

PHASE II - FINAL REPORT
BARRINGTON TOWN OFFICES
STUDY FOR REMEDIATION,
RENOVATION OR RELOCATION



FOR
THE TOWN OF BARRINGTON, NEW HAMPSHIRE

FALL 2012

THE H. L. TURNER GROUP Inc.

TURNER
GROUP

ARCHITECTS • ENGINEERS • BUILDING SCIENTISTS

Phase II – Final Report
Barrington Town Offices
Study for Remediation, Renovation or Relocation
Fall 2012

RENOVATION OF THE EXISTING BUILDING

This report summarizes our latest recommendations with regard to the renovation of the existing Town Office Building located at 137 Ramsdell Lane. This is a continuation of the work done by The H.L. Turner Group Inc. (TTG) that was presented in a report entitled “Final Report, Barrington Town Offices - Study for Remediation, Renovation or Relocation”, dated February 2011. The original TTG report is the basis for this latest work along with the recommendations contained in the report completed by Building Science Corporation, dated October 14, 2011, together with comments and recommendations in a report entitled “Decision Grade Audit Report” prepared by SDES Group for the Town of Barrington under the New Hampshire Municipal Energy Assistance Program. Finally, many of the comments and final recommendations contained herein have been derived from the many hours of effort and the resulting input provided by the current Building Committee. By taking into consideration the recommendations of the Barrington Town Office Building Committee, we determined what specific work items should be scaled back from our original report recommendations, what items can be performed in a more cost effective manner or eliminated entirely in order to establish a new baseline cost for building renovations.

Since moisture intrusion and air quality are of primary concern, we focused on these items, while trying to improve the energy efficiency of the building, cut down on air infiltration, improve accessibility, address life safety issues, and make upgrades to old, outdated systems and equipment. In this case the term “value engineering” does not imply that we simply cut work items from the project scope, but instead we determined what items can be eliminated or scaled back, so as to not compromise the primary goal and objectives.

Within the above guidelines, we attempted to prioritize the most cost effective items while controlling the overall cost of the project. The final end product in this process is a new baseline cost for the Town Office Renovation Project.

As part of this newest phase of the work, we compiled information supplied by the Building Committee regarding the space needs for a new Town Complex. The new Town Complex is envisioned to include a Town Office Center, SAU Office Center, and a Town Library. Using the space programming information provided by the Committee, TTG generated a basic conceptual site plan layout of the building complex and opinion of cost for each of two sites; the Clark Goodwill property and the Calef property. The

Committee provided a detailed site plan for the Clark Goodwill property prepared by Jones and Beach Consultants. The site plan was prepared on behalf of Turbo Cam Corporation who will utilize three lots on the property for a new and future plant expansion. The remaining three lots will remain under the Town's ownership for development. The Town-owned lots have been identified on the site plan and our conceptual layout has been superimposed on these Town lots. For the Calef site we used a site plan that originated from a USGS map of the area.

COMMENTARY

In our original report prepared in February of 2011, we summarized our recommendations for renovating the existing building in twelve (12) major bullet points. Below the original recommendations are listed in italics with a follow-up comment, discussion, and a final recommendation for each item.

- 1. Conduct further testing to pinpoint the location of mold throughout the building. The testing to date was limited to taking air samples inside the occupied spaces and testing of the wall cavities at a few locations. The proposal is to expand the areas to be tested to include suspected areas that could be harboring mold including under carpets, in the attic space, wall cavities under windowsills, in the wood window frames, the fabric partitions, and even the paper documents stored in the archives.*

Comment: We no longer recommend extensive testing to pinpoint areas of mold within the building. We know there is mold in the wall cavity. By virtue of the proposed renovation work, the wall cavity will be completely sealed. The proposed work to the outside of the building will cut-off the moisture source that is needed for mold to survive. On the inside of the building, the carpeting, furniture, windowsills, trim, stored paper, etc.; items that may be harboring mold, will all be removed from the building and with it the mold. We are recommending that the interior of the perimeter walls and other surfaces within the building be thoroughly cleaned, disinfected, and then sealed. The work to the walls essentially cuts off the oxygen supply, moisture, and food source not allowing new mold to take hold and propagate. Mold in the wall cavity will be remediated as described below.

- 2. As part of the renovation work all items such as carpet, partitions, etc. that contain mold shall be removed from the building. This shall require a certain amount of demolition. Other areas where mold is found such as in wall cavities shall be remediated by flushing with a biocide treatment, adding an inhibitor to prevent future growth, and finally sealing the wall cavity. Most of the existing interior finishes shall be demolished during the renovation and removed from the building.*

Comment: As described in item 1 above, we are removing all items from the building that may be harboring mold. We are proposing that the perimeter walls be sealed both inside and out. We continue to recommend that the wall cavities be flushed with a biocide treatment with the addition of an inhibitor to prevent future growth of mold. After treatment the wall cavity will be sealed. We are highly confident that this treatment along with the measures that will be taken to keep moisture out of the building will end the mold problem. Some have questioned flushing of the wall cavity with chemicals, doubting its effectiveness and questioning its cost; however, it is important that all Town employees working in this building have peace of mind knowing that everything possible was done to eradicate the mold.

3. *All paper documents stored in the building shall be removed and copied on new paper or on electronic media. Historic documents or other documents of significance that need to remain in their original form can be decontaminated. The process is similar to historic restoration and is very expensive; therefore, we do not recommend the cleaning of all old documents, but rather replacement. Please note that this cost is not included in the final numbers for the renovation. Appendix E includes information on mold removal from books and paper documents. This issue would have to be considered regardless of whether the Town stays in the existing building or moves to a new office building.*

Comment: This recommendation concerning the existing documents has not changed.

4. *All remaining interior areas shall be thoroughly cleaned and prepared for the new finishes. The interior surface of the perimeter walls shall be sealed with a spray-on, open cell, breathable foam.*

Comment: As mentioned above we are recommending that all interior areas be cleaned and disinfected. As for the perimeter walls, we are now recommending that the interior face of the walls be sealed with an impermeable paint or other similar product, either sprayed, rolled, or brushed onto the existing CMU wall. We are no longer recommending the construction of a new metal stud, gypsum-covered wall along the interior of all perimeter walls. Wherever new electrical conduits are needed they can be mounted directly to the CMU walls; however, care must be taken to minimize penetrating the shell of the masonry wall. All current and newly created holes and penetrations in the CMU must be carefully and thoroughly sealed.

Along with the elimination of this interior perimeter wall, we are also eliminating the additional insulation on the inside of the building walls. Interior insulation will not provide an appreciable boost to the overall R-value of the building and will actually impede the ability of the mass of the CMU walls to retain heat or cooling, which is important when it comes to moderating temperature throughout the building. Finally, since much of the internal structure is wood framed, as cited in the BSC report, “members that are embedded in masonry walls become more vulnerable to moisture

damage after the application of interior insulation. They run at a cooler (and therefore wetter) state in winter, and their ability to dry is reduced.”

5. *Complete site work around the building to include waterproofing of the foundation, improved drainage through the installation of drainage pipe, and a crushed stone drip edge around the perimeter of the building. Other site improvements include improved site lighting and improvements to the exterior railing, stairs, and walkways. This site work is intended to supplement the work completed last November.*

Comment: We still stand by this recommendation, especially when it comes to keeping water out of the building. The area most susceptible to water intrusion at the foundation seems to be along the rear or north side of the building. Our recommendations include a waterproofing treatment for the below-grade portions of the foundation wall on the north side, and the installation of foundation drains along the below-grade spaces on the south and southeast sides of the building. All below-grade foundation that is exposed for waterproofing can be insulated at that time. Additional recommendations including installation of a drip edge, parking lot improvements, and lighting improvements are covered in our original report.

6. *Meanwhile the exterior of the building shall be fitted with a new skin. This shall consist of an external air barrier, a drainage plane, and a minimum of 3-inches of rigid foam, an air space, and new siding. Several options are being considered for new siding including “Hardiplank” cement board siding, vinyl siding, and metal siding. As of the writing of this report, a final decision has not been made. A sketch, SK-A1, of the proposed wall construction is included at the end of this section.*

Comment: Everyone that has looked into the issues at the Barrington Town Office Building, including Building Science Corporation, has concluded that adding an impermeable barrier, insulation, and a new skin to the exterior of the building is the preferred approach for solving the moisture intrusion problem, while seeking to make the building more energy efficient; therefore, we stand by our original recommendation to fit the exterior of the building with a new skin. This includes new energy efficient windows and doors throughout. The area of the existing windows and doors is over 40 percent of the total surface area of the walls, so this change will definitely help to improve energy efficiency and comfort throughout the building. Since each individual window is extremely large (up to 60 square feet each), we are anticipating that the new windows would be downsized by about 30% with the remaining area of opening filled with insulated decorative panels. The windows and flanking panels will provide an aesthetically pleasing look to the newly sided building, further improving overall energy efficiency.

7. *A new sloped roof shall be added to the 1960's wing. The roof shall improve the drainage of water away from the building, provide for enhanced insulation, and provide a tempered space for locating mechanical equipment.*

Comment: Since the drainage issues will be handled through foundation waterproofing, subsurface drains, and a new building skin, the argument for adding a sloped roof to improve drainage of water away from the building loses some of its importance. Also, since the existing space available in the 1960's wing between the existing ceiling and the roof structure is probably sufficient for many of the smaller compact mechanical units, the recommendation for adding a sloped roof has been withdrawn. It is always better, especially in New England, to have a sloped roof on a building, but there are a great many flat roofs throughout the region; however, we do recommend that the membrane be replaced as part of the renovation work. The existing roof is over 15 years old and we did observe that some of the seams are starting to fail. Also there are low spots along the center of the roof that tend to pond water. These can be rectified when the roof is redone with new tapered insulation.

8. *Renovation work shall consist of upgrades to the mechanical and electrical systems throughout the building. The major work will include a new radiant heating system and a new central ventilating and air conditioning system. The existing oil-fired boilers are only a few years old and therefore will be part of the heating system for the renovated building.*

Comment: The installation of a radiant heating system would require that the existing floor levels be raised. It is obvious that this would have an adverse effect on the stair riser heights, door heights, and other such issues. The costs required to deal with these issues seem to outweigh the benefit of having a radiant heating system. Furthermore, the BSC report states "measurements I have seen to date do not indicate any actual savings associated with these types of systems." For these reasons we no longer recommend the installation of a radiant heating system, and will rely on a new finned tube baseboard system for delivering heat throughout the building spaces.

Along with new branch piping and heating terminals, we continue to recommend a new ventilation and air conditioning system for the entire building. The recommendation for a sprinkler system remains and electrically, we continue to recommend upgrades to the lighting, fire monitoring and alarm system, security system, telephone and data throughout the building along with new receptacles as required.

9. *Complete upgrades to bring the building in compliance with ADA standards, including the addition of an elevator and upgrades to stairways and bathrooms.*

Comment: There are no proposed changes to our original recommendation with regard to upgrades to bring the building in compliance with ADA standards. Work will include the addition of a new elevator, complete renovation of the bathrooms, and upgrades to the stairwells and handrails.

10. *Provide a records storage room that addresses issues where the Town is currently non-compliant with the guidelines of The New Hampshire Department of State “Best Practice for Vital Records Preservation”.*

Comment: We recommend that a proper records storage room be added as part of the renovation work when the space is reconfigured.

11. *Repair all remaining areas, add finishes, and new furniture.*

Comment: Since any of the existing interior surfaces and finishes could be harboring mold spores, we recommend a thorough cleaning or replacement of the finishes. All carpeting and ceiling tiles should be replaced. Rather than try to clean the existing furniture, we recommend that all the furniture be replaced.

12. *Test, monitor, and commission all areas and systems within the building.*

Comment: We recommend that all new systems be thoroughly tested and commissioned to insure proper operation.

Based on the work outlined above, we prepared an updated cost evaluation for renovation of the existing Town Office Building. It is as follows:

- Renovate the existing Town Office Building to include remediation and encapsulation of all mold, addressing all moisture intrusion and air infiltration, building envelope modifications, insulation and mechanical systems, address ADA issues, etc. as described above in items 1 through 12. The total cost for the renovation of the 18,800 square foot building is approximately \$97.25 per square foot for a total construction cost of \$1,828,234. The construction cost includes materials, labor, and the contractor’s general conditions, overhead and profit. The total project cost is \$2,326,252, and in addition to construction, includes all ancillary and soft costs such as architecture and engineering, construction administration, new furniture, and a 10% contingency.

For a complete breakdown of the costs see Appendix A.

NEW CONSTRUCTION

The new Town Complex is envisioned to include a Town Office Center, SAU Office Center, and a Town Library. Using the space programming information provided by the Committee, TTG generated a basic conceptual site plan layout of the building complex for the Town-owned Clark Goodwill site and for the Calef Site. Reference the drawings in Appendix B. The complex is configured with common areas to be shared between the Library, the SAU, and the Town Offices. The square footage breakdown is as follows:

- Library – Requested: 15,000 to 17,000 square feet
Proposed design: 15,060 square feet
- Recreation Department – Requested: 1,300 square feet
Proposed: 1,250 square feet
- School Administrative Unit – Requested: 6,350 square feet
Proposed: 6,125 square feet
- Town Offices – Requested: 10,800 square feet
Proposed: 8,410 square feet (but the large meeting room is part of the shared space)

The total requested square footage for the Library, Recreation Department, SAU and Town Offices is 33,000 square feet, and the proposed design provides for a total of 34,275 square feet on two levels.

At an average construction cost of \$150.00 per square foot, the total building cost is \$5.14 million. This cost is based on a square foot average for a one-story Town Hall from RS Means 2012 Square Foot Costs. Even though we are proposing a two-story structure, we felt that this value was appropriate in this case. The \$150 per square foot includes substructure, shell, interiors, and services. It does not include equipment and furnishings, special construction, and building site work.

It is important to note that the \$150 per square foot cost is not scalable. The cost is based on the size of the building. The larger the building the lower the square foot cost. This is shown in the cost matrix in Appendix A. For example a very small 1,500 square foot recreation building may have a square foot cost of \$280, while the full 32,275 square foot building is \$150 per square foot. We have tried to breakdown the building into several parts to assist you in trying to phase the project. There are numerous options; we have indicated a few.

The site work was estimated from our previous report to be in the order of \$300,000 for the Clark Goodwill site to \$380,000 for the Calef site. The Calef site is not owned by the Town and would have to be purchased, thus the higher cost. Although the access road

and some utility work will already be in place on the Clark Goodwill site for the Turbo Cam complex, the lots left for the Town are not prime sites, in that they contain ledge and wetlands. The original site development cost may reduce somewhat, but the ledge excavation is a big unknown.

The site cost is a large variable. To save cost in the long-term, you may want to consider bringing utilities onto the site or locating parking, septic fields, etc. for the future building, not just for phase I.

Further cost options for new construction and a complete breakdown of the costs is presented in Appendix A.

APPENDIX A

OPINIONS OF COST

Renovated Town Offices ~ Barrington, NH

Architect's Opinion of Cost

Updated: 09.04.12

Opinion of Cost				Comments
CONSTRUCTION:				
Building:				
Architectural	\$44.86	18,800	\$843,367	Includes ADA upgrades, new ext wall system, new finishes, building code upgrades, demo
Mechanical - HVAC	\$22.34	18,800	\$420,000	New Ventilation System
Plumbing			\$20,000	
Fire Protection	\$3	18,800	\$56,520	
Electrical/Comm./Security	\$4.40	18,800	\$82,200	Range from \$80k-\$95k (Adjusted)
Communications				In electrical numbers
Subtotal:	<input type="text" value="\$75"/>		<input type="text" value="\$1,422,087"/>	
Site:				
Civil			\$40,500	
			<input type="text" value="\$1,462,587"/>	
Construction (General Requirements)	10%		\$146,259	
Construction (Overhead & Profit)	15%		\$219,388	
SUBTOTAL CONSTRUCTION:	<input type="text" value="\$97"/>		<input type="text" value="\$1,828,234"/>	Construction Contract Only

ANCILLARY COSTS:				
Architectural/Engineering	7.0%		\$127,976	Design, Bid Documents
Construction Administration	2.0%		\$36,565	Construction Oversight
Commissioning			\$20,000	Confirmation that all systems are fully functional under all conditions
Utility Charges			\$0	Transformers, primaries, etc. (none known at this time)
Bond Counsel			\$8,000	Preparation to sell public bond. Number verified by town.
Moving and Storage			\$0	Done by town
Clerk-of-the-works			\$0	Owner's Representative (Possibly not needed)
Printing / Plotting			\$4,000	Construction drawings
Miscellaneous Expenses			\$10,000	Misc Expenses (non-construction related)
Records Cleaning / Replacement			\$0	Done by town
SUBTOTAL ANCILLARY:			<input type="text" value="\$206,541"/>	Associated "Soft" Costs

FURNISHINGS/EQUIPMENT:				
Furniture	20	\$4,000	\$80,000	Allowance to replace loose furniture and technology equipment
Generator			\$0	
			<input type="text" value="\$80,000"/>	

CONTINGENCY:	10.00%		<input type="text" value="\$211,477"/>	Unencumbered for unexpected costs (adj.)
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TOTAL PROJECT BUDGET	\$124		<input type="text" value="\$2,326,252"/>	Opinion of Cost
	\$/sf 18,800 sf			Total Building SF

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BARRINGTON, NH

RENOVATED TOWN OFFICES

ARCHITECT'S OPINION OF COST

	Renovation Area	Units	Cost/unit	unit	<i>Updated: 09.04.12</i> Total Cost
Division 1- General Requirements					\$ 97,000
014000 Quality Requirements					
Mold Abatement	9600		\$ 5.00		\$ 48,000
Hazardous Flooring Abatement	9400 sf		\$ 2.00	per sf	\$ 18,800
Window Caulking Abatement	68 x		\$ 150.00	ea	\$ 10,200
Lead Paint Abatement					\$ 20,000
Division 2- Existing Conditions					\$ 15,000
24119 Selective Structure Demolition					
General/Selective Demolition (including windows)					\$ 15,000
Division 3- Concrete					\$ -
					\$ -
Division 4- Masonry					\$ -
					\$ -
Division 5- Metals					\$ 23,100
054000 Cold-Formed Metal Framing					
Hat Channels @ 24" O.C. Horizontal	6200 lf		\$ 2.50		\$ 15,500
3 1/2" int. metal studs @ 24" O.C.	400 lf		\$ 19.00	per lf	\$ 7,600
Division 6- Wood, Plastics, Composites					\$ 102,320
061053 Miscellaneous Rough Carpentry					
Wood Blocking at Openings	68 x		\$ 200.00	ea	\$ 13,600
062023 Interior Finish Carpentry					
Interior Window Trim	68 x		\$ 165.00	ea	\$ 11,220
Interior Door Trim	5 x		\$ 500.00	ea	\$ 2,500
Miscellaneous Trim and Casework					\$ 10,000
064300 Wood Stairs and Railings					
Modify Stairs & Railings for ADA					\$ 50,000
064600 Wood Trim					
Exterior Trim					\$ 15,000

Division 7- Thermal and Moisture Protection					\$	134,880
70150.19	Preparation for Re-Roofing					
	Demo Existing EPDM Roof	5100 sf	\$ 2.00 per sf		\$	10,200
072100	Thermal Insulation					
	Additional Attic Insulation	4400 sf	\$ 1.00 per sf		\$	4,400
072400	Exterior Insulation					
	Cement Board Siding	6900 sf	\$ 5.00 per sf		\$	34,500
	Spray Applied AB/VB (includes foundation)	8800 sf	\$ 1.50 per sf		\$	13,200
	Rigid Insulation Tape				\$	500
	2" Rigid ISO Insulation (includes foundation)	8800 sf	\$ 1.60 per sf		\$	14,080
075300	Elastomeric Membrane Roofing					
	New EPDM Roof	5100 sf	\$ 10.00 per sf		\$	51,000
076200	Sheet Metal Flashing and Trim					
	Flashings	300 lf	\$ 10.00 per lf		\$	3,000
79200	Joint Sealants					
	Sealants				\$	4,000

Division 8- Openings					\$	184,800
081113	Doors and Frames					
	New Main Entrance Door w/vestibule	1 x	\$88,000.00 ea		\$	88,000
	New Main Entrance Doors	1 x	\$ 8,000.00 ea		\$	8,000
	New Exterior Double Door	1 x	\$ 3,600.00 ea		\$	3,600
	New Exterior Single Doors	3 x	\$ 2,000.00 ea		\$	6,000
	New Interior Doors				\$	-
085000	Windows					
	Large Window Units	60 x	\$ 1,200.00 ea		\$	72,000
	Small Window Units	8 x	\$ 900.00 ea		\$	7,200

Division 9- Finishes					\$	159,267
095123	Acoustical Tile Ceilings					
	Acoustical Ceilings	18,840 sf	\$ 2.00 per sf		\$	37,680
	Gypsum for partition walls	6,400 sf	\$ 2.80 per sf		\$	17,920
096500	Resilient Flooring					
	Flooring (VCT) 40% of area	7500 sf	\$ 5.00 per sf		\$	37,500
096816	Sheet Carpeting					
	Carpet - 40% of area	7500 sf	87 per sy		\$	24,167
099100	Painting					
	Wall and floor finishes for bathroom	24000 sf	\$ 0.75 per sf		\$	18,000
					\$	24,000

Division 10- Specialties					\$	58,020
101400	Signage					
	Room Signs				\$	1,500
104400	Fire Protection Specialties					
	New Sprinkler System	18840 sf	\$ 3.00 per sf		\$	56,520

Division 11 - Equipment				\$	-
By Town				\$	-
Division 12 - Furnishings				\$	-
By Town				\$	-
Division 13- Special Construction				\$	-
None				\$	-
Division 14- Conveying Equipment				\$	125,500
142400 Elevators					
4000 lb Hydraulic w/3 stops				\$	125,500
Division 22- Plumbing				\$	20,000
224100 Plumbing Fixtures					
Upgrades to Bathrooms for ADA				\$	20,000
Division 23-Heating and Ventilating and Air Conditioning				\$	420,000
New Piping for Heating System				\$	20,000
Finned Tube Radiation	300 lf	\$	80.00 per lf	\$	24,000
Ventilation and Air Conditioning				\$	376,000
Division 26- Electrical				\$	69,700
Emergency Lighting				\$	5,900
Site Lighting				\$	6,800
Interior Lighting				\$	22,000
New Receptacles Switches				\$	30,000
Panelboards				\$	5,000
Division 28- Electronic Safety and Security				\$	12,500
Add Smoke Detectors				\$	2,500
Upgrade Telephone and Data				\$	5,000
Upgrade Security System				\$	5,000
Division 31- Earthwork/Site Work				\$	19,500
312000 Earth Moving					
Grading				\$	2,000
Parking Lot Work and Access Ramp				\$	15,000
Dumpster Pad				\$	2,500
Division 32- Exterior Improvements				\$	3,000
321216 Asphalt Paving					
Restripe Paving for Accessible Spaces				\$	1,000
329200 Turf and Grasses				\$	-
Final Landscaping				\$	2,000
Division 33- Utilities				\$	18,000
Footing Drains and Drip Edge				\$	18,000

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Subtotal		\$	1,462,587
General Conditions/OH&P (15%)		\$	219,388
Construction Contingency (10%)		\$	146,259
Subtotal Construction		\$	1,828,234

Ancillary Costs

Architectural and Engineering	7.0%	\$	127,976
Construction Administration	2%	\$	36,565
Commissioning		\$	20,000
Utility Charges			None
Moving and Storage			By Town
Bond Counsel		\$	8,000
Miscellaneous		\$	10,000
Records Salvage and Cleaning			By Town
Printing/Plotting		\$	4,000
Subtotal Ancillary Costs		\$	206,541
Total Construction + Ancillary Costs		\$	2,034,775

**Barrington, NH Town Buildings
Architect's Opinion of Cost Matrix**

Updated: 09.20.12

	Size of Building	Approx. \$/sf	Building Cost	Site Cost	O&P / Gen Con / Escalation *	Building & Site Costs	Soft Costs	Furniture Allowance	Contingency	Total Costs	Notes:
Renovate Existing Building	18,800 sf	\$75.65 \$/sf	\$1,422,220	\$40,500	25% \$365,680	\$1,828,400	11.5% \$210,266	\$80,000	10% \$211,867	\$2,330,533 ~ \$2.3M	
New Combined Facility Turbo Cam / C-G	34,275 sf	\$150 \$/sf	\$5,141,250	\$300,000	20% \$1,088,250	\$6,529,500	10.0% \$652,950	\$160,000	8% \$587,396	\$7,929,846 ~ \$7.9M	
New Combined Facility Calef	34,275 sf	\$150 \$/sf	\$5,141,250	\$380,000	20% \$1,104,250	\$6,625,500	10.0% \$662,550	\$160,000	8% \$595,844	\$8,043,894 ~ \$8.0M	
New Office Building Turbo Cam / C-G	19,215 sf	\$160 \$/sf	\$3,074,400	\$270,000	20% \$668,880	\$4,013,280	11.0% \$441,461	\$90,000	8% \$363,579	\$4,908,320 ~ \$4.9M	
New Office Building Calef	19,215 sf	\$160 \$/sf	\$3,074,400	\$342,000	20% \$683,280	\$4,099,680	11.0% \$450,965	\$90,000	8% \$371,252	\$5,011,896 ~ \$5.0M	
Future Library Addition Turbo Cam / C-G	15,060 sf	\$170 \$/sf	\$2,560,200	\$45,000	20% \$521,040	\$3,126,240	11.0% \$343,886	\$70,000	8% \$283,210	\$3,823,337 ~ \$3.8M	
Future Library Addition Calef	15,060 sf	\$170 \$/sf	\$2,560,200	\$57,000	20% \$523,440	\$3,140,640	11.0% \$345,470	\$70,000	8% \$284,489	\$3,840,599 ~ \$3.8M	
New Library Only Turbo Cam / C-G	17,000 sf	\$165 \$/sf	\$2,805,000	\$240,000	20% \$609,000	\$3,654,000	11.0% \$401,940	\$90,000	8% \$331,675	\$4,477,615 ~ \$4.5M	
New Library Only Calef	17,000 sf	\$165 \$/sf	\$2,805,000	\$304,000	20% \$621,800	\$3,730,800	11.0% \$410,388	\$90,000	8% \$338,495	\$4,569,683 ~ \$4.6M	
New Town Office Only Turbo Cam / C-G	10,800 sf	\$180 \$/sf	\$1,944,000	\$240,000	20% \$436,800	\$2,620,800	11.0% \$288,288	\$65,000	8% \$237,927	\$3,212,015 ~ \$3.2M	
New Town Office Only Calef	10,800 sf	\$180 \$/sf	\$1,944,000	\$304,000	20% \$449,600	\$2,697,600	11.0% \$296,736	\$65,000	8% \$244,747	\$3,304,083 ~ \$3.3M	
New Rec Dept. Only Turbo Cam / C-G	1,500 sf	\$280 \$/sf	\$420,000	\$120,000	20% \$108,000	\$648,000	15.0% \$97,200	\$5,000	8% \$60,016	\$810,216 ~ \$.8M	
New Rec Dept. Only Calef	1,500 sf	\$280 \$/sf	\$420,000	\$152,000	20% \$114,400	\$686,400	15.0% \$102,960	\$5,000	8% \$63,549	\$857,909 ~ \$.9M	
New SAU Only Turbo Cam / C-G	7,350 sf	\$195 \$/sf	\$1,433,250	\$150,000	20% \$316,650	\$1,899,900	12.0% \$227,988	\$25,000	8% \$172,231	\$2,325,119 ~ \$2.3M	
New SAU Only Calef	7,350 sf	\$195 \$/sf	\$1,433,250	\$190,000	20% \$324,650	\$1,947,900	12.0% \$233,748	\$25,000	8% \$176,532	\$2,383,180 ~ \$2.4M	

Notes:

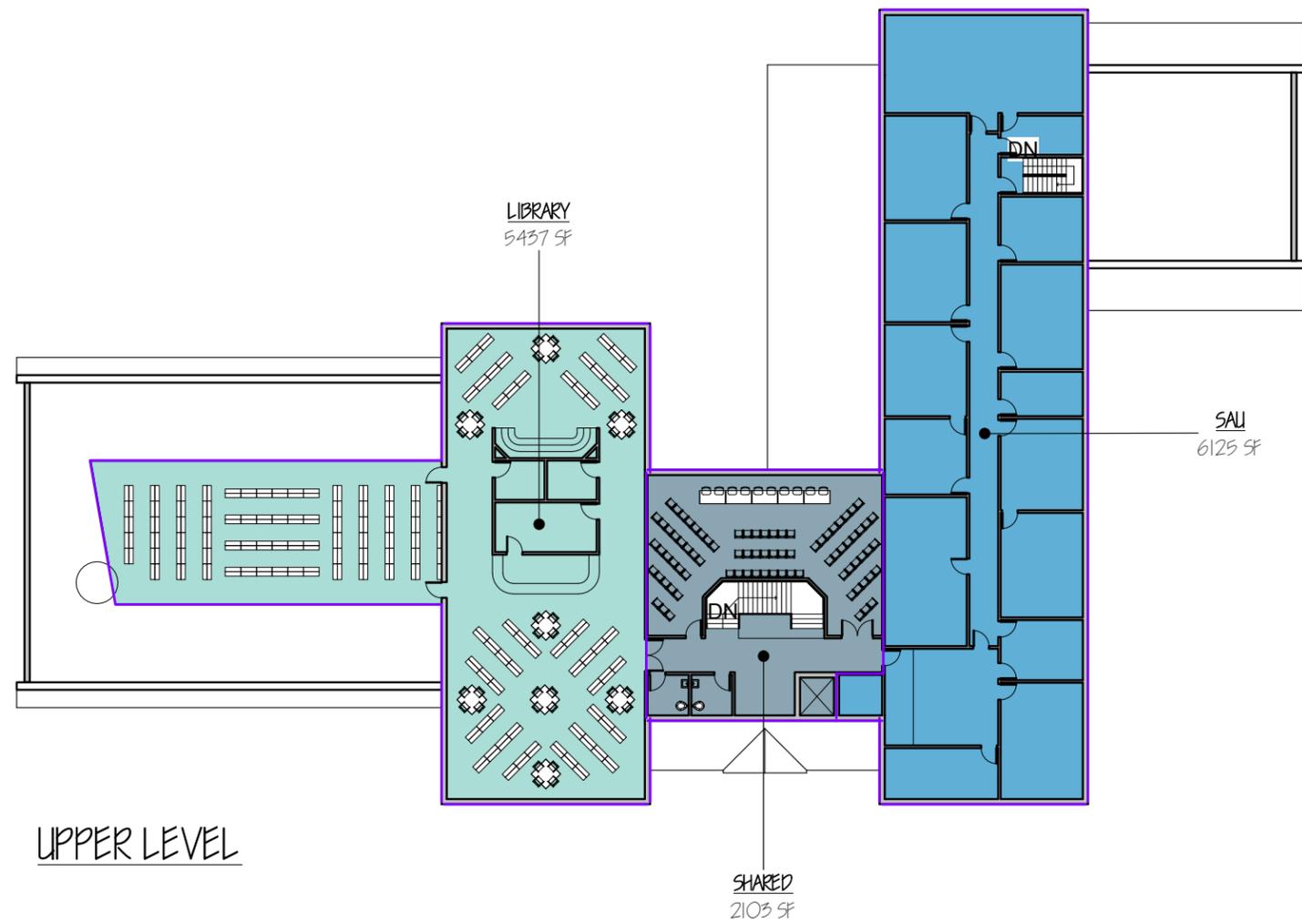
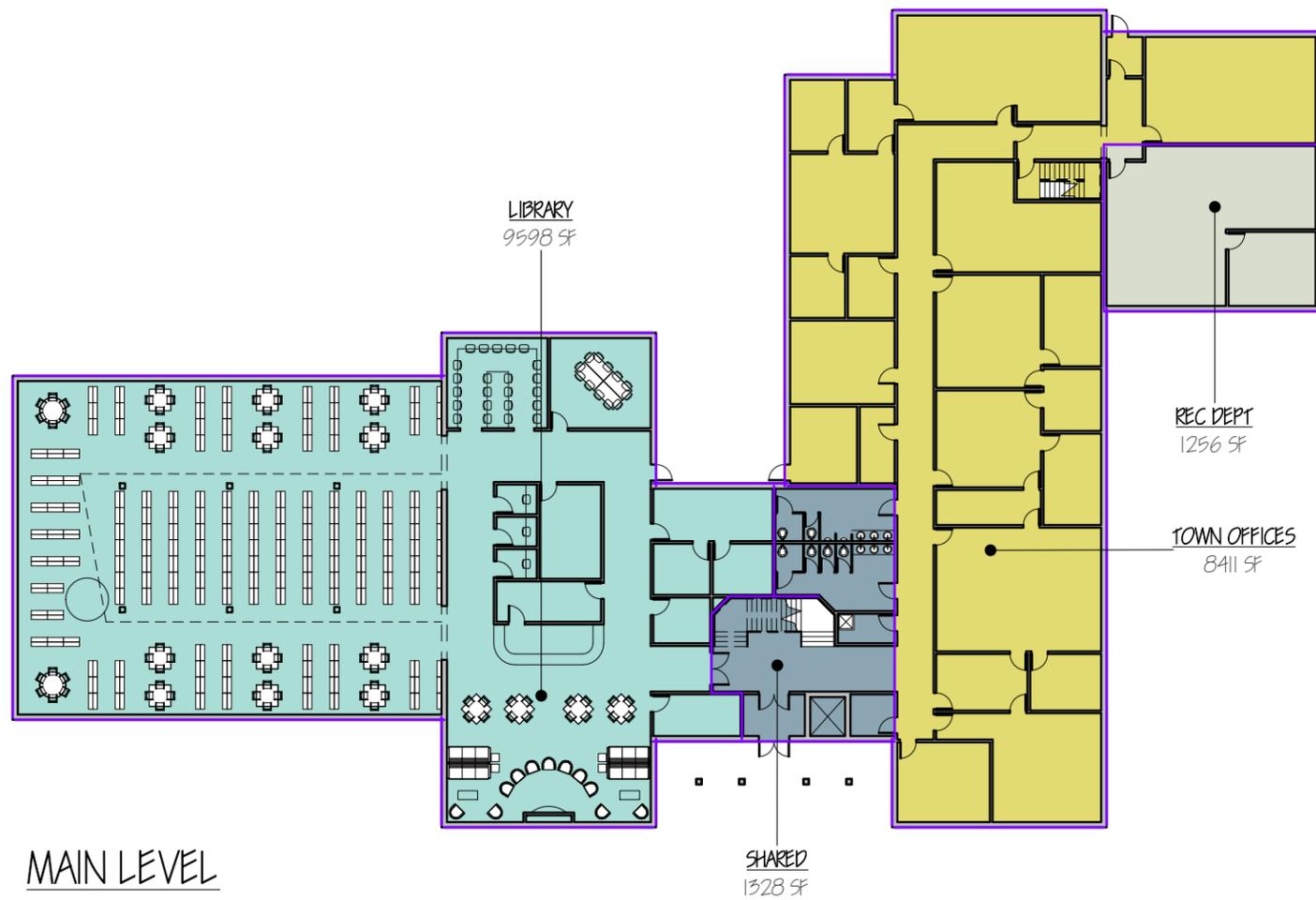
- Size of building based on programs provided and concept design dated 09.06.12 numbers are approximate and could verify with final design.
- Approximate dollars per square foot based on RS Means and recent relevant construction costs in New Hampshire.
- Dollars per square foot varies based on the size of the building, type of building, and materials.
- Site costs are a variable based on clearing and prep work for future additions. In addition, utilities, water, septic, mobilization, and other items vary based on the scale of the building and future spaces.
- The Clark Goodwill site is now being developed by Turbo Cam. Much of the infrastructure will be done by Turbo Cam. However, the building area that is left has ledge and wetlands. This is a variable to the project cost.
- O&P and General Conditions have recently been lower than projected for this project. However, next year we expect the numbers to return to normal levels. There is possible saving here depending on bidding.
- Escalation has been projected for a passing bond in 2013. Future years will increase the escalation. The future additions costs will increase with project escalation.
- Soft costs are based on the difficulty of renovations vs. new construction and scale of project. Many things remain the same depending on scale, i.e. bond counsel, printing, commissioning, utility charges, etc.
- Furniture costs are an allowance only. It is estimated that several items will be reused from the existing buildings. This can increase based on the amount of new items purchased.
- Contingency is recommended to be between 5%-10%. For the renovation we are suggesting 10% due to several unknowns. We are also recommending 8% for new construction. Once a concept is developed with the users and a building price has been established this can be reduced to 6%.
- Numbers for O&P, General Conditions, Escalation and Soft Costs are all listed as a percentage and will effect the overall number by a few dollars from the breakdown sheets.

APPENDIX B

CONCEPT DRAWINGS

BUILDING AREA SCHEDULE

LIBRARY	15035 SF
REC DEPT	1256 SF
SAU	6125 SF
SHARED	3431 SF
TOWN OFFICES	8411 SF
TOTAL	34258 SF



TOWN OF BARRINGTON NH

BARRINGTON TOWN BUILDING & LIBRARY

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

AREA PLANS

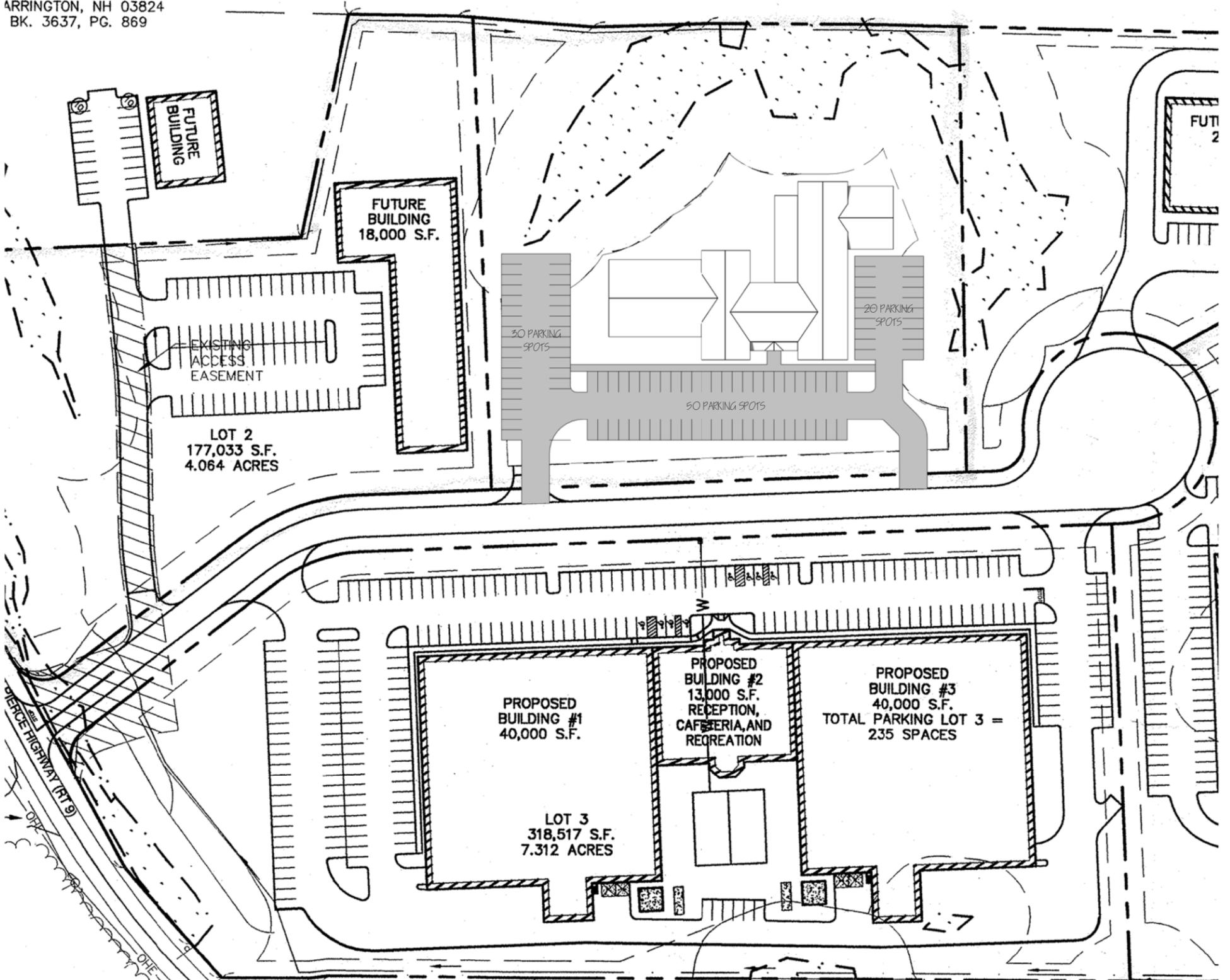
DATE: 09.06.12





AP 233, LOT 77
 AMERICAN LEGION POST 114
 C/O ROGER CARDIN JR
 PO BOX 532
 BARRINGTON, NH 03824
 BK. 3637, PG. 869

MAP 2
 CHRISTOPHER
 68
 BARRINGTON
 NO



MAP 234, LOT 2.1
 SCOTT W. DUNN
 843 FRANKLIN PIERCE HWY
 BARRINGTON, NH 03825
 BK. 3475, PG. 537
 SEE PLAT REF. 5

MAP 234, LOT 86
 ELIZABETH WALTERS
 PO BOX 117
 BARRINGTON, NH 03825
 NO REFERENCE

MAP 234, LOT 2
 JEREMY M. LABBE
 837 FRANKLIN PIERCE HWY
 BARRINGTON, NH 03825
 BK. 3302, PG. 593
 SEE PLAT REF. 5

MAP 234, LC
 RICHARD & DIANE
 8 MORNING GLO
 ROCHESTER, NH
 BK. 3619, PG.

TOWN OF BARRINGTON NH

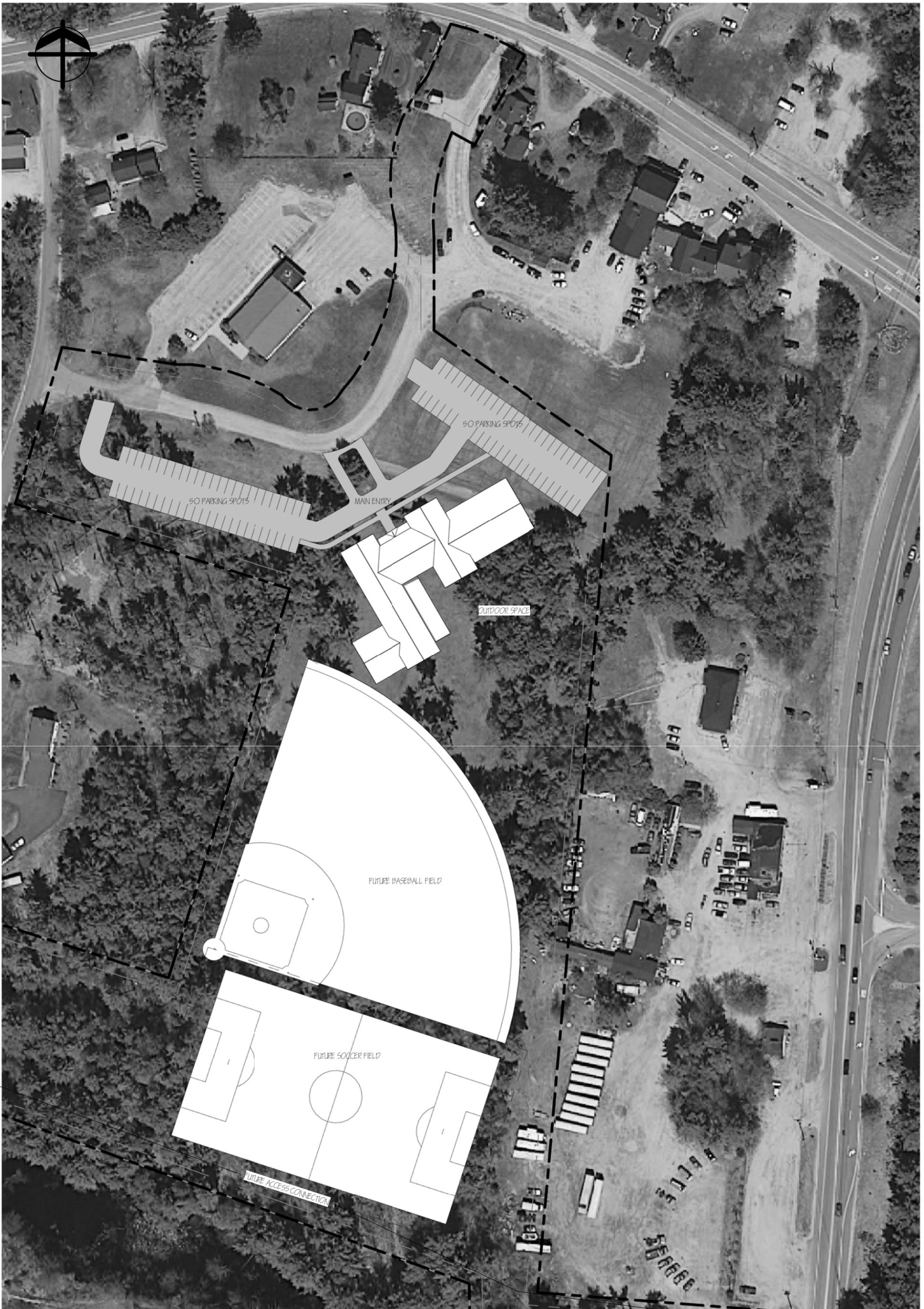
SCALE: 1" = 100'-0"

BARRINGTON TOWN BUILDING & LIBRARY

SITE 1

DATE: 09.16.12





TOWN OF BARRINGTON NH

BARRINGTON TOWN BUILDING & LIBRARY

SITE 2

SCALE: 1" = 100'-0"

DATE: 09.06.12





TOWN OF BARRINGTON NH

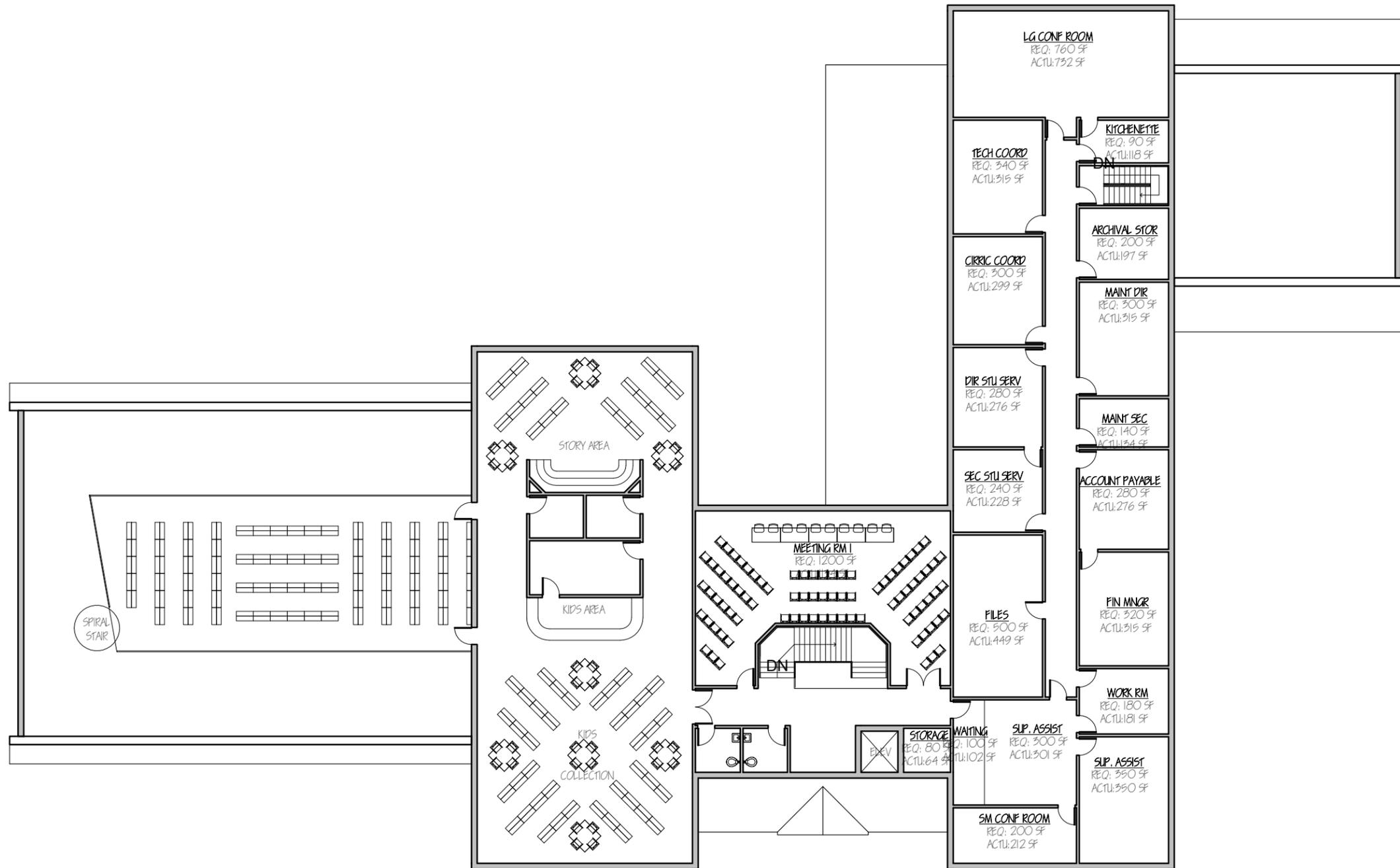
BARRINGTON TOWN BUILDING & LIBRARY

SCALE: 3/64" = 1'-0"

MAIN LEVEL PLAN

DATE: 09.06.12





TOWN OF BARRINGTON NH

BARRINGTON TOWN BUILDING & LIBRARY

SCALE: 3/64" = 1'-0"

UPPER LEVEL PLAN

DATE: 09.06.12



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