Tilton-Northfield Fire District Design Build Phase I Space Needs Study

149 Park Street Northfield, NH 03276 & 45 Sanborn Road Tilton, NH 03276

September 8, 2023

Prepared for

Fire Chief Michael W. Sitar Jr.

12 Center Street Tilton, NH 03276



Bolebing construction

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Comm. No. 222-0090

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1. BACKGROUND

Following a formal RFQ response format that included written proposals and interviews, Loureiro Building Construction was selected as the Design Build contractor for the Tilton Northfield Design Build Services project for the planning and construction of the Tilton-Northfield Fire District (TNFD) Fire Station to service the Town of Northfield and Town of Tilton.

Phase 1 of the Design Build Project was segregated into a five-step process including Program Evaluation, Geotech Survey and Site Evaluation, Space Needs Study, Schematic Design Plans, and Public Outreach. The Step 1 Program Evaluation report was completed on July 10, 2023, with a subsequent revision date of July 11, 2023. The Program Evaluation consisted of reviewing all the existing data, previous studies, existing Geotech reports and provided project program. The function of the program evaluation was to provide a full comprehensive review and understanding of the multitude of information that has been developed over the years. That report served as a summary of the review and high-level summary of the information contained therein.

The second and third steps, the Geotech Survey and Site Evaluation along with the Space Needs Study have been completed simultaneously. The Geotech Survey and Site Evaluation consists of research and evaluation of the two potential sites, 149 Park Street, Northfield, NH 03276 and 45 Sanborn Road, Tilton, NH 03276. The function of the geotechnical report was to provide a full comprehensive review of both pre-selected sites, and a site selection recommendation. The formal site selection will be provided in conjunction with the TNFD, Commissioners and the Building Committee.

This report, the Space Needs Study, consists of two sets of program needs, option A outlines an addition and renovations to the existing station at 149 Park Street, Northfield, NH 03276. Option B outlines a new station to be constructed at 45 Sanborn Road, Tilton, NH 03276, while keeping the existing station at 149 Park Street, Northfield, NH 03276.

Building systems recommendations and final cost analysis are to be completed subsequently as part of steps four and five of this Design Build phase 1.

2. SCOPE

This Space Needs Study consists of providing and analyzing preliminary programs on each of the potential lots, 149 Park Street, Northfield, NH 03276 and 45 Sanborn Road,



Tilton, NH 03276. The programs include detailed special requirements for use/function, with both options,

A walk-through inspection of each of the exiting stations has been conducted to further assess future program needs. The walk-through included a review of the existing Center Street and Park Street stations. The walk-through allowed for data gathering including existing and future equipment, program, and space needs.

This report is based off the review and summation of the existing stations on Park Street and Center Street. Visual site inspections, preliminary program, and drawings provide by Chief Micheal W Sitar, meetings with Chief Sitar and the Firefighters. A recommendation, and a formal site selection will be provided in conjunction with the TNFD, Commissioners and the Building Committee.

3. DOCUMENTS

The following documents were utilized in the preparation of this report:

- Programmatic Needs Table (Appendix A) 2 pages.
- Program Evaluation (July 10, 2023) 12 pages.

4. EXISTING DATA

4.1 Park Street Building Inspection (May 1, 2019)

Team Engineering Building Inspection & Design conducted a visual and accessible structural inspection to the existing single story wood framed structure built in 1986. A formal structural analysis was not completed as part of the scope of the work. The inspection was limited in scope, focusing on the visible and accessible structural elements only. An invasive inspection of hidden elements was not completed at that time.

According to the report, the building has several deficiencies that would need to be addressed prior to any additional work to the building. At the time of this report, the current building code was IBC 2008. Since the completion of the inspection more current building codes have been adapted by the state. On July 1, 2022, HB 1681 was signed into law, which updated the state building codes to reflect the 2018 International Code models. Further analysis will need to be completed to verify the potential for additional deficiencies required to meet the current building code. The following deficiencies were noted in the report.



- The report stated the building had deficiencies with the roof trusses. The current design load on the trusses is 40psf. The code required load at the time of this report should be 75psf.
- There is staining on the interior ceiling and walls that could be a result of the timber structure experiencing excessive moisture. This moisture could compromise its structural integrity over time.
- The building construction is lacking hurricane ties to prevent uplift during a storm.
- The existing floor slab in the apparatus bay has numerous stress load cracks from being undersized for the vehicle weight loads.
- The front wall of the building, with the four large overhead doors, appears to be inadequate to meet the wall to area shear wall ratio requirements.
- There appears to be insufficient structural diagram required to transfer lateral loads from the roof trusses to the walls.

5. PROGRAM

5.1 **Program Preface**

The programmatic space needs study has been conducted by Loureiro Building Construction, in conjunction with Chief Micheal W Sitar Jr and the fire department team. The purpose of this study is to outline programmatic needs for the of Tilton and Northfield, Fire and Emergency Medical Services. Space needs have been separated into two programmatic options, Option A (Addition and Renovation to 149 Park Street, Northfield, NH 03276), and Option B (New Station on, 45 Sanborn Road, Tilton, NH 03276, Park Street Station to Remain). Further decisions will be made on the programmatic options and site selection by the Tilton and Northfield Building Committee.

Programing Option A is located on the existing site, 149 Park Street, Northfield, NH, 03276. This option consists of a major renovation and an addition to the existing Park Street station.

Programing Option B is located at 45 Sanborn Road, Tilton, NH, 03276. This option consists of a newly constructed station on Sanborn Road, while keeping the existing station on Park Street. The newly constructed station would be located adjacent to the Tilton Police Department and will offer full emergency services all at a singular location



While the existing Park Street station will be fitted out to meet the new needs of the department.

Loureiro conducted multiple meetings with the Chief Sitar and the department staff to further understand the space requirements and needs for the future station and the members of the department. On August 17, 2023, Loureiro Building Construction conducted a meeting with Chief Micheal W Sitar Jr, to discuss space and programmatic requirements for both options. On September 5, 2023, Loureiro Building Construction conducted a meeting with Chief Micheal W Sitar Jr, and the fire department staff to discuss future needs of the new station and the members of the department. These meetings aided the preliminary program design, served as a purpose to gather information, data, and feedback from the crew who will be functioning in the space on a daily basis.

5.2 Programing Option A (Addition and Renovation to 149 Park Street, Northfield, NH 03276)

Programing Option A outlines the use of the existing site on Park Street, this option consists of a renovation and addition to the existing Park Street station. This option will also include the closure of the existing Center Street station. This addition will include but not be limited to, apparatus bays, gear storage, EMS storage, tool storage, general storage, decon, kitchen/dining, private day room, wellness center, living quarters for students and firefighters, various office spaces, public lobby area, and a training center.

Based on the existing quantity of equipment in both facilities and discussions with Chief Sitar and the department staff, it has been calculated that 12 total bays will be needed. These bays will accommodate all existing apparatus equipment currently located at the Center Street station and relieve pressure from the overly crowded Park Street station. With the consolidation of two stations, the space needed for storage greatly increases, for gear, EMS equipment, and general storage. As documented in the attached Programmatic Needs Table, these spaces at Park Street have been increased to accommodate multiple pieces of equipment that will no longer be segregated at separate facilities.

The need for an improved hose drying and storage system has been brought to attention by Chief Sitar, and the firefighters. A potential solution mentioned was a hose drying tower attached or detached from the new Park Street station. The function of this tower could be classified as multi-use for, hose drying, hose storage, and fire/EMS training. If the budget and construction costs do not allow for a full hose tower, a potential solution



is the Roto Jet Fire Hose Dryer. This upgrade will allow the crew to dry the fire hoses efficiently and properly after use, compared to the current formula of laying the hoses outside or on the wall. The improved technology will increase the lifespan of the hoses, since they will be properly dried in a safe space, rather than risking mold growth, or ultimately the hoses deteriorating quicker over time.

Findings show with the consolidation of the two stations that the size of the shift crew could range from eight to twelve people. Increases in living spaces for the crew will be required, this will require an increase in the size of the kitchen, dining, wellness, and dayroom spaces. As mentioned in the September 5th meeting, these spaces are some of the most important for the crew, as they spend up to twenty-four hours per day in these spaces. A living quarter will also be added to the addition at Park Street. Currently Central Street station has four career dorms. The proposed addition will continue with four career dorms and add an additional 2 bed student dorm.

Administration area is one of the primary functions of a fire station in the form of offices, and meeting areas. These spaces are critical to the everyday function of the fire station, as mostly all the behind-the-scenes work will happen in these spaces. As mentioned by Chief Sitar and the firefighters in both meetings, these spaces must serve as a semi-private or private function.

The addition will require space for the public visitors, a lobby, and a training area. These spaces will function as a privacy separation for the public and the internal crew members of the fire station. However, this will allow the public to seamlessly visit the station without interruption of the critical functions happening inside the station.

The consolidation, renovation, and addition to creating one centralized station on Park Street has uncovered some hardships. Per the existing building inspection conducted by "Team Engineering Building Inspection & Design" (May 1, 2019), above in (Section 4.1) the existing structure on Park Street does not meet today's standards for design load. These listed factors potentially will cause further issues, throughout the renovation and addition process, as these issues will have to be addressed at this time.

Stemming from the above-listed structural issues on the existing structure on Park Street, the idea of displacement during renovation has been discussed. Displacement of the equipment and operation at Park Street will cause costs for temporary storge and relocation while construction is taking place. On the extreme end, there is implications that a major renovation, or complete demolition will be required with this option. If the



data states that the cost of major renovations on the existing station will exceed the cost of demolition and new construction, that route will be suggested.

5.3 Programing Option B (New Station on, 45 Sanborn Road, Tilton, NH 03276, Park Street Station to Remain)

Programing Option B outlines the use of the site located at 45 Sanborn Road, this option consists of a newly constructed station on Sanborn Road, while keeping the existing station located at Park Street. The existing Park Street station will be repurposed and fitted out for the new needs of the station. This option also includes the closure of the existing Center Street station. This new station will include but not be limited to, apparatus bays, gear storage, EMS storage, general storage, deacon, kitchen/dining, private day room, wellness center, living quarters for students and firefighters, various office spaces, public lobby area, and a training center.

Based on the existing quantity of equipment in both existing facilities, it has been calculated that 12 total bays will be needed. This option will provide 8 new bays located at the Sanborn Road location, while keeping the 4 existing bays at the Park Street location. These new bays will accommodate all existing apparatus equipment currently located at the Center Street station and relieve pressure from the overly crowded existing Park Street station. With the closure of Central Street and the overcrowding of Park Street, the space needed for storage greatly increases with the construction of a new station. Greater storage accommodation will be required for gear, EMS equipment, and general storage. SCBA equipment will remain as is in the Park Street station. The new station will also require the adequate space needed for a proper workshop; ancillary space will be designed on the two end bays to accommodate the needs of the crew. Park Street Station will still function similarly; however, the station will be outfitted to the new needs of the department.

The need for an improved hose drying and storage system has been brought to attention by Chief Sitar, and the firefighters. If the budget and construction costs allow, a potential solution is the Roto Jet Fire Hose Dryer. This upgrade will allow the crew to dry the fire hoses efficiently and properly after use, compared to the current formula of laying the hoses outside or on the wall. The improved technology will increase the lifespan of the hoses, since they will be properly dried in a safe space, rather than risking mold growth, or ultimately the hoses deteriorating quicker over time.



Data shows with the closure of the Central Street Station, the size of the shift crew could range from eight to twelve people throughout each shift. Implications show that increases in living spaces for the crew will be required, this will require an increase in kitchen, dining, wellness, and dayroom spaces. As mentioned in the September 5th meeting, these spaces are some of the most important for the crew, as they spend an average of twenty-four hours at a time in these spaces. Living quarters will also be added to the new station located at Sanborn Road, currently the Central Street station has four career dorms. The proposed new station will continue with four career dorms and add an additional 2 bed student dorm.

Administration area is one of the primary functions of a fire station in the form of offices, dispatch, and meeting areas. The list of administration spaces will function out of the newly constructed station located on Sanborn Road, they will serve for the Sanborn Road and Park Street stations. These spaces are critical to the everyday function of the fire station, as mostly all the behind-the-scenes work will happen in these spaces. As mentioned by Chief Sitar and the firefighters in both meetings, these spaces must serve as a semi-private or private function.

The newly constructed station will require space for public visitors, a lobby, and a training area. Considering special constraints inside of this option, the training will not have a standalone space, and training practices will take place inside of the conference room. The listed public spaces will function out of the newly constructed station located on Sanborn Road, they will serve for the Sanborn Road and Park Street stations. These spaces will function as a privacy separation for the public and the internal crew members of the fire station. However, this will allow the public to seamlessly visit the station without interruption of the critical functions happening inside the station.

Construction of a new station on Sanborn Road, and the use of the existing station on Park Street has uncovered some ambiguous areas. In this option, two stations would still be active, and this will cause some separation between the department members. However, with the construction of the new station, this will better fit the needs of the department in the future. Flexibility is created in this option now that the existing Park Street station can be fit out for the current and future needs of the department.



6. COST ANALYSIS

Loureiro Building Construction has utilized a combination of in house estimating, historical cost data and purchased construction cost tracking software to provide a very high-level cost analysis of the programs for each of the program options. While these costs have been compiled utilizing current cost tracking, it shall be noted that these are very high-level budget costs and are based on a very wide range of project data and available information. Schematic design information is not currently available. These costs are to be utilized only for program analysis's sake and are not indicative of the final costs. The potential exists that the actual costs for this project could vary greatly from this SF analysis.

The following are building only costs. Sitework and infrastructure costs have been included in the Geotech Survey and Site Evaluation Report.

Sanborn Road Building Costs									
Location Sqft Cost per Sqft (\$) Total									
		\$							
Sanborn Road Building	14714	351	\$	5,164,614.00					
Park Street Existing Building to Remain	4800	\$-	\$	-					
Total			\$	5,164,614.00					

Park Street Addition Building Costs								
Location	Sqft	Cost per Sqft (\$)	Total					
		\$						
Park Street Building Addition	15993	351	\$	5,613,543.00				
		\$						
Park Street Existing Bldg Remediation	4800	11.50	\$	55,200.00				
Park Street Existing Building		\$						
Reconstruction	4800	351	\$	1,684,800.00				
Total			\$	7,353,543.00				

Based on this analysis, the construction costs for the Park Street option are roughly 42% greater than the Sanborn Road Option. While the final construction costs may vary, this analysis shows that due to the scope of work required for each program and the potential additional costs associated with the existing Park Street structure, the most costs advantageous program shall be the Sanborn Road program.

7. **PROGRAMMING RECCOMENDATIONS**



This report, the Space Needs Study, consists of a programing analysis for the addition or new construction of a new fire station for the Tilton and Northfield Fire Department. The programmatic space needs study has been conducted by Loureiro Building Construction, in conjunction with Chief Micheal W Sitar Jr. Option A outlines an addition and renovations to the existing station on, 149 Park Street, Northfield, NH, 03276. Option B outlines a new station to be built at 45 Sanborn Road, Tilton, NH, 03276, while keeping the existing station at 149 Park Street, Northfield, NH 03276. Both options include the closure of the existing Center Street station.

The final decision on programing options and site selection will be made by the Tilton and Northfield Fire Departments and the Building Committee. However, through carful research and evaluation through this Space Needs Study. Loureiro Building Construction suggests the use of Option B, to construct a new station located at 45 Sanborn Road, Tilton, NH, 03276, while keeping the existing station at 149 Park Street, Northfield, NH, 03276.

Loureiro suggests Option B due to following outlying hardships with option A,

- The current design load on the trusses does not meet the current code requirements, and potentially can have structural implications moving forward.
- There is staining on the interior ceiling and walls that could be a result of the timber structure experiencing excessive moisture.
- The existing floor slab in the apparatus bay has numerous stress load cracks from being undersized for the vehicle weight loads.
- The potential risk of major renovation cost
- The potential risk of complete demolition of the existing Park Street station if renovation costs outweigh new construction.
- The potential risk of displacement and or relocation due to major renovations, or total deconstruction of the existing station

8. NEXT STEPS

Upon acceptance of this Geotech Survey and Site Evaluation in conjunction with the Space Needs Study, the next steps of the remaining two will commence. These steps shall be the Schematic Design Plans, and Public Outreach.



8.1 Schematic Design Plans

Once program evaluation, Geotech reports, site selection, space needs study and building systems recommendations have been completed the schematic design step shall commence. The Schematic Design plans (SD) shall be provided based on the selected recommended building site and include new construction or new construction in conjunction with renovation pending the site selection. SD plans shall include:

- Preliminary Design & Floor Plans
- Structural Plans
- Elevations & Sections
- Exterior Elevation Rendering
- Mechanical System Recommendations
- Site Plan

A schematic design review and comment phase shall be provided with the TNFD and building committee. Comments, suggestions, thoughts, and ideas shall be discussed with the team and final revisions shall be implemented into the SD plan set.

8.2 Public Outreach

The public outreach shall be performed consecutively with the Schematic Design phase. Public information and outreach sessions shall be held with each town's community members. These shall function as an information gathering and sharing session to provide the communities with an opportunity to share their thoughts on this TNFD project. This will provide for a broader understanding of the community's thoughts on this project and what each community or demographic may want to include or exclude within the project as it may have a beneficial impact or hardship depending on their needs. Providing this outreach consecutively with the SD phase will allow for implementation of any knowledge gathered during these sessions during the early preliminary design stage and therefore reduce community concern prior to the finalization of the schematic design plans. Providing a schematic design that meets the TNFD needs as well as each community's feedback will allow for a successful project though all its phases.



DATE: 8/31/23													
TNFD SPACE STUDY PROGRAM AND EQUIPMI	ENT LIST									Lo	u	eir	0
										BUILDIN	IG CO	NSTRUCT	ON
DESCRIPTION	Current I	ocation	Equipment	Notes	MEP	Finishes		Addition & Remo	to Park	New Co	nst @ Sanb	orn, Park to rema	ain
	Park St	Center St					SQFT	Park St	size sqft	Sanborn	size sqft	Park St	size sqft
Work Area Apparatus Bays				Bays=18'W X 38'D	Unit Heaters, Radiant Floors, Vehicle Exhaust Extraction w/grabber and rail.		684	12	8208	8	5472	4	Exist
Apparatos bays				14x14 overhead doors Confirm overhead vs side motion folding	Trench drains under apparatuses Pneumatic grabber for apparatuses exhaust systems - not magnetic. Apparatus air is manual disconnect.		004		5200		5472	-	LAST
	1	1	(2) Engine					2		1		1	
	1	1	Tanker					1		1		1	
	1		Ladder					1		1			
	1		Heavy Rescue					1		1			
	1	1	(2) ALS Ambulance Pick-Up Truck	w/plow				2		1		1	
	1	1	ATV (6 wheel w/bed) on trailer	stored on trailer			\vdash	1		1		I	+
	1		Brush Unit			1		1	1	1			
		1	Boat on trailer					1				1	
Ancillary Storage Apparatus Bays	Currently in the	Apparatus bays	Hose Racks (2) 3'D X 10'W each	Adjacent to the last apparatus bays = 3'W X 38'D			114	4	456	4	456	0	Exist
Turnout Gear Storage	Currently in the	Apparatus bays	24 Lockers(required at ach facility) 6 Locker Group= 39"x72.5"	Currently in apparatus bays: No bench es	Controlled Environment w/negative pressure Floor Drains Lighting type to not degrade materials. Occupancy Sensors. Potential radio charging station & numerous power receptacles		13	42	546	24	312	24	Exist
Replacement Turnout Gear Storage	1	1		Spare / un-issued gear shelving and cloths rods	rotentuar rauto charging station & numerous power receptacies		120	1	120	1	120	0	Exist
Decon			Gear Extractor w/waste pump. 3'-8"(door closed)-6'	Small area of storage shelving for decon equipment consumables.	Negative Pressure	washable walls	400	1.25	500	1	400	1	Exist
	(1) each facili shared wit		Long (door open) x 3'4" wide Gear Dryer 5'-3" L X 2'-9"W (10" clearance in back) X 81" Tall (15" of clearance on top) eye wash. 2 to 3 Shower stalls Washer/dryer	Same quantity of showers in both options	(2 to 3)Showers, 6' wide single trough/faucet sink, hand sink, Floor drains. Waste pump for extractor as back up to standard waste due to volume of flow. Extractors have dual cold/hot connections washer/dryer accommodations Eye wash	washable floors							
SCBA Maintenance & Fill	(1) shared w/apparatus bay		SCBA Compressor	Should be in separate room on outside wall Remain at park St. in either scenario	air compressor and SCBA equipment		120	1	120	0	0	1	Exist
Air Compressor Room	(1) each facili shared with a		standard air compressor	Should be in separate room on outside wall.	air compressor feeding apparatus bays and shop space		80	1	80	1	80	1	Exist
EMS Supply Storage	1	1		Access Controlled			120	1.3	156	1	120	1	Exist
Equipment Storage General Storage	l (1) each facili	1 tv. currentlv	Lawn Mower & Snow Blower, spare tires, ladder	Spare Equipment, metal shelving/racking 8x8 roll up door, vented.		+	120 240	1.3	156 240	1	120 240	1	Exist Exist
-	shared w		storage etc										
Shop / Equipment Repair	(1) each facili shared with a		Work Bench	Shelving - Tool Storage	Compressed air numerous power receptacles bench grinder etc.		200	1.3	260	1	200		Exist
Lavatory(for apparatus bay)				Single Occupant Toilet Room	Toilet and Sink toilet exhaust		64	1	64	1	64		Exist
Hose Tower				Only at park street if single faculty Dry Hose/ Technical & Rescue Training 14'WX18'LX42'H possibility to utilize driers rather than hose tower but the tower is preferred due to its ability to be used as training.	passive or active vent		252	1	252	0	0		Exist
Mezzanine/Mechanical				Over Storage Areas, stair access, open to apparatus bays.				1	yes	1	yes		Exist
Sub Total									11158		7584		
Living Area													Exist
Kitchen, Dinning, Day Room			Commercial Kitchen Appliances (6 burner stove, industrial fridge, microwave, dishwasher. Table/chairs for 8-12 people. TV and Recliners for seating area (8 min)	stainless counters	standard stove exhaust		884	1	884	1	884		Exist
Wellness			Gym Equipment: Flat Bench 5'x2', Weight Rack 2'x3', Cable Machine 5'x4', Pullup/Dip Machine 4'x4', Bike 2'x4' Stair Master 2'-8"x3'-10", Treadmill 7'x3', Row Machine 8'-6"-2', Back Ext Machine 4'-6"x2', Power Rack 4'x4'	Observation windows, well ventilated Rubber floor pads			500	1	500	1	500		Exist

			1					
Career Dorm Rooms			(4) 2x2 Lockers, twin bed, Night Table	shift command dorm auxiliary to office	no TV's	120	5	600
					no shaker beds			
	0	0						
Student Dorm Rooms			(2) 2x2 Lockers , 2 twin Beds, 2 Night Tables, 2 Dressers		no TV's	144	1	144
	0	0			no shaker beds			
Toilet / Shower				All single occupant rooms	Toilet, Sink and Shower	100	3	300
				adjacent to dorms	toilet exhaust			
Toilet (pending final bldg size)				adjacent to dayroom	Toilet, and Sink	100	1	100
					toilet exhaust			
Custodial			Storage	Mop Sink & Cleaning Storage		36	1	36
Laundry			Clothes washer and dryer	Folding counter and shelving	washer & Dryer accommodations	60	1	60
Sub Total							·	2624
Sub Total								2024
Administration Area			٦ r	1		– – – – – – –		
								100
Chief Office		1	desk, file cabinet, shelving, mall table and chairs			192	1	192
Administration Manager Office		1	desk, file cabinet			192	1	192
Clerk Office		1	desk, file cabinet	slide window access to lobby		144	1	144
Code Enforcement			Desk, file cabinet, Plans Table, Plans Storage			192	1	192
Deputy Chief						144	1	144
Shift Commander Office						144	1	144
Office Machine / Storage Rm			Copier/Printer, Computer Server, Storage	Office Supplies		144	1	144
Duty / EMS Office					min (3) computer/communication stations	192	1	192
Conference Room			Table and Chairs	12 people		240	1	240
		1		No space for built in cabinets/counters				
Lavatory(for admin)				Single Occupant Toilet Room	Toilet and Sink	64	1	64
		1			toilet exhaust			
Sub Total								1584
Public Area								
Lobby		1	(2) chairs	window into clerks office		100	1	100
Lavatory				Single Occupant Toilet Room		64	1	64
Training / Community Room			Tables and Chairs	Park street only: 40 people - 30 sqtf per student+ 150 sqft instruction		1350	1	1350
Sub Total								1514
								,
All SUB TOTALS] [16,880
Other] [
walls	+	1	┨┠─────			0.500/	, 	1604
Corridors			┨┠─────			9.50% 6.50%	, 	1004
		-	┨┠─────			6.50%	, 	288
Mechanical Rooms			┨┠━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━	Possible to put on a mezzanine		$\neg \vdash \neg \downarrow$, 	
IT Closet	-	1	┫╞────	dual 21" wide racks w/access all sides			, 	80
contingency						5.00%		844
Sub Total							, L	3913
	1	1	7					
TOTAL								20,793
							Exist. bldg (Reno)	4,800
							Total Addition Size	
								-0,000

5	600	5	600	Exist
1	144	1	144	Exist
-		-		
3	300	3	300	Exist
1	100	0	0	Exist
1	36	1	36	Exist
1	60	1	60	Exist
	2624		2524	
		-		
1	192	1	192	 N/A
1	192	1	192	N/A
	144	1	144	N/A
1	192 144	1	192 144	N/A N/A
1	144	1	144	N/A N/A
1	144	1	144	 N/A N/A
1	144	1	144	 N/A N/A
1	240	1	240	N/A
-	2.10	-	2.10	,,,
1	64	1	64	
	1584		1584	
	100		100	
1	100	1	100	 N/A
1	64 1350	use admin conf room	64 0	Exist
1	1350	use admin cont room	164	
	1514		104	
	16,880		11,856	
	1604		1126	Included
	1097		771	Included
_	288		288	Exist
	80		80	Exist
	844		593	Included
	3913		2858	
	20,793		14,714	4,800
Exist. bldg (Reno)	4,800			
	1 4 - 0 - 0			

19,514 (Sanborn + Park)