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Section 1: *Executive Summary*

1.1 Foreword

With an original building dating from 1933 and a nursing care program established in 1955, The Nathaniel Witherell SNF (TNW) remains Greenwich, Connecticut's principal skilled nursing facility. Well-known in the community for its excellent resident care, the present TNW has the capacity to house 202 residents. TNW's current facility includes its original building and wing additions built in 1961 and 1975, totaling 122,000 square feet. TNW also owns the Pavilion building, a residential building adjacent to the main nursing home facility. The Pavilion is currently divided into five apartments, which are rented to low-income elderly town residents; this facility is not included in our overall study.

In recent years, TNW has identified a need to improve its facilities and has undergone several programming exercises and building feasibility studies. Current deficiencies not only detract from TNW's physical appeal, but also challenge its ability to meet changing needs and competitive standards.

In January 2006, TNW commissioned Robert A. M. Stern Architects (RAMSA) to study the nursing home's existing facility with an eye to both its physical condition and its ability to satisfy Witherell's Long Range Business Plan. This study provided a basis to develop a conceptual architectural plan for future building renovation and expansion, designed and programmed so that the renewal project would sustain TNW in a dynamic sub-acute care environment.

The project was completed from January through June 2006, with final cost information determined in September 2006.

Our current project cost estimate is \$36,883,119, based on the final approved design and construction costs estimated in the year 2009 at the mid-point of the project. These costs (in millions) are as follows:

New Construction:	\$14.6
Mechanical Infrastructure:	6.3
Admin Wing:	1.0
Tower Wing:	1.0
Demolition:	0.7
Construction Contingency:	1.2
2009 Escalation Factor:	3.6
Soft Costs:	5.2
Project Contingency:	<u>3.3</u>
TOTAL:	\$36.9

Please refer to Section 8 for a detailed roster of Cost Estimates

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1.2 Goals of the Project

The purpose of the project is to identify current and future renovation needs and building expansion needs for TNW, as well as to analyze departmental space needs and preferred adjacencies in order to plan the development of a proposed renovation and building project at TNW suitable and in keeping with the organization's Long Range Business Plan. Different options for sizes and locations of building additions were studied in order to determine a design which would be in line with and support the renewal directives as outlined in the Board's business plan. A cost estimate and project cost summary completed at the conclusion of the project will provide a basis for the Board to request funding and approvals for the building project.

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1.3 Facility Condition Audits and Results

The steps described below were implemented to achieve the goals of this project. In reviewing the possibility of retaining existing buildings, the goal was a useful life of not less than 15 years.

Existing Facility Conditions Audit – ENTECH Engineering:

In order to evaluate existing building deficiencies and determine costs of current maintenance needs, RAMSA recommended that a thorough review of the facility's existing condition be performed prior to commencement of design work. Members from Entech Engineering's facility assessment group spent three days on site at the TNW documenting visible conditions in each room and interior area, roof surfaces, crawl spaces and exterior enclosure surfaces. In the weeks following, they developed lists of projects that would be necessary to bring the facility up to current maintenance standards.

The ENTECH Project cost recommendations totaling \$7,384,860 were broken down as follows:

Administration Building

Deferred Maintenance	\$1,445,190
Capital Renewal	766,309
Capital Improvements	<u>663,243</u>
SUBTOTAL	\$2,874,742

Tower

Deferred Maintenance	\$ 899,320
Capital Renewal	2,461,168
Capital Improvements	<u>50,282</u>
SUBTOTAL	\$3,410,770

West Wing

Deferred Maintenance	\$ 844,232
Capital Renewal	245,372
Capital Improvements	<u>9,744</u>
SUBTOTAL	\$1,099,348

The report compiled by Entech is available both in printed form and online to the Facilities Department at The Nathaniel Witherell. The online information is in editable format and may be changed to reflect work that has been completed or rescheduled. TNW may choose to implement any of the projects with current funding or the Board may ask to have certain projects incorporated into the larger building project.

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Existing Facility Structural Report – Robert Silman Associates:

In order to obtain more specific information on the facility's current structural condition, a structural engineer from the Robert Silman Associates firm visited the facility over the course of one day and completed a visual survey of the interior and exterior parts of the buildings.

The key finding of the report was that while the majority of TNW's facilities were structurally sound, water infiltration had caused minor damage to certain areas and was continuing unchecked. The report contained recommendations for sealing cracks in parts of the exterior building envelope, repairing leak areas on the roof and also rebuilding the retaining wall adjacent to the Pavilion structure.

Existing Facility Code Report – Philip R. Sherman, PE:

RAMSA also contracted with Phil Sherman to perform a code review of the current facility. Sherman visited the facility and documented the compliance and/or non-compliance of all spaces with current local and national building codes, local fire safety codes, as well as with the requirements set forth in the Americans with Disabilities Act.

All of these reports were used during the programming and design phases to determine the usefulness of keeping or proposing demolition for certain parts of the overall existing facility.

1.4 Programming – RAMSA & Bardwell Associates:

After completion and review of the facility condition reports, RAMSA and healthcare design consultant Bardwell and Associates commenced the programming phase of the project. The phase was instrumental in marrying the broad initiatives outlined in the business plan with the physical requirements needed to implement those ideas as well as the day-to-day operations of a nursing care facility. Bardwell and Associates also used the findings of the meetings to provide specific recommendations for how the short-term rehab program might be further defined to target the most viable market for TNW. The phase began with a two-day series of meetings with the TNW Board and various staff department representatives.

Key Findings of these and subsequent discussions are as follows:

- A. Members of the Board stated that a "transformation" of TNW was critical in meeting its business plan objective of an increased number of short-term rehabilitation stays. In subsequent discussion, Bardwell and Associates proposed that Stroke Rehabilitation services might be a specific rehab business model that would particularly suit the existing expertise and patient population at TNW.
- B. Nursing Staff indicated that they had insufficient space for work that required privacy and for their breaks during the day. Health care laws require privacy for certain communications between nurses and doctors and the current floor layouts do not allow for this. Staff members prefer to take their breaks on the floor where they work, but the current break areas are too small and crowded with workstations, coat racks, etc.

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- C. Rehabilitation staff noted that their general exercise area was not large enough to accommodate existing equipment and the required space for residents to rest between exercises. They also said that they needed more rooms for specialized rehab activities.

After gathering and recording all comments from the fact-finding meetings, Bardwell and Associates developed the Functional Assessment. The Assessment is a matrix document that utilizes predetermined criteria for an objective scoring of each building portion's potential for use as a residential wing. The Tower was the only portion deemed acceptable for this use. The team proceeded to the initial design phase to test alternates which would determine the fate of the West Wing and Administration Building.

In parallel with the assessment and design phases, Bardwell and Associates began to develop a program document that responded to existing conditions of the TNW, the Board's business plan, and proven department sizes at similar facilities.

1.5 Preliminary Concept Design / Programming Revisions

With a preliminary program in place, RAMSA first worked with Bardwell and Associates on a system for "decanting" the tower rooms to allow for the private staff space and family areas discussed in the programming interviews. In the final decanting proposal, each tower floor has one double room changed to a family room and two single rooms changed to staff areas. RAMSA reviewed the unit sizes that resulted from this decanting and determined that the current program of traditional nursing care could be facilitated in the existing building, while new short-term programs, such as stroke or other rehab might be located in a new part of the facility. With this as a basis for further development, RAMSA created five design options that reflected various strategies for demolition, renovation and new addition, all maintaining the required 202 beds.

The final recommended option was chosen in that it

- (1) offered the best solutions for the Long Range Business Plan
- (2) offered the best transition from the current physical plant to the renewed physical plant
- (3) maintained the full complement of 202 beds throughout all phases of construction and at the end of construction and renovation
- (4) offered the least disruption to the operations of Witherell
- (5) maintained the best flow of the existing circulation path in those buildings not recommend for demolition
- (6) provides for the most efficient addition to the existing square footage
- (7) maintains the front Administration Building, the "Signature Wing" of Witherell
- (8) has the least dramatic effect on the "Look" of Witherell and
- (9) creates a separate Rehab entrance, look and focus.

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1.6 Final Concept Design and Cost Estimate

RAMSA's final concept design proposal (option C2) was a more developed version of the preliminary option C design. The design includes a two-story addition enclosing a courtyard to the northwest of the existing Tower element. A dining room was located at the juncture between Tower and addition on the 2 floors in order to provide for separation between wings since the Board felt that separate programs were preferred. RAMSA felt that the location of the addition at the rear of the site would let the original Administration building continue to be the face of Witherell to the public. A lower-profile addition would be more in keeping with the style of the surrounding area and could be designed as a "background building".

The layout of the proposed design also allowed for elimination of quad rooms and an increase in the number of single rooms in the facility:

Room Distribution

	Existing	Proposed
Quads	10	0
Doubles	68	82
Singles	26	38
TOTAL	104 rooms	120 rooms

AREA

Existing Building Area (real sf, including that area not counted in FAR calculations)

Admin Building

Basement:	16,133 sf
First Floor:	18,438 sf
Second Floor:	4,550 sf
Third Floor:	3,300 sf
Subtotal #1	42,421 sf

West Wing Building (will be demolished)

Basement:	12,472 sf
First Floor:	12,028 sf
Subtotal #2	24,500 sf

Tower

Basement:	13,440 sf
First Floor:	13,440 sf
Second Floor:	13,440 sf
Third Floor:	13,440 sf
Fourth Floor:	13,084 sf
Subtotal #3	66,844 sf

TOTAL AREA TO REMAIN 109,265 sf (excludes West Wing)

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New Construction

New Addition	
Ground Floor:	18,720 sf
<u>First Floor:</u>	<u>18,720 sf</u>
TOTAL NEW ADDITION	37,440 sf
<u>TOTAL FACILITY AREA</u>	<u>146,705 sf</u>

For the calculation of FAR, Witherell’s primary land supports 135,044 square feet of building. However, the 3.502 acres leased to Parsonage Cottage is being underutilized by Parsonage square footage. This then supports an additional approximately 10,000 square feet. The total of 146,705 square feet above includes approximately 10,000 square feet allocated from Parsonage Cottage and includes approximately another 10,000 square feet at Witherell which is 70% below grade and is not counted against the FAR calculation.

RAMSA’s initial proposal assumed substantial interior layout changes in the Administration Building and exterior upgrades to the existing residential building additions. The initial cost estimates based on these assumptions were much greater than the anticipated construction cost and TNW requested that RAMSA revise the construction scope in order to lower the cost estimate.

Accordingly, RAMSA developed a revised scope and cost estimate, including non-construction “soft costs” that would better meet TNW’s desired business plan and budget. This budget reflects the overall massing and plan layout in the approved scheme, but assumes a much lower level of renovation to the interior and exterior of the existing building, as well as a lower level of detail and building material in the addition. The Board accepted these numbers and confirmed the soft costs internally.

1.7 Estimated Project Costs

A spreadsheet with estimated construction and non-construction costs can be found in Section 8:

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1.8 Final Recommendations

The final concept design, presented as option C2, has an associated project budget of \$36,883,119, based on the final approved design, current construction costs and estimated non-construction costs. Construction costs are estimated to be \$28,375,108, non-construction costs are estimated to be \$5,155,000 and an escalation factor of 10% was applied to both to reach the total estimated cost.

It is our recommendation that TNW proceed in a timely fashion to obtain the approvals and funding required for completion of the renovation and expansion project, in order to meet the agreed-upon budget (estimated in 2009 dollars and inflated @ 10% per year). The project budget document is inclusive of typical hard and soft costs for a project of this nature, but it will be important for TNW to keep close track of these costs and include any new or changed costs that may arise as the project moves forward.

In order to stem any further deterioration in the existing buildings, funding for Deferred Maintenance projects from the Entech study should be made available as soon as possible. We also advise that the TNW Board authorize funding for design services (including reimbursable expenses) so that the project continues to move forward at a steady pace.

The allocations for these two immediate need items are as follows:

Priority Maintenance work	\$2,911,703 (ranked Priority #1 immediate in the ENTECH analysis)
Design Services	<u>3,600,000</u>
TOTAL	\$6,511,703

The findings from the facilities condition reports should be shared with the consultant team selected to complete the project, as the improvements recommended in the reports should be included in the scope of the renovation / addition project. Recommendations regarding local fire safety code should be addressed as soon as possible.

We strongly recommend that the Board work with an advisor in the construction management or construction project management field. We understand from the Board that they intend to work with the Greenwich Town government and utilize resources from relevant town departments to meet their project management needs.

The project team is confident that we have developed a design that accommodates the Board's new business plan in a cost-efficient manner, with strategic renovations, systems upgrades and modest new building additions.

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1.9 Construction Timeline

With TNW input, RAMSA estimates that this project will require 18 months of new square footage construction and another 18 months of renovation and project completion with punchlist items etc.

8.1 Acknowledgements

The project benefited from the invaluable participation of the following board members, staff and consultant team members:

Nathaniel Witherell Current and Former Board Members:

David Ayres
Lloyd Bankson
Ron Dreskin
Don Fritz
Ellen Isidro
Kurt Krauss
Andy Miller
David Ormsby
Thomas Saccardi
Frank Scarpa, MD
Fred Siefert, MD
Leslie Tarkington
Chris Thurlow
Paul Toretta

TNW Administration

TNW Director William Kowalewski
TNW Director of Nursing Lynn Bausch
TNW Facilities Director Jack Hornak
Former TNW Director Christine Clark
Former TNW Facilities Manager Dan Rossini

The entire staff of The Nathaniel Witherell SNF

Greenwich First Selectman Jim Lash

Entech Engineering, Inc.

Matthew Lloyd
Pete Olsen, PE
George Ziegler

Robert Silman Associates

Pat Arnett

Bardwell and Associates

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**NATHANIEL WITHERELL
SKILLED NURSING FACILITY**

**FACILITY ANALYSIS,
PROGRAMMING,
AND
CONCEPT DESIGN**

**January 29, 2007
Robert A.M. Stern Architects**
