

I EXECUTIVE SUMMARY

Study Objectives

This feasibility study was intended to:

- Develop a Senior Center space program to address the current and future needs of the Town of Westford's older citizens.
- Perform an evaluation of the existing building and site.
- Explore development alternatives.
- Develop a pre-schematic design with plans and elevations and establish estimated costs for construction and site development.

Town of Westford Projected Senior Population Growth

According to MISER (Massachusetts Institute for Social and Economic Research, University of Massachusetts, Amherst) mid-level projections and US Census Bureau statistics, the elder population over 60 years of age for the Town of Westford is expected to more than double from the year 2000

(2,180) to the year 2020 (5,342). In the year 2000, the elder population comprised 11% of the Town's population, in 2010 it is expected to be 15% and in 2020 it is expected to rise to 22%. It is interesting to note the elder population (60+) as compared to the school age (5-19) population. As the elder population increases by close to 2.5, the school age population decreases slightly. (See Appendix A.)

Major Design Issues

Site Constraints

The narrowness of the Cameron School parcel does not allow for footprint expansion east or west, only to the rear of the building. The conservation parcel to the east is restricted to parking and outdoor recreation. Because of these site constraints, there is little opportunity for future footprint expansion subsequent to the addition. Program expansion would be achieved by finishing undedicated space provided in the basement. This site cannot accommodate a senior daycare facility.



Figure 1.1 Proposed Pre-Schematic Site Plan

Existing Building

Renovating and adding on to the +/-130 year old wood frame building has positive and negative implications.

Keeping the senior center in the current location gives many elders a sense of continuity and for many the historical aspect of the building is positive. Some residents are nostalgic about the building since they or their children attended school there. Some of the classroom spaces adapt well to senior center activity rooms

The drawbacks of adapting an existing old building include the relative inefficiency of accommodating a space program within the confines of an existing envelope, considerations of planning around existing structure (bearing walls, shear walls, column locations, shaft walls), existing utilities and connections, upgrading the energy efficiency of the existing building (insulating exterior walls, providing new thermally broken insulated windows), repairing and/or replacing components of the existing envelope (trim, siding, roof), and providing an appropriate accessibility into and within the building. Additionally, if energy and building upgrades are not undertaken, operational and maintenance costs run higher than in new building construction. An additional consideration is the architectural character of the addition – whether it should blend in with the old or stand out from it.

It is also important to note that renovating and adding on to the existing building will cause the current Senior Center programs and activities to be displaced during the construction period.

Program

Efficiently fitting the desired program into an already existing building can be a challenge. While most needed program space can fit into the existing building plus a 10,900 square foot addition, the adult daycare program will not. The total square footage of this facility would be 25,105 square feet which includes a larger basement area. Cameron Senior Center's pro-



Figure 1.2 Existing West Elevation

gram could fit into a smaller square footage if designed as a new free standing facility.

Development Alternatives

A series of solutions were considered for The Cameron Senior Center and include:

1. Addition to existing building
 - a) Two level above-ground addition plus basement.
 - b) Three level above-ground addition.
2. Demolish existing building and construct new facility on current site.
3. Find an alternate site and construct a new facility.
4. A final solution is to strictly renovate the existing building and meet all code requirements. Site elements would not be changed nor would footprint be added to the building. This alternative does not offer necessary expanded program space presently, but an addition and sitework could be completed in the future (See Appendix H).

The preferred design alternative is the two-level plus basement addition and is developed further in pre-schematic design (section VII).

Estimated Construction Costs

The estimated construction costs for the proposed schematic design is as follows:

Estimated Construction Costs*

$25,105 \text{ sf} \times \$150.50/\text{sf} = \$3.78 \text{ million}$

* In 2007 dollars (plus 1 year escalation at 2.5%). Soft costs are not included in these figures. An allowance of 18% for soft costs (Architectural / Engineering Services, Construction Testing, Reimbursibles, Soils testing, Bidding, Reproductions, Advertising should be carried), plus Furniture, Fixtures, and Equipment calculated at \$14/sf.

Conclusion

The pre-schematic design and corresponding preliminary construction cost estimates provide a benchmark against which further planning and budgeting decisions can be made.

There are many potential variables that can affect the ultimate scope and cost of the building: escalation costs; additional funding sources; unknown subsurface conditions; change in program scope.

The conservation land transfer to the Senior Center is conditional upon the feasibility of developing this site for an expanded Senior Center.

Further Investigation Required During Final Design

- Site Topographical Survey
- Soils Testing (for structural purposes)
- Percolation Testing (for septic and stormwater management)
- Wetlands Inventory / Buffer Areas
- Hazardous Material Survey