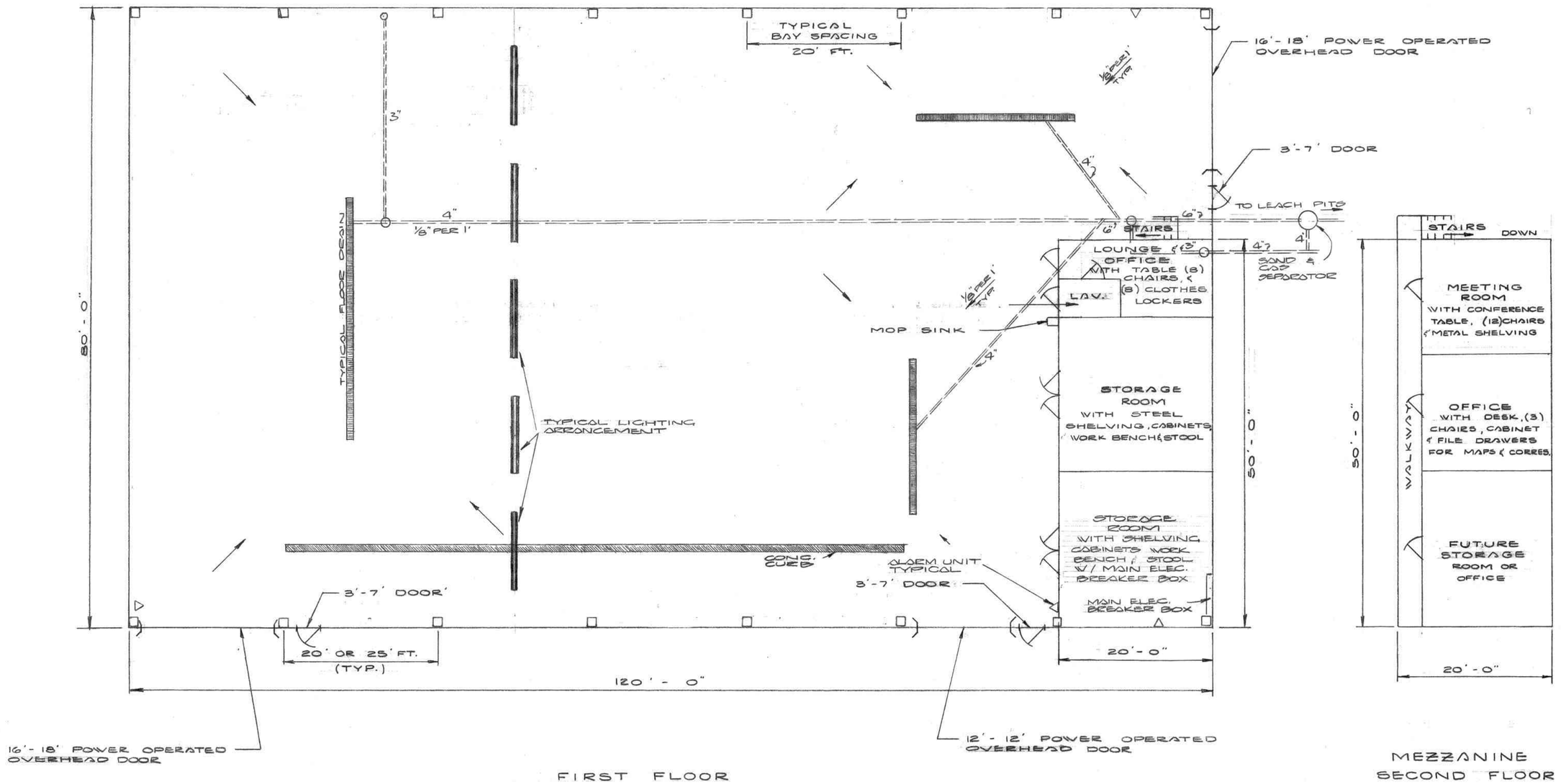
2 PARKING SPACES

ADMIN BUILDING

SCOTT + PARTNERS
ARCHITECTURE

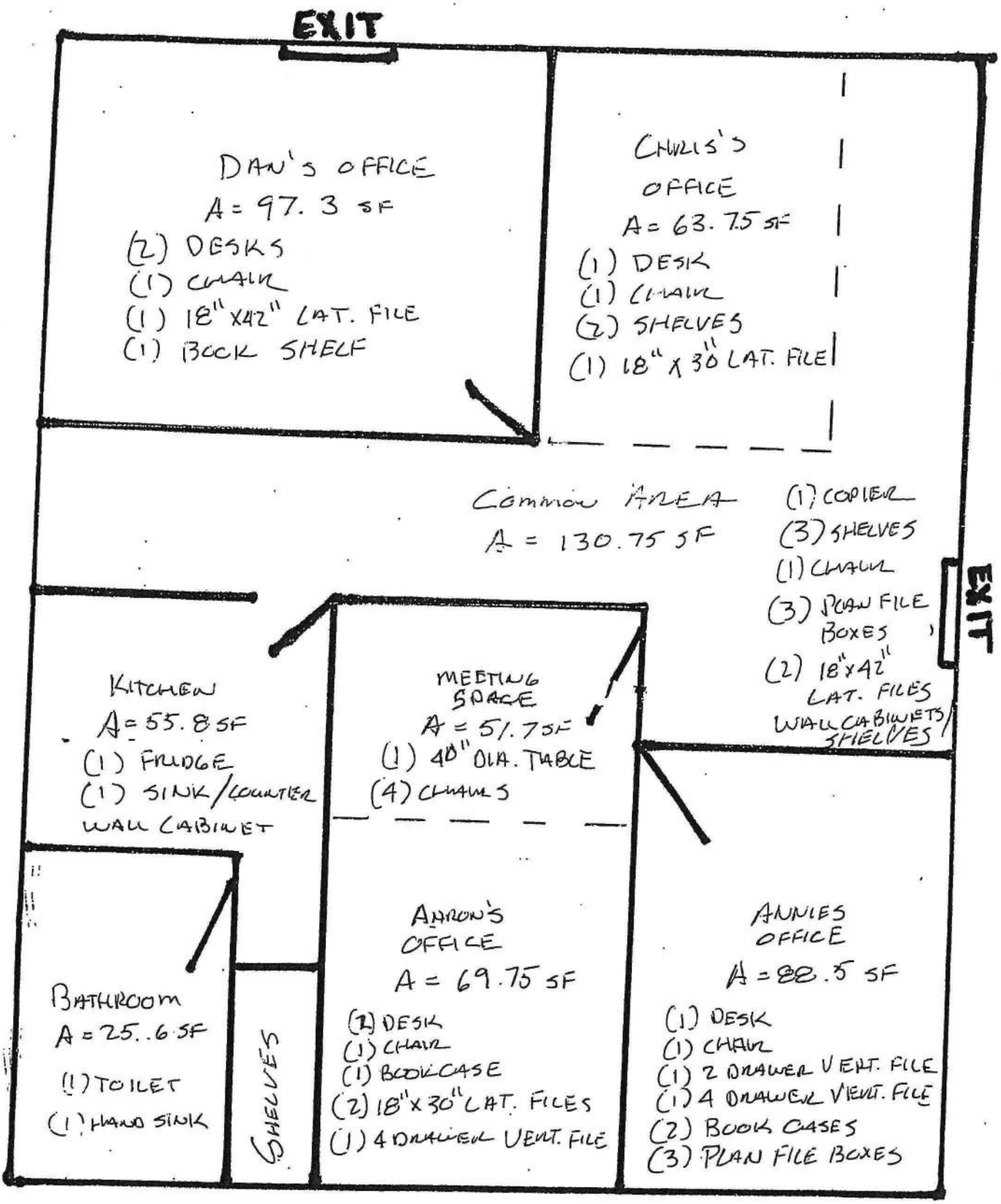
N

100 ft



DPW BUILDING

SCOTT + PARTNERS
ARCHITECTURE

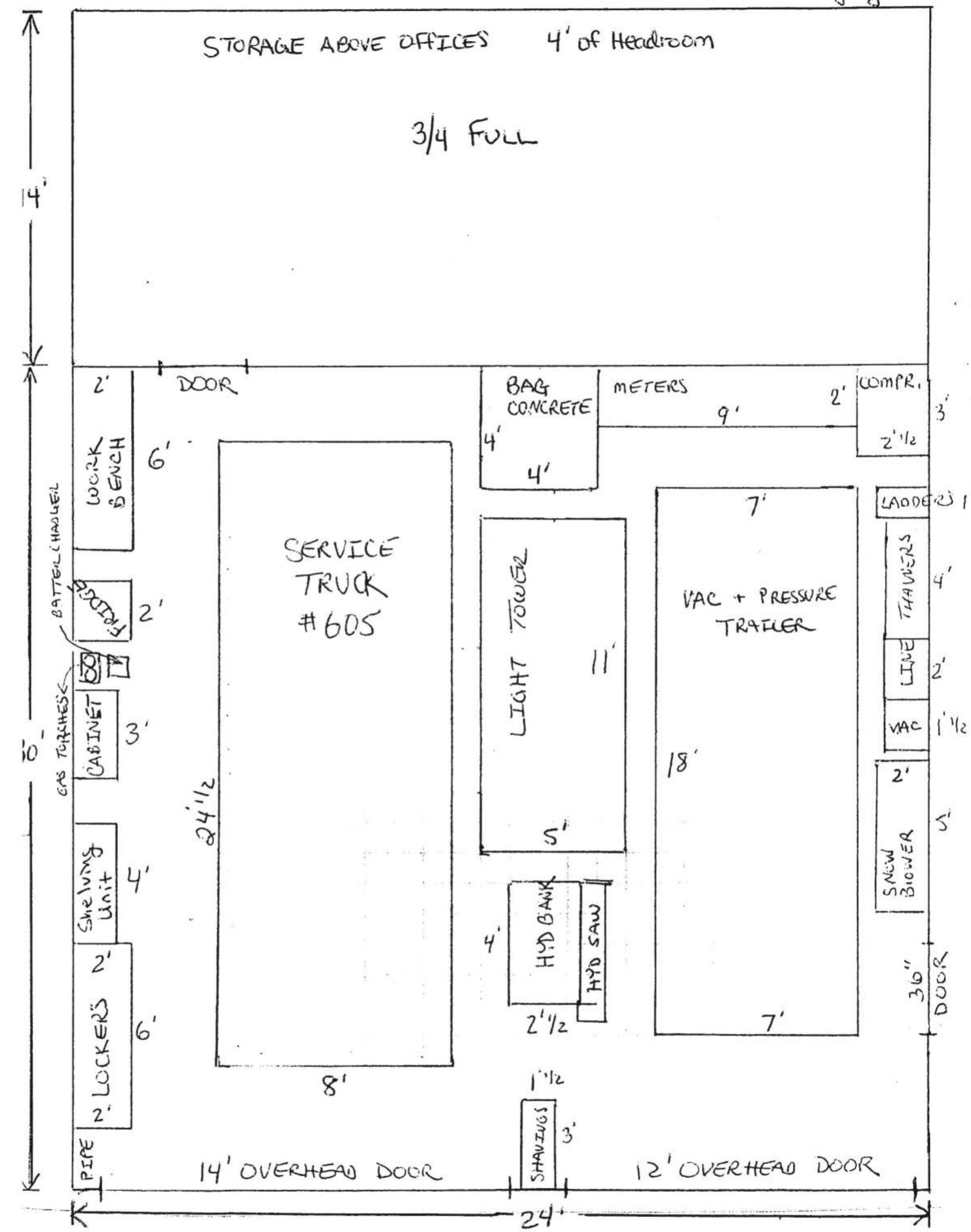


PUBLIC WORKS ADMIN. OFFICE

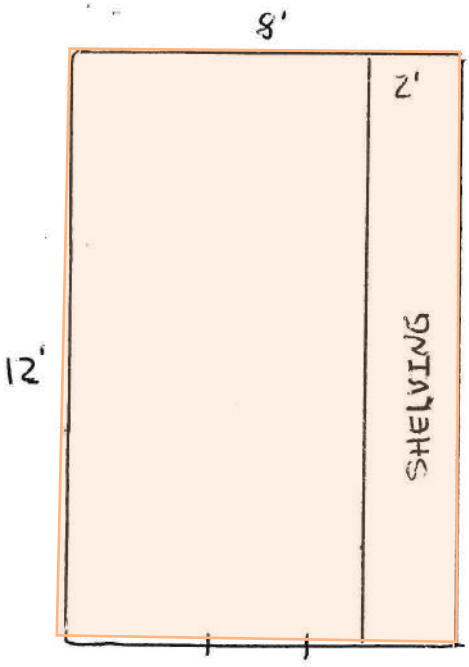
5 JERICHO ROAD

SCOTT + PARTNERS
ARCHITECTURE

Water Sewer
garage room # 2


STORAGE ABOVE OFFICES 4' of Headroom
3/4 FULL
14'
30'
DOOR
2'
WORK BENCH
6'
BATTERY CHARGER
FRIDGE
2'
GAS TORCHES
CABINET
3'
Shelving Unit
4'
2'
LOCKERS
6'
2'
PIPE
SERVICE TRUCK #605
24'1/2
8'
BAG CONCRETE
4'
4'
METERS
9'
2'
COMPR.
3'
2'1/2
LIGHT TOWER
11'
5'
HYD BANK
4'
HYD SAW
2'1/2
VAC + PRESSURE TRAILER
7'
18'
7'
LADDERS 1'
THAWERS
4'
LINE
2'
VAC
1'1/2
2'
SNOW BLOWER
5'
36" DOOR
1'1/2
SHAVINGS
3'
14' OVERHEAD DOOR
12' OVERHEAD DOOR
24'

SCOTT + PARTNERS
ARCHITECTURE



SHED IS FULL OF PARTS, EQUIP, ETC..

SCOTT + PARTNERS
ARCHITECTURE

Memorandum

To: Trustees; Selectboard; Evan Teich, Unified Manager
From: Sarah Macy, Finance Director/Assistant Manager
Re: Introduction to Taxation Plan
Date: September 9, 2019

Sarah Macy

Issue

The issue is to introduce key concepts in a taxation plan that would be included in the plan of merger to bring the community to one tax rate over time.

Discussion

In anticipation of the November 2020 merger vote, one of the critical decision points is deciding how and over what period of time we propose moving from the current taxation structure to a structure that applies one single rate to the entire community.

The current tax rate structure appears as follows. This chart is broken down into the Town Outside the Village (TOV) and the Village, with Town-wide tax rates shown in both columns.

	TOWN OUTSIDE VILLAGE (TOV)	VILLAGE
TOWN GENERAL TAX	0.5067	0.5067
TOV HIGHWAY TAX	0.0110	
TOWN CAPITAL TAX	0.0200	0.0200
TAX AGREEMENTS	0.0019	0.0019
VILLAGE GENERAL TAX		0.3206
VILLAGE ECONOMIC DEV.		0.0100
TOTAL	**0.5396**	**0.8592**

To get to one tax rate, the rates in this chart that only appear in one column must be eliminated or distributed across the entire community. That includes the TOV Highway Tax, the Village Economic Development Tax, and the Village General Tax.

To start the discussion, the following assumptions apply:

1. First merged year is FY2023
2. TOV Highway Tax and the Village Economic Development Tax are both eliminated in the first merged year.
3. The two budgets become one budget with multiple funding sources in FY2023
4. The amount previously raised by the Village General Tax is frozen and integrated incrementally over time into the Town General Fund. This amount, annually, is raised on the Village-only grand list until it is phased out.
5. Village debt remains with the Village only grand list until it is paid in FY2035
6. In all models, regardless of other assumptions, the projected future expenses for debt are actual debt numbers based on current outstanding debt for the Town and Village. These steadily decrease over time and sunset in FY34 for the Town and in FY35 for the Village.

Zero-Growth Model (Merger Only Model)

In an effort to isolate just the effects of merger, the first model to review is the zero-growth or merger only model. By freezing FY20 grand list and budget figures and assuming that there is 0% annual growth in either the grand list or the annual budgets, the incremental redistribution of the Village general fund tax revenue can be separated out to specifically answer the question "how much will my taxes change as a result of merger?".

Using FY20 numbers, in order to eliminate the Village General Tax, $3,242,862 would be incrementally absorbed into the town-wide tax rate. Note: $3,242,862 is less than the total amount raised by the Village General Tax of $3,556,422. Of the total, $313,560 in FY20 number is Village debt which will remain with the Village taxpayers until paid in FY35. The total impact of absorbing that amount into the entire grand list is as follows:

Property Value	Town Outside the Village	Village
$280k	$329	($487)
$350k	$412	($609)
$500k	$588	($871)
$1M	$1,176	($1,741)

This is the amount that will need to be spread out over one or more years. The following table shows the average annual increase/(decrease), for different property values, in the TOV and the Village, assuming transition periods of 3, 5, 7, 10, or 12 years. Twelve years is included because it aligns nicely with the termination of debt payments.

	Town Outside the Village					Village				
Value	3 Years	5 Years	7 Years	10 Years	12 Years	3 Years	5 Years	7 Years	10 Years	12 Years
$280k	$109	$65	$46	$32	$26	($164)	($100)	($72)	($51)	($43)
$350k	$136	$81	$57	$40	$33	($205)	($125)	($90)	($64)	($54)
$500k	$194	$115	$82	$56	$46	($294)	($178)	($129)	($91)	($77)
$1M	$388	$231	$163	$113	$93	($587)	($356)	($257)	($183)	($154)

As you can see, the longer the transition period the less the annual impact is even though the overall impact is the same.

I recommend the boards use this data as a basis for deciding the period of time over which to equalize taxes. Once normal operating assumptions and grand list growth assumptions are layered in, it becomes more difficult to differentiate between what is normal growth and what is due to merger.

Summary of the basic impact of the two primary unknown factors:

1. Grand list growth in the absence of budget growth would decrease these averages. Meaning, the average increase for the TOV would go down and the average decrease for the Village would be more.
2. Budget growth in the absence of grand list growth would increase these averages. Meaning, the average increase for the TOV would go up and the average decrease for the Village would be less.

What other variables are there?

1. The introduction of new revenues that could decrease the reliance on the property tax would free up capacity in the existing property tax rate to absorb more of the transition without increasing taxes.
    a. Local option tax. Instituting a local option tax to replace the operating transfers to capital would eliminate $760k in the Village budget and $394k in the Town budget. The decreased reliance on property taxes would then be used to help ease the transition. Staff does not recommend pursuing a local option tax as part of the merger plan, but hopes the boards will bear it in mind for a separate initiative to consider.
2. Examine existing non-tax revenues such as fees for services – are there areas that need revision? I expect this would not make a noticeable difference as fees for services are a small part of the revenue budget.
3. Reduce expenditures or keep budget increases to a bare minimum. There is a certain budget increase that can be expected each year as a result of contractual obligations, the cost of winter road materials, the cost of paving, and the cost of utilities.

Summary: Whether the process is short (3-5 years) or more gradual (7-12 years), the Town and Village coming together means the two different levels of taxation meet somewhere in the middle. This requires the lower of the two rates to rise as the higher of the two rates falls. A decision about the period of time over which to spread this change is an important one, but a decision doesn't change the total impact, it just makes it either steeper or more gradual.

Cost
No cost at this point

Recommendation
No recommendation at this point, for informational and discussion purposes.

Taxation Plan Introduction

Budget Overview

Town Budget

Town Budget	FY20
Total Expenses	$14,830,649
Non-Tax Revenues	$1,280,474
Property Tax Revenues	$13,550,175
Grand List	$26,415,303

Village Budget

Village Budget	FY20
Total Expenses	$5,164,913
Non-Tax Revenues	$1,608,491
Property Tax Revenues	$3,556,422
Grand List	$11,094,478

Tax Rates

	TOWN OUTSIDE VILLAGE (TOV)	VILLAGE	DOLLARS RAISED	NOTES
TOWN GENERAL TAX	0.5067	0.5067	$13,384,758	Funds Town General Fund
TOV HIGHWAY TAX	0.0110		$168,092	Funds Town General Fund
TOWN CAPITAL TAX	0.0200	0.0200	$528,306	Funds Town Capital Fund
TAX AGREEMENTS	0.0019	0.0019	$50,189	Transferred to State for Education
VILLAGE GENERAL TAX		0.3206	$3,556,890	Funds Village General Fund
VILLAGE ECONOMIC DEV		0.0100	$110,945	Funds Village Economic Development Fund
TOTAL	0.5396	0.8592		

Tax Rates, continued

	TOWN OUTSIDE VILLAGE (TOV)	VILLAGE	DOLLARS RAISED	NOTES
TOWN GENERAL TAX	0.5067	0.5067	$13,384,758	Funds Town General Fund
~~TOV HIGHWAY TAX~~	~~0.0110~~		~~$168,092~~	~~Funds Town General Fund~~
TOWN CAPITAL TAX	0.0200	0.0200	$528,306	Funds Town Capital Fund
TAX AGREEMENTS	0.0019	0.0019	$50,189	Transferred to State for Education
VILLAGE GENERAL TAX		0.3206	$3,556,890	Funds Village General Fund
~~VILLAGE ECONOMIC DEV~~		~~0.0100~~	~~$110,945~~	~~Funds Village Economic Development Fund~~

Zero Growth Model

- Isolates the effects of merger separate from normal growth projections
- Assumes Grand List remains at FY20 level
- Assumes all Expenses except debt remain at FY20 levels
- Debt expenditures are actual
  - Last Town debt payment FY34
  - Last Village debt payment FY35

Demonstration

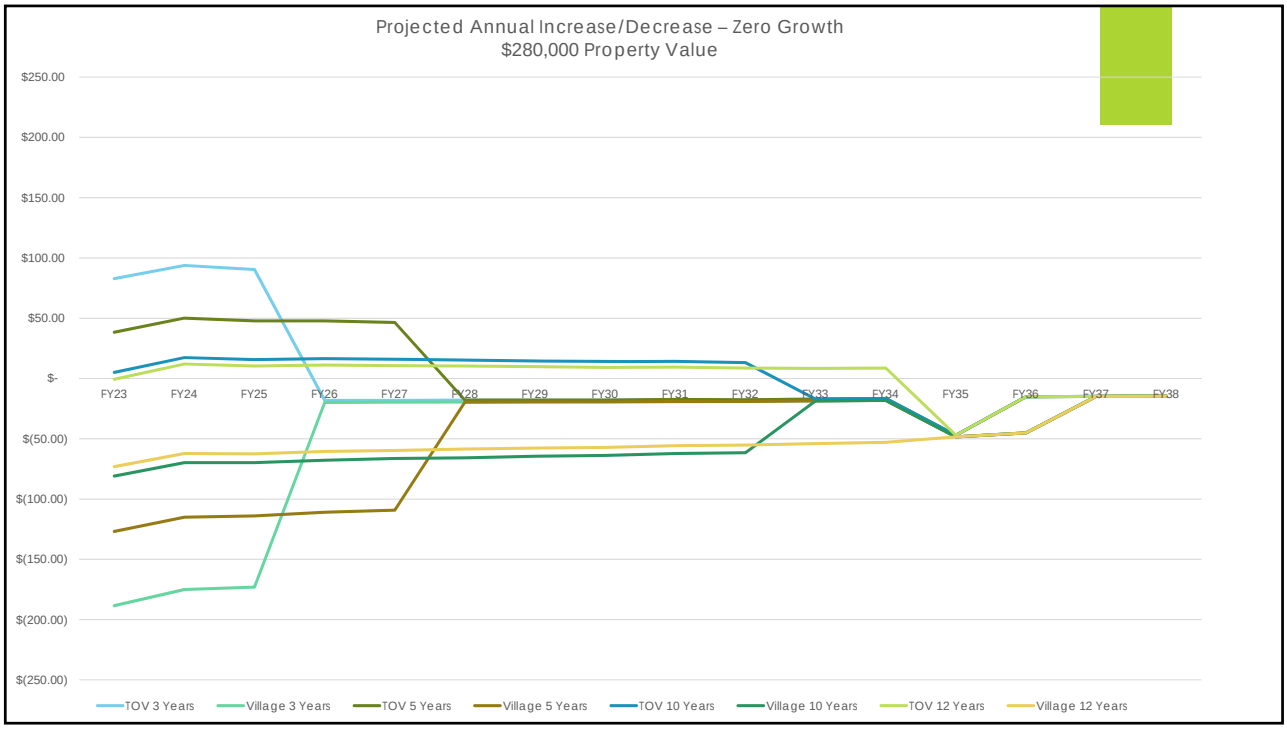
Zero Growth Model
Identifying the Gap

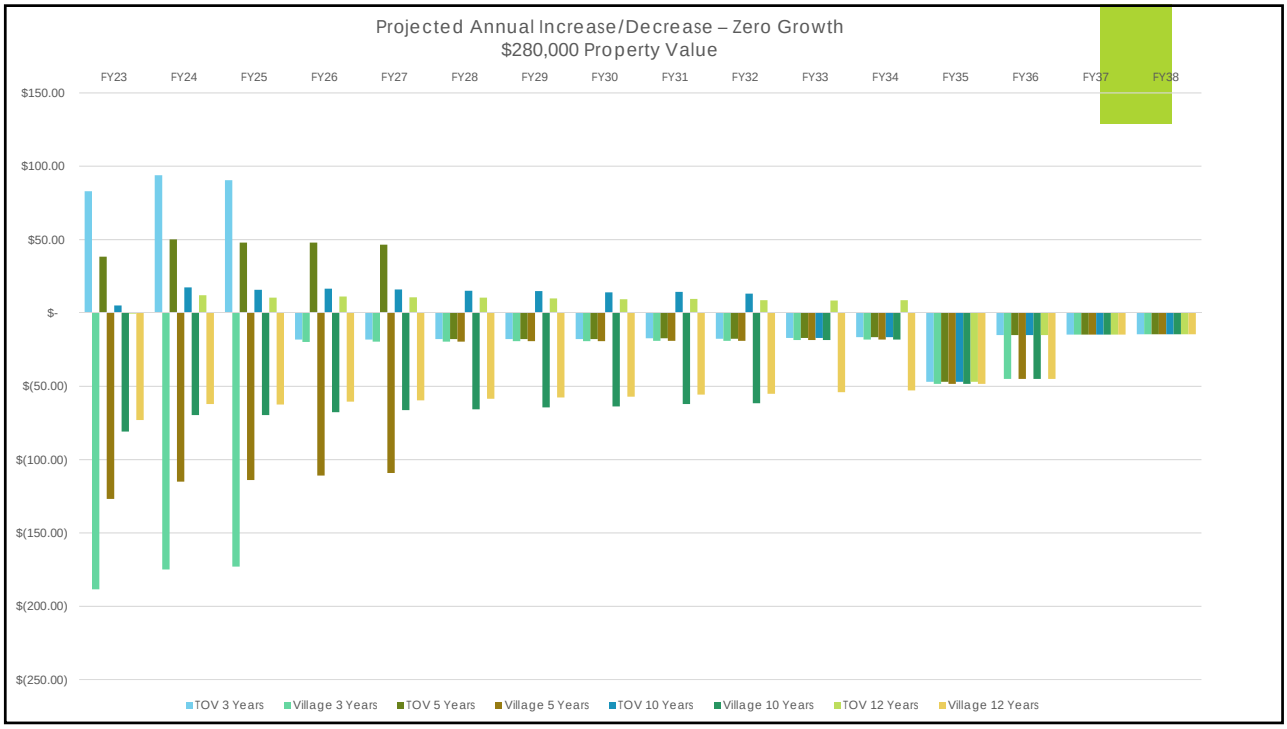
What is the total impact of taking the amount raised by the Village General tax and spreading it over the entire grand list?

Property Value	Town Outside the Village	Village
$280k	$329	($487)
$350k	$412	($609)
$500k	$588	($871)
$1M	$1,176	($1,741)

Zero Growth Model
Average Annual Increase/(Decrease)

	Town Outside the Village					Village				
Value	3 Years	5 Years	7 Years	10 Years	12 Years	3 Years	5 Years	7 Years	10 Years	12 Years
$280k	$109	$65	$46	$32	$26	($164)	($100)	($72)	($51)	($43)
$350k	$136	$81	$57	$40	$33	($205)	($125)	($90)	($64)	($54)
$500k	$194	$115	$82	$56	$46	($294)	($178)	($129)	($91)	($77)
$1M	$388	$231	$163	$113	$93	($587)	($356)	($257)	($183)	($154)


Projected Annual Increase/Decrease – Zero Growth
$280,000 Property Value
$250.00
$200.00
$150.00
$100.00
$50.00
$-
$(50.00)
$(100.00)
$(150.00)
$(200.00)
$(250.00)
FY23
FY24
FY25
FY26
FY27
FY28
FY29
FY30
FY31
FY32
FY33
FY34
FY35
FY36
FY37
FY38
TOV 3 Years
Village 3 Years
TOV 5 Years
Village 5 Years
TOV 10 Years
Village 10 Years
TOV 12 Years
Village 12 Years

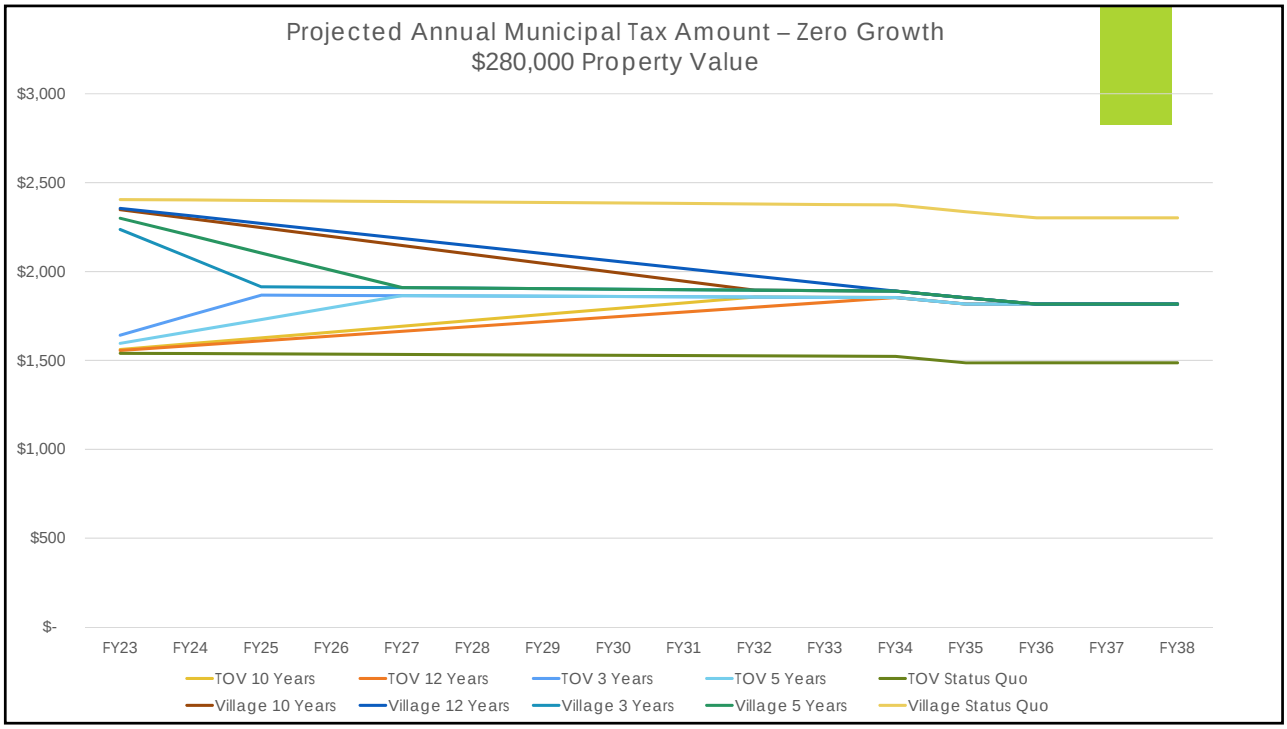

Projected Annual Increase/Decrease – Zero Growth
$280,000 Property Value
FY23
FY24
FY25
FY26
FY27
FY28
FY29
FY30
FY31
FY32
FY33
FY34
FY35
FY36
FY37
FY38
$150.00
$100.00
$50.00
$-
$(50.00)
$(100.00)
$(150.00)
$(200.00)
$(250.00)
TOV 3 Years
Village 3 Years
TOV 5 Years
Village 5 Years
TOV 10 Years
Village 10 Years
TOV 12 Years
Village 12 Years

Zero Growth Model
Average Annual Tax Amount - TOV

	Status Quo – Zero Growth	Merger – Zero Growth				
Value	Average Annual Amount	3 Years	5 Years	7 Years	10 Years	12 Years
$280k	$1,535	$1,755	$1,730	$1,719	$1,709	$1,704
$350k	$1,919	$2,193	$2,162	$2,170	$2,136	$2,131
$500k	$2,741	$3,133	$3,089	$3,069	$3,052	$3,044
$1M	$5,482	$6,266	$6,178	$6,138	$6,103	$6,087

Zero Growth Model
Average Annual Tax Amount - Village

	Status Quo – Zero Growth	Merger – Zero Growth				
Value	Average Annual Amount	3 Years	5 Years	7 Years	10 Years	12 Years
$280k	$2,396	$2,076	$2,105	$2,115	$2,121	$2,123
$350k	$2,995	$2,595	$2,631	$2,644	$2,652	$2,653
$500k	$4,279	$3,707	$3,758	$3,778	$3,788	$3,790
$1M	$8,558	$7,413	$7,516	$7,555	$7,577	$7,581


Projected Annual Municipal Tax Amount – Zero Growth
$280,000 Property Value
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$-
FY23
FY24
FY25
FY26
FY27
FY28
FY29
FY30
FY31
FY32
FY33
FY34
FY35
FY36
FY37
FY38
TOV 10 Years
TOV 12 Years
TOV 3 Years
TOV 5 Years
TOV Status Quo
Village 10 Years
Village 12 Years
Village 3 Years
Village 5 Years
Village Status Quo

Memorandum

To: Board of Trustees; Selectboard; Evan Teich, Unified Manager
Cc: Governance Subcommittee; Ann Janda, Project Manager
From: Greg Duggan, Deputy Manager GSD
Re: Update from Governance Subcommittee
Date: September 6, 2019

Issue

The issue is to update the Trustees and Selectboard on work being done by the Governance Subcommittee.

Discussion

The Governance Subcommittee met on Sept. 5 to review the first draft of a quantitative survey about potential governance change. The survey provides information about the potential change, and asks questions about opinions regarding merger, representation, voting, taxation, development, and municipal services.

The subcommittee meets again on Sept. 12 to review the second draft of the quantitative survey, and will meet on Sept. 19 if necessary to finalize the survey. The survey will go live later in September.

KSV, the firm hired to do market research about potential governance change in Essex, will attend the joint Trustee and Selectboard meeting on Oct. 29 to present the results of the survey.

Cost

N/a

Recommendation

This memo is for informational and discussion purposes.

VILLAGE OF ESSEX JUNCTION TRUSTEE
TOWN OF ESSEX SELECTBOARD
DRAFT SPECIAL MEETING MINUTES
August 27, 2019

SELECTBOARD: Elaine Haney, Chair; Max Levy, Vice Chair; Patrick Murray, Clerk; Andrew Watts; Annie Cooper;

TRUSTEES: Andrew Brown, Chair; George Tyler, Vice Chair; Raj Chawla; Amber Thibeault; Dan Kerin;

ADMINISTRATION: Evan Teich, Unified Manager; Sarah Macy, Finance Director/Assistant Manager; James Jutras, Water Quality Superintendent.

OTHERS PRESENT: Diane Clemens, Claudine Safar, Kristen Shamis, Margaret Smith, Ken Signorello.

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE TO THE FLAG

Andrew Brown called the Village of Essex Junction Trustees back to order from their recess, and Elaine Haney called the Town of Essex Selectboard to order. They entered into the Special Joint Meeting of the Village of Essex Trustees and the Town of Essex Selectboard at 7:17pm.

2. AGENDA ADDITIONS/CHANGES

There were no agenda additions or changes at this time.

3. AGENDA APPROVAL

As no changes were proposed for the agenda, approval was not needed.

4. PUBLIC TO BE HEARD

a. Comments from public on items not on agenda

5. BUSINESS ITEMS

a. Approval of control panel replacement for West Street and Susie Wilson Road pump stations—Jim Jutras

Jim Jutras, Water Quality Superintendent, stated that he is requesting permission of both boards simultaneously to waive the purchasing policy bid requirements and proceed with a sole source contract to replace the control panels for the Susie Wilson Road and West Street pump stations. He noted that the current pumps are from the 1960s and have been retrofitted a number of times, and as such they require an electrician that is familiar with these pumps to perform the installation of the new control panels. He added that both Boards need to approve this waiver because the funds will come from both the Town and Village.

Mr. Levy asked how the new control panels will be designed to mitigate corrosion from salt spray, since that was one of the drivers of deterioration of current equipment. Mr. Jutras replied that the units will be set further back and on pedestals to increase air flow, and that they will be made of stainless steel and will decrease moisture and condensation around the unit.

Mr. Levy asked what would happen if the current control panels fail. Mr. Jutras replied that the Susie Wilson station could store excess flow for around 3-4 hours, and that the West Street

relies on a generator and has very little storage capacity. He also stated that the control system can be automatically shut down to prevent overflows.

Ms. Haney asked if the current proposed electrician (Pratt and Smith) would be used in future for more upgrades or if another electrician could be used. Mr. Jutras replied that improvements in design and documentation of pump stations going forward would mitigate the need for this type of request in future.

GEORGE TYLER made a motion, and DAN KERIN seconded, that the Trustees waive the bid process and allow staff to proceed with purchase and installation of the Susie Wilson Road and West Street pump station custom control panels with Pratt and Smith Electric. The motion passed 5-0.

ANDY WATTS made a motion, and MAX LEVY seconded, that the Selectboard waive the bid process and allow staff to proceed with the purchase and installation of the Susie Wilson Road and West Street pump station custom control panels with Pratt and Smith Electric. The motion passed 5-0.

b. Update from Governance Subcommittee

George Tyler provided an update from the Governance Subcommittee on the results from the focus groups and listening sessions conducted by KSV marketing consultants. He noted that the tone from the six sessions was generally positive about the merger and concept, but that there were some doubts, concerns, and questions, but not much negativity. He highlighted the following key findings:

- Participants asked about timing and why the merger conversation is occurring now, since a previous merger attempt was rejected in 2007.
- Participants emphasized that the Town and Village governments should be unbiased and fact-based when discussing the merger, not promotional.
- Participants generally felt positive about phasing in tax increases, but uncertain about how that would be done.
- Participants felt strongly that maintaining quality of services is crucial and that this should be emphasized when communicating about the merger.
- Participants showed interest in exploring the possibility of a mayoral form of government.

Mr. Levy added that participants were unclear about the status quo and what it is currently, and that this should be clarified at a high level in communications.

Mr. Chawla noted that representation was a large theme in the sessions, and that there is a consistent desire for some form of board representation for both the Town and Village residents. Residents are willing to accept tax increases as long as they are accompanied by representation.

Ms. Haney noted that it seemed that a tax increase would need to be phased in gradually, but was surprised that the suggested time period was 3-5 years and not 7-10. She also noted that she was struck by the statement that though Town Outside the Village residents had a lower tax rate, they still have high costs (including septic systems and water lines, for example), which is important for Town and Village residents to keep in mind.

Mr. Tyler noted that the final phase of this initiative will be a quantitative survey, the structure of which will build from the information gathered in the qualitative survey and focus groups. The

Subcommittee members will each send individual questions for this survey, and KSV will put together a draft survey to review and revise on September 5th. Meetings have also been tentatively scheduled for September 12th and 19th, in case they are needed. The Subcommittee anticipates that results from the survey will be available in late October.

Ms. Haney asked if the survey would have the same statistical significance requirements as the first survey? Mr. Tyler replied that he thinks so, yes. He noted that the response rate to the first survey was very high and that he is hoping this survey has similar response rates.

Ms. Haney also asked both boards about the utility of the survey and focus group activities conducted by KSV. Mr. Kerin noted that having an outside entity produce and field an unbiased, factual survey is extremely valuable, and is helping to educate the public as well as supply information to the Town and Village. Ms. Cooper noted that she had hoped for a higher volume of participants, but felt that broad representation in the survey and groups has been achieved.

Mr. Signorello cautioned the Boards about developing policy through surveys, because surveys can be misinterpreted. He also noted that there is no public notice for a survey (unlike for a vote), and that there are not restrictions on who can take the survey. He advised the Boards to consider all information within the survey and groups when making decisions around the merger topic.

c. Approve elevator speech about potential merger

Mr. Levy walked through the proposed elevator speech about a potential merger, noting that the Subcommittee on Governance drafted the language in an attempt to be succinct and unbiased. The following changes were proposed by the Trustees and Selectboard members:

- In the last sentence of the first paragraph, strike “the” from “overcome the challenges”
- Strike the second sentence of the second paragraph and replace with the following: “We’re relying on residents’ feedback to help us develop the best models for representation and for taxing everyone equitably for our municipal services.”

DAN KERIN made a motion, and RAJ CHAWLA seconded, that the Board of Trustees approve the elevator speech about a potential merger about the Town of Essex and Village of Essex Junction with the proposed edits.

Public comment: Mr. Signorello noted that an elevator pitch has three parts (problem and benefits of solution, differentiator, and an ask for action). He asks that the Boards consider the basics of an elevator pitch before approving this language.

Mr. Kerin responded that the above proposed language has been termed an elevator speech as a matter of semantics, but is simply a method to solicit feedback from the public, and does not retract his motion.

The motion passed 5-0.

PATRICK MURRAY made a motion, and ANNIE COOPER seconded, that the Selectboard approve the elevator speech about a potential merger about the Town of Essex and Village of Essex Junction with the proposed edits. The motion passed 5-0.

d. Approve revised joint meeting schedule—Sarah Macy

Sarah Macy walked through the discussion of revising the joint meeting schedule. She stated that the schedule of meetings had been changed in April from two meetings each per month for the Trustees and Selectboard and one joint meeting every other month, to appending a joint meeting to one of each individual Board's meetings (the first Selectboard meeting and second Trustees meeting of each month). Staff have proposed a revised schedule, recognizing that the current schedule has increased timely decision-making but has increased the number of meetings per month. Staff now propose that joint meetings are held twice monthly with individual Selectboard or Trustee business to be conducted before or after those meetings.

Both Selectboard and Trustee members agreed that fewer meetings would be better and that more joint meetings would make all aware of both Town and Village issues, but expressed concern with having longer meetings, not having enough time devoted to discussing Selectboard-specific or Trustee-specific issues, and blurring jurisdictional lines if both boards are present when a Town-or-Village-specific issue is being considered and voted on.

Both Boards agreed that this discussion item be tabled, and that staff will revise their proposed schedule and bring it to a future Joint Trustees/Selectboard meeting.

6. CONSENT ITEMS

GEORGE TYLER made a motion, and DAN KERIN seconded, that the Trustees approve the consent agenda. The motion passed 5-0.

MAX LEVY made a motion, and ANNIE COOPER seconded, that the Selectboard approve the consent agenda with comments.

a. Approve use of infographic about merger

Mr. Watts noted that the agenda item asks for approval of the use of the infographic, not the content in the infographic. He stated that his concerns regarding key benefits have not yet been satisfied.

The motion passed 4-1, with dissenting vote from Mr. Watts.

7. READING FILE:

a. Board Member Comments

Mr. Teich noted that a staff member is on maternity leave and that they are short-staffed for between 12-13 weeks.

Mr. Chawla noted that Public Works has put up more reflecting beacons and mid-street crosswalks at key pedestrian traffic points, and expressed his appreciation of this.

Mr. Watts asked for clarification regarding the merger infographic. He stated he had been told that the infographic would be used at KSV focus sessions, and that he had told members of the public that it would be used at some and not at other sessions. Mr. Teich clarified that the infographic was not use for any of the sessions, adding that it had not been available to use at the first session and KSV had omitted it from other sessions to be consistent.

Mr. Murray noted that the 2019-2020 school season will begin on August 28, and that there will be increased bus traffic and activity in the Village, and that residents be aware of this increase across neighborhoods.

b. Water quality impacts at Indian Brook Reservoir -
c. Memo from Greg Duggan and Tammy Getchell re: Update on changes at 2 Lincoln Street office
d. Email and attachments from Delia Makhetha re: Colchester Exit 16 DDI Project

8. EXECUTIVE SESSION:
No Executive Session was required or held.

9. ADJOURN:
MAX LEVY made a motion, and PATRICK MURRAY seconded, to adjourn the Selectboard meeting. The motion passed 5-0 at 8:52pm.

GEORGE TYLER made a motion, and DAN KERIN seconded, to adjourn the Trustee meeting. The motion passed 5-0 at 8:52pm.

Respectfully Submitted,
Amy Coonradt
Recording Secretary

Approved this_____day of_____, 2019

(see minutes of this day for corrections, if any)

Gregory Duggan

From: Daniel Richardson <drichardson@tgrvt.com>
Sent: Thursday, August 29, 2019 8:44 AM
To: Ann Janda
Cc: Evan Teich; Gregory Duggan
Subject: RE: FW: Drafting Charter Language

Dear Ann, Evan, and Greg,

Here are the definitions that you requested from me regarding different tax options for the merger. (Note the titles of these various districts/systems are my own as they do not necessarily have formal names. The titles are just a way of describing their different functions and to create a nomenclature that allows us to talk about them without confusing the concepts).

1. There is a Charter-Based Tax Rate System. This is a transitional provision that would be included in the charter proposal and would eventually be approved by the legislature as part of the merger. It would allow for different tax rates based on the prior municipal status and designed to eventually phase out. Whether that is over a 3, 5, 10, or 12-year period would depend on what the Town & Village determined was the most workable.
2. There is a Perpetual Special Tax District. This would be a permanent feature of the merged entity. It would look to cover special services or costs that are attributable to the district (such as a designated downtown district where all of the powerlines are buried or where sidewalk plowing services are in place). This would be created through charter, but it is allowed through statute. The idea is that this is something of a permanent feature within the municipality and likely to remain a need over the foreseeable future.
3. There is also a Village Debt Assessment District. This would be a way to assign the existing Village debt to the Village residents who voted for it without encumbering the remainder of the town. This would be created through charter. It would be exclusive to the Village's pre-merger debt, and it would disappear once that debt was paid off. The idea is that this district could exist at the same time as either of the other districts or on its own to resolve the debt issue.

Concepts:

When talking about taxation, there are a few concepts that you have to keep in mind:

A. Uniformity. Similar properties must be assessed and taxed in a similar manner. If two identical houses are taxed at different rates within a municipality, there is a problem, unless one of the houses is tied to a district.
B. Basis for differentiation. If you are going to create different tax rates, there have to be reasons. One reason is that the district enjoys different levels of service from other districts or is the recipient of benefits that the other areas do not enjoy. Another reason is that the different rates are part of a transition from one tax system to another or reflect historical expenses that were voted or incurred by one area but not the other. Such bases are generally justifiable as exceptions to the uniformity of tax rate rule. There could be others. My initial research did not find other examples, but if there are compelling facts supporting either a permanent or temporary tax district, then such an entity will pass constitutional muster.
C. Goals. Each of the options listed above deals with a particular issue. The first job in determining the right district is to establish where the municipality wants to be or is likely to be in 10 or 15 years. If the differences persist, then something more permanent. If the differences are expected to fade, then a more transitional district.

Please let me know if you need anything else.

Best,

Dan

From: Ann Janda <AJanda@ESSEX.ORG>
Sent: Tuesday, August 27, 2019 10:00 AM
To: Daniel Richardson <drichardson@tgrvt.com>
Cc: Evan Teich <eteich@essex.org>; Gregory Duggan <gduggan@ESSEX.ORG>
Subject: Re: FW: Drafting Charter Language

Dan,

Please send us your write up today if possible. We are being asked to define special tax districts and how they might be used to get to tax equity with merger in public meetings and need to develop a tax plan utilizing the method possible by law. A draft tax plan was delayed while we wait for your answer to this and other questions. I have attached some guidance I received from VLCT MAC while we waited. However, we need the definitive answer from you.

In addition, I need to know how we will draft a merger plan – see my question below. We are also getting questions about this in public meetings.

I will also call your office to reschedule a phone call with you ASAP.

Best,
Ann

MEMORANDUM

TO: Town of Essex Selectboard, Village of Essex Junction Trustees
FROM: Sarah Macy, Finance Director/Assistant Manager
DATE: September 9, 2019
SUBJECT: Joint Board Budget Goals

Issue
The issue is to introduce the topic of establishing Selectboard and Trustees goals for the FY21 budget which will be discussed and decided at the September 24th Joint Meeting

Discussion
Please begin thinking about goals for the FY21 budget. We will discuss at the September 24th joint meeting the board level goals to be incorporated into the upcoming budget season which begins in earnest in October.

To help jump start the conversation, management has identified the following goals for the FY21 budget:

- The overarching theme: Do No Harm – all budget decisions should be made through the lens of (1) is this beneficial regardless of the outcome of the November 2020 vote and (2) do not further exacerbate the discrepancy between the Town and Village tax rates.
- No new full time positions will be approved.
- Any new taxes or programs will be placed in the Town budget not the Village budget.
- Departmental goal – each department below 2.5%
- Integration studies and work – consultant funds for aligning and integrating personnel policies
- IT and Security upgrade – capital funds
- Training and morale
    - Move the Village employee recognition party into the Town budget for an all staff recognition party
    - Organizational training – Microsoft office, safety, etc.
- Review policies that have a monetary impact
    - Fee structure discussions: dog licenses, community development fees
- Cemetery: stipend for sexton, review maintenance budget
- Alignment and integration of Public Works – org chart, salary alignments
- Alignment of Libraries – pay and titles
- Alignment of Recreation – pay and titles
- Building Maintenance
    - Analyze the 20 hour, potential need for 28 hours
    - Continue to work on getting a handle on building maintenance and funding
    - Incorporate results of the space needs study
- Funding from Town budget to Village budget for Recreation, approx. $165,000

- Future strategic advance/board retreat/workshop events
- Capital – how do we approach capital together?
- Can we equalize the way we budget for paving? A certain $ per mile of road type or some other similar input variable that we can both use
- Community Justice Center funding

Cost
No cost, discussion

Recommendation
Please consider priorities and goals for the FY21 budget for discussion at the September 24, 2019 joint meeting.