HOSPITALITY STEWARDSHIP INTEGRITY RESPECT HUMOR

The Nathaniel Witherell Project Renew Review of Long-Range Plan

Client Confidential

Town of Greenwich
Greenwich, Connecticut

September 6, 2011

HEALTH DIMENSIONS GROUP
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EXECUTIVE SUMMARY

Background

Several years ago the Town of Greenwich (Town) started an initiative, Project Renew, to renovate The Nathaniel Witherell Rehabilitation and Nursing Center (TNW). As part of Project Renew, the board members and staff of TNW prepared a business plan entitled *Nathaniel Witherell Long Range Plan* (LRP). This long-range plan included 30-year financial projections, the critical aspect of which is the rehabilitation and upgrade of TNW's physical facilities. At the request of the Town Board of Estimate and Taxation (BET), in 2009 Health Dimensions Group (HDG) performed a review of a previous version of the projections. Subsequent to the completion of our review, the scope of Project Renew changed. The Town expressed an interest in obtaining another independent and objective appraisal of specific categories detailed in the revised LRP from a qualified consultant in order to assist them in evaluating whether to proceed with Project Renew.

The Town engaged HDG to review TNW's revised long-range plan. The goal of this review was to verify the reasonableness of projected revenue and operating expenses contained in the financial projections prepared by TNW staff and board members. Specifically, the Town requested a review of the occupancy, payor mix, and reimbursement rate assumptions that were used to determine projected revenue. The Town has also requested a review and evaluation of direct patient care costs, support care costs, non-payroll costs, construction costs, debt service assumptions, and the capital expenditure assumptions used to determine projected expenses and cash flow.

Approach and Methodology

Capitalizing on HDG's previous experience with this project, HDG began with the submission of a data request in May 2011. A review of the data took place over the course of three months and included the following phases:

- Phase 1: Capital Improvements Cost Review
- Phase 2: Verification of Projected Revenue
- Phase 3: Verification of Projected Operating Expenses
- Phase 4: Analysis of Cost of Capital Model
- Phase 5: Recommendations and Report

In July, a report of preliminary findings was presented at the BET monthly meeting. Following this presentation, HDG updated the preliminary report recommendations to reflect the following:

- Revised TNW FY2011 financial data
- Changes in Medicare reimbursement rates published by the Centers for Medicare and Medicaid Services (CMS)
- Feedback on the preliminary findings from the BET
- Discussions with TNW board members and staff
- Additional analysis by HDG

This report represents our findings and assessments relative to the above steps. The following sections address phases 1–4. Recommendations are included in the applicable section and highlighted in bold print.

Summary Findings

Table 1 on the following page contains a summary of the financial impact of recommendations included within this report.

Table 1: Impact of Recommendations: Final Report

Town of Greenwich
The Nathaniel Witherell
Project Renew Long Range Plan Review

Impact of Recommendations	30 Year Cumulative Projections					Total Cash Need
	Revenues	Expenses	Net Income	Debt Principal	Cash Flow	
TNW Model (Baseline)	$1,065,707,476	$1,020,714,346	$ 44,993,130	$24,340,467	$ 20,652,663	
Elimination of Fund Raising/Subsidy	$ (7,400,000)	$ -	$ (7,400,000)	$ -	$ (7,400,000)	
Revised Baseline	$1,058,307,476	$1,020,714,346	$ 37,593,130	$24,340,467	$ 13,252,663	$ 4,655,698
Impact of Preliminary Findings	$ (25,852,852)	$ 38,108,528	$ (63,961,380)	$ -	$(63,961,380)	$ 46,053,019
Adjusted Model (Preliminary)	$1,032,454,624	$1,058,822,874	$ (26,368,250)	$24,340,467	$(50,708,717)	$ 50,708,717
Additional Findings:						
Update FY 2011 Data	$ (5,827,817)	$ 2,036,273	$ (7,864,090)	$ -	$ (7,864,090)	
Payor Mix	$ 6,902,223	$ 2,863,588	$ 4,038,635	$ -	$ 4,038,635	
Private Pay Rate	$ 10,101,687	$ 151,525	$ 9,950,162	$ -	$ 9,950,162	
Medicare Rate	$ 13,039,145	$ -	$ 13,039,145	$ -	$ 13,039,145	
Medicaid FRV	$ 1,118,412	$ -	$ 1,118,412	$ -	$ 1,118,412	
Salary Adjustments	$ -	$ (2,707,213)	$ 2,707,213	$ -	$ 2,707,213	
Benefits Adjustments	$ -	$ 9,236,620	$ (9,236,620)	$ -	$ (9,236,620)	
Non-Salary Expense Inflation	$ -	$ (19,644,245)	$ 19,644,245	$ -	$ 19,644,245	
Part B Expense Calculation	$ -	$ 204,442	$ (204,442)	$ -	$ (204,442)	
Insurance Adjustment	$ -	$ 1,170,592	$ (1,170,592)	$ -	$ (1,170,592)	
Debt Service Adjustment	$ -	$ 1,424,499	$ (1,424,499)	$ (538,207)	$ (886,292)	
Construction Period Staffing	$ -	$ (545,426)	$ 545,426	$ -	$ 545,426	
Total Impact of Changes	$ 25,333,650	$ (5,809,345)	$ 31,142,995	$ (538,207)	$ 31,681,202	$(28,810,103)
Revised Model Before Fund Raising	$1,057,788,274	$1,053,013,529	$ 4,774,745	$23,802,260	$(19,027,515)	$ 21,898,614

Impact Analysis Conclusions

The original LRP projections showed the following, excluding Town subsidies and contributions from fund-raising:

- Cumulative cash flow of $13.3 million over the 30-year projection period
- Total cash need of $4.7 million to fund cash deficits until 2018, when the facility achieves breakeven cash flow and becomes self-sustaining
- Cumulative cash flow breakeven in 2030

Preliminary LRP projections showed the following:

- Cumulative cash flow of ($50.7) million over the 30-year projection period
- Total cash need of $50.7 million to fund cash deficits
- Failure to achieve positive cash flow after the construction period begins
- A cumulative cash flow breakeven does not occur during the projection period

The recommended changes for the final LRP projections show the following:

- A $31.7 million increase in cumulative cash flow
- A reduction to the total cash need of $28.8 million

The final LRP projections show the following:

- Cumulative cash flow of ($19.0) million over the 30-year projection period
- Total cash need of $21.9 million to fund cash deficits until 2035, when the facility achieves breakeven cash flow and becomes self-sustaining
- A cumulative cash flow breakeven does not occur during the projection period

The cash deficit of $21.9 million is accumulated over the 20-year debt device period. Fund-raising dollars and/or a subsidy from the Town will be required to fund cash deficits during this time.

Key Changes From Preliminary Findings

Final LRP results show a significant improvement from the projections presented in the preliminary report. The final LRP projections include both positive and negative changes from the preliminary LRP.

Positive changes include:

- A reduction in non-salary expense due to a decrease in the annual inflation factor
- Increased Medicare revenue due mainly to a more favorable than expected final FY2012 rate published on August 1, 2011.
- Increase in private pay revenue due mainly to an increase in the annual inflation factor
- More favorable payor mix due to additional analysis of data provided by TNW staff and refinement of the Market Demand Analysis
- Favorable adjustments to the Medicaid fair rental value (FRV) calculation.

Negative changes include:

- Increased labor expenses due to revised models provided by TNW staff
- Unfavorable adjustments as a result of using final FY2011 financial data
- Unfavorable adjustments to insurance expense projections

These changes are addressed in detail in other sections of this report.

PHASE 1: CAPITAL IMPROVEMENTS COST REVIEW

Scope of Work

The goal of phase 1 was to critically assess the cost and timing assumptions related to building renovations detailed by TNW's architect. Based on HDG's review of available data, we:

- Provided commentary as to whether the cost estimates were reasonable for a facility of 202 beds.
- Reviewed the construction timetable and provided commentary regarding whether it was achievable.
- Determined, to the extent possible, whether the allocated space, square feet, room size, etc., were suitable and reasonable, structurally, to support a 202-bed facility, per state of Connecticut licensing requirements.

Findings

HDG and Welsh Construction, an HDG consulting partner, performed a review of materials provided by TNW.

- The revised proposed construction cost budget, phasing plan, and project schedule
- The conceptual architectural drawings

Data provided was very limited and preliminary. Construction drawings were limited and very conceptual in nature and lacked civil, structural, mechanical, and electrical information. Specifications were not provided. The written scope narrative describing the project was extremely limited.

Because of the lack of detailed information, HDG was only able to perform a high-level analysis. The full report is included in **Appendix A**. The following are key findings from our analysis:

- In general, the overall budget of $22.5 million and timetable of 16 months is reasonable and obtainable
- Some of the soft cost items are higher than expected. These include:
    - Builders risk insurance.
    - Architect/engineer (A/E) reimbursable expenses.
    - Geotech subsurface investigation (may not be needed).
    - Preconstruction construction manager (CM) fees.

Summary of Phase 1 Recommendations

Particular attention must be placed on managing the design process to be completed within the established budget. Proactive milestone budget exercises must be completed. Regular and ongoing plan review should be part of the services of the preconstruction CM. Terms and conditions for the contractor's general conditions and fees, if not agreed upon, must be negotiated in advance of agreeing on a final number. An open book subcontractor bid process should be established where the owner can view and comment on the results of the final bidding process. With the project scope sufficiently vague, and without establishing the appropriate checks and balances within the preconstruction phase, there is a high probability for not obtaining the project budget.

Because of the conclusions in our previous analysis, HDG strongly urges the use of an owner's representative or construction consultant to participate in the preconstruction phase, if not beyond, to represent the owner's interests in the items outlined above. In HDG's opinion, the cost of an additional consultant will be offset in the savings to the construction budget.

PHASE 2: VERIFICATION OF PROJECTED REVENUES

Scope of Work

The goal of phase 2 was to analyze the revenue assumptions and calculations within the long-range financial projections based on our familiarity with occupancy and Medicare and Medicaid payment issues. Specifically we:

- Reviewed the occupancy and payor mix assumptions, supplemented with our overall industry knowledge. Strong consideration was given to fluctuations in payor mix percentages that could impact projections during the reporting period. This analysis involved the following steps:
    - **Resident Origin and Referral Source Analyses:** HDG examined the community's current resident population to establish an appropriate market area; this step aided in identifying likely referring hospitals and the location of competing facilities. The volume of residents from within and outside the market area helps to drive other assumptions in quantitative analyses. In the referral source analysis, we reviewed referral source trends (volume of referrals by facility and payor type). Both analyses provided a foundation for identifying current market share.
    - **Payor Mix Analysis and Admission Trend:** HDG reviewed the facility's current and historical payor mix to identify trends and to refine the market share estimate. Historical admission trends were also reviewed.
    - **Demand Study:** HDG quantitatively established the demand for both long-term care and short-stay (i.e., Medicare Part A) skilled nursing beds in the market area. The analysis included a focus on the availability of Medicare discharges from market area referral sources. The study encompassed the previously determined market area definition, the socioeconomic and demographic attributes of this market, market area competition, and appropriate bed potential. The demand study utilized commercially available information regarding hospital discharges in the market area. Specifically, the demand study included:
        - Definition of a geographic market area for TNW.
        - Characteristics of the market area population including 2011 estimates and 2016 projections.
        - Analysis of discharges from market area hospitals to skilled nursing facilities (SNFs).
        - Market supply/oversupply and unit potential analysis for skilled nursing beds based on industry standards for market penetration and need.

Upon conclusion of the market area review and assessment, HDG had sufficient information to determine the reasonableness of occupancy and payor mix assumptions in the long-range financial projections.

- Review, verification, and recalculating of payment rates for all payors. Particular attention was devoted to Medicaid since it is, by far, the facility's largest payor source. Medicare rates were verified utilizing the most current information regarding future rate increases. Private pay payment was critically challenged based on HDG's assessment of the facility grounds and its general location. Our own internal databases were used to determine reasonableness.
- A detailed analysis of the methodology used to determine Medicaid rates. More specifically, HDG understands new construction will have an influence on the capital cost portion of the rate. We incorporated projections of the *Fair Rental Value* likely to be used by the state in future periods.
- A review of all revenue inflation factors for reasonableness based on our knowledge of the industry as well as historical trends.

Market Area and Demand Analysis

A market area and demand analysis was performed to determine the projected demand for total long-term care beds and short-term sub-acute care beds. The full report is included in **Appendix B**. The following are the key findings:

Market Area

The market area was determined by analyzing the current census at TNW; the market area consists of eight ZIP codes, which account for 147 (80.3 percent) of the 183 residents.

Demographics of the Market Area

Both the workforce and senior population were analyzed: the workforce consists of persons 18 to 64 years of age. From 2011 to 2016, this group is projected to increase by 225 persons (0.2 percent), from 96,348 persons in 2011 to 96,573 persons in 2016. The senior population consists of persons 65 years of age and older; the senior population is projected to increase by 2,320 persons (10.4 percent), from 22,360 persons in 2011 to 24,680 persons in 2016.

Competitor Assessment

There are eight SNFs located in the market area. All eight facilities are Medicare-certified; only seven are Medicaid-certified.

The eight SNFs have a total of 1,084 beds with 170 private rooms. TNW accounts for 18.6 percent of the total nursing home beds and 15.3 percent of the total private rooms. In 2009, TNW had a market share of 15.2 percent of Medicare patient days in the market area.

Nursing Home Bed Demand

Bed demand was calculated using current state of Connecticut utilization, by age cohort, of nursing home beds. In 2011, there is a projected unmet demand for 103 beds. Due to the projected continued decrease in utilization, the unmet demand is projected to decrease to 42 beds by 2016.

Based on the analysis, TNW should be able to continue to support current nursing home bed capacity.

Short-Term Care Bed Analysis

Considering historical referral patterns, distance, and drive time, it is assumed the two primary referral sources for short-term care beds will be Greenwich Hospital and Stamford Hospital. The two facilities average 3.9 miles and 12.5 minutes from TNW.

However it is important to note there is considerable competition. There are seven nursing homes located within the market area served by TNW. In addition, there is an average of 12.5 nursing homes located within 10 miles of the two primary referring hospitals and 94.5 nursing homes within 25 miles.

Short-Term Care Bed Potential

Not including readmissions, which are defined as Medicare patients that originated from the nursing home, from the two primary referring hospital discharges, there is a projected short-term care bed average daily census (ADC) of 142. Using the Connecticut average length of stay (ALOS) for subacute patients, a 40-bed subacute unit could be supported by capturing 20 percent of potential discharges from the two primary referring hospitals, having an ADC of 4 non-Medicare commercial patients, filling 10 percent of the beds with other referral sources, and assuming 90 percent occupancy. At 90 percent occupancy, it is assumed the 40-bed unit would maintain an ADC of approximately 36 persons.

In addition to the subacute unit, TNW projects that it will maintain an ADC of approximately six Medicare readmissions. These are persons who reside in long-term care but necessitate rehabilitation after a hospital stay.

Between the 32 Medicare ADC for new short-term care admissions and 6 readmissions, it is possible for TNW to support an ADC of 38 Medicare/Medicare Advantage patients.

However, it is important to note this is a large increase from the current census of 25 Medicare ADC. In addition, it would require a market share of 20 percent, which is greater than TNW's percentage of total nursing home beds in the market area (18.6 percent). Although possible with the renovation, it will be challenging to divert this much market share from other nursing homes.

Occupancy Projections

In FY2011 TNW had a total ADC of 186.92 residents, or 92.5 percent occupancy of the 202 total beds available. This represents a decrease from 93.2 percent occupancy in FY2010.

The LRP assumes an ADC of 190 residents, or 93.9 percent occupancy in FY2012. HDG believes this is too high given the historical trend of declining census over the last two years. **We recommend that this occupancy level be adjusted to the FY2011 level of 186.92 ADC, or 92.5 percent occupancy.** See tables 4 and 5 in the payor mix section for more details.

The LRP assumes a reduction to an ADC of 171 residents, or 85 percent occupancy, during the renovation period (FY2013-FY2014). It has been our experience that during a facility renovation, census typically decreases by 15 percent-20 percent due to noise, dust, and other factors that cause residents to move. We believe the minimal reduction in census that is projected is achievable as long as the project is very carefully managed. If occupancy levels cannot be maintained during the renovation period, lost revenue could be significant.

HDG is, however, proposing a slight change in the construction period census and occupancy levels. **We recommend adjusting FY2013 ADC to 174.18, or 87.5 percent occupancy based on 199 available beds, and FY2014 ADC to 171.50, or 88.4 percent occupancy based on 194 available beds.** See tables 4 and 5 in the payor mix section for more details.

The post-construction period stabilized ADC is projected to be 192 residents, or 95 percent occupancy. We believe this is a reasonable assumption.

Payor Mix Projections

The original census projections assumed a 44-bed short-term unit and 158 long-term care beds. The proposed configuration has subsequently changed to reflect a 40-bed short-term care unit and 162 long-term care beds. Tables 2 and 3 on the following page contain a summary of the proposed payor mix based on ADC and percentages.

Table 2: Average Daily Census Projections: Revised LRP

THE NATHANIEL WITHERELL									
Census - LRP Projection									
	Actual	Projected							
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Long Term ADC:									
Private Pay	46.55	47.46	40.29	39.07	52.48	52.48	52.48	53.43	53.43
Commercial Ins	-	0.02	0.04	0.04	0.47	0.05	0.05	0.05	0.05
Medicaid	112.21	111.86	101.27	98.21	96.17	96.60	96.59	95.65	95.65
Medicare A	6.30	2.65	7.61	7.38	8.01	8.01	8.01	8.01	8.01
Total	**165.06**	**161.99**	**149.22**	**144.70**	**157.14**	**157.14**	**157.14**	**157.14**	**157.14**
Occupancy %	98.84%	97.00%	90.99%	92.76%	97.00%	97.00%	97.00%	97.00%	97.00%
Short Term ADC:									
Commercial Ins	3.67	3.04	2.72	2.93	2.82	3.17	3.52	3.87	4.22
Medicare A	18.18	24.61	21.96	23.67	32.38	32.03	31.68	31.33	30.98
Total	**21.86**	**27.65**	**24.67**	**26.60**	**35.20**	**35.20**	**35.20**	**35.20**	**35.20**
Occupancy %	62.45%	79.00%	70.50%	70.00%	88.00%	88.00%	88.00%	88.00%	88.00%
Total ADC:									
Private Pay	46.55	47.46	40.29	39.07	52.48	52.48	52.48	53.43	53.43
Commercial Ins	3.67	3.06	2.76	2.97	3.29	3.21	3.57	3.92	4.27
Medicaid	112.21	111.86	101.27	98.21	96.17	96.60	96.59	95.65	95.65
Medicare A	24.48	27.26	29.57	31.05	40.40	40.05	39.69	39.34	38.99
Total	**186.92**	**189.64**	**173.89**	**171.30**	**192.34**	**192.34**	**192.34**	**192.34**	**192.34**
Occupancy %	92.5%	93.9%	87.4%	88.3%	95.2%	95.2%	95.2%	95.2%	95.2%

Table 3: Payor Mix Projections: Revised LRP

THE NATHANIEL WITHERELL									
Payor Mix - LRP Projection									
	Actual	Projected							
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Long Term ADC:									
Private Pay	28.20%	29.30%	27.00%	27.00%	33.40%	33.40%	33.40%	34.00%	34.00%
Commercial Ins	0.00%	0.01%	0.03%	0.03%	0.30%	0.03%	0.03%	0.03%	0.03%
Medicaid	67.98%	69.06%	67.87%	67.87%	61.20%	61.47%	61.47%	60.87%	60.87%
Medicare A	3.82%	1.63%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Short Term ADC:									
Private Pay	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Commercial Ins	16.81%	11.00%	11.00%	11.00%	8.00%	9.00%	10.00%	11.00%	12.00%
Medicaid	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Medicare A	83.19%	89.00%	89.00%	89.00%	92.00%	91.00%	90.00%	89.00%	88.00%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Total ADC:									
Private Pay	24.90%	25.03%	23.17%	22.81%	27.29%	27.29%	27.29%	27.78%	27.78%
Commercial Ins	1.97%	1.61%	1.59%	1.73%	1.71%	1.67%	1.85%	2.04%	2.22%
Medicaid	60.03%	58.99%	58.24%	57.33%	50.00%	50.22%	50.22%	49.73%	49.73%
Medicare A	13.10%	14.37%	17.00%	18.13%	21.00%	20.82%	20.64%	20.45%	20.27%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

HDG offers the following observations and comments regarding the previous census and payor mix projections:

- The private pay census jumps from an ADC of 39 to 52 in 2015, when renovations are complete. We believe it will take a longer period of time to achieve the stabilized census projection of 52.64: we propose a slower ramp-up.
- We propose eliminating the commercial insurance census from the long-term care unit.
- With a slower ramp-up rate for private pay you will likely need to increase your Medicaid census in FY2015 to achieve occupancy projections.
- We proposed adjusting the Medicare long-term care ADC to 6.3 based on FY2011 data provided by TNW.
- As a result of a higher than expected FY2011 census and the addition of some new managed care contracts, we propose increasing commercial census to a stabilized ADC of 4.93 by FY2013.
- Medicare short-term census is showing a dramatic increase in FY2015 and then a gradual reduction over the next four years. We propose adjusting this census to the stabilized ADC of 30.27 in FY2015 and beyond.

Considering the above findings, we recommend adjusting the payor mix projections as reflected in Tables 4 and 5.

Table 4: HDG Proposed Average Daily Census Projections

THE NATHANIEL WITHERELL									
Census - HDG Proposed									
	Actual	Projected							
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Long Term ADC:									
Private Pay	46.55	46.55	43.55	40.55	46.55	49.55	51.55	52.55	52.64
Commercial Ins	-	-	-	-	-	-	-	-	-
Medicaid	112.21	112.21	99.83	98.05	104.29	101.29	99.29	98.29	98.20
Medicare A	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Total	**165.06**	**165.06**	**149.68**	**144.90**	**157.14**	**157.14**	**157.14**	**157.14**	**157.14**
Occupancy %	98.84%	98.84%	91.27%	92.88%	97.00%	97.00%	97.00%	97.00%	97.00%
Short Term ADC:									
Commercial Ins	3.67	3.68	4.93	4.93	4.93	4.93	4.93	4.93	4.93
Medicare A	18.18	18.18	19.57	21.67	30.27	30.27	30.27	30.27	30.27
Total	**21.86**	**21.86**	**24.50**	**26.60**	**35.20**	**35.20**	**35.20**	**35.20**	**35.20**
Occupancy %	62.45%	62.46%	70.00%	70.00%	88.00%	88.00%	88.00%	88.00%	88.00%
Total ADC:									
Private Pay	46.55	46.55	43.55	40.55	46.55	49.55	51.55	52.55	52.64
Commercial Ins	3.67	3.68	4.93	4.93	4.93	4.93	4.93	4.93	4.93
Medicaid	112.21	112.21	99.83	98.05	104.29	101.29	99.29	98.29	98.20
Medicare A	24.48	24.48	25.87	27.97	36.57	36.57	36.57	36.57	36.57
Total	**186.92**	**186.92**	**174.18**	**171.50**	**192.34**	**192.34**	**192.34**	**192.34**	**192.34**
Occupancy %	92.5%	92.5%	86.2%	84.9%	95.2%	95.2%	95.2%	95.2%	95.2%

Table 5: HDG Proposed Payor Mix Projections

THE NATHANIEL WITHERELL									
Payor Mix - HDG Proposed									
	Actual	Projected							
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Long Term ADC:									
Private Pay	28.20%	28.20%	29.10%	27.99%	29.62%	31.53%	32.81%	33.44%	33.50%
Commercial Ins	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Medicaid	67.98%	67.98%	66.70%	67.67%	66.37%	64.46%	63.19%	62.55%	62.49%
Medicare A	3.82%	3.82%	4.21%	4.35%	4.01%	4.01%	4.01%	4.01%	4.01%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Short Term ADC:									
Private Pay	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Commercial Ins	16.81%	16.83%	20.12%	18.53%	14.00%	14.00%	14.00%	14.00%	14.00%
Medicaid	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Medicare A	83.19%	83.17%	79.88%	81.47%	86.00%	86.00%	86.00%	86.00%	86.00%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Total ADC:									
Private Pay	24.90%	24.90%	25.00%	23.65%	24.20%	25.76%	26.80%	27.32%	27.37%
Commercial Ins	1.97%	1.97%	2.83%	2.87%	2.56%	2.56%	2.56%	2.56%	2.56%
Medicaid	60.03%	60.03%	57.31%	57.17%	54.22%	52.66%	51.62%	51.10%	51.05%
Medicare A	13.10%	13.10%	14.85%	16.31%	19.01%	19.01%	19.01%	19.01%	19.01%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Medicare Census

Medicare census is the key assumption for the short-term care unit and one of the key drivers in determining the financial sustainability of Project Renew. In FY2011, TNW had an ADC of approximately 19 short-term residents with Medicare Part A or Medicare Advantage. The revised LRP includes a Medicare ADC projection of 31 short-term residents. In addition 6 Medicare residents are projected in long-term care beds for a total Medicare ADC of 37.

To achieve the above census projections would require a 63 percent increase in short-term Medicare and a 67 percent increase in the capture rate for discharges from the two primary referring hospitals in the market area. Although we believe it is possible to achieve these census projections, we feel it will be a challenge based on the following factors:

- TNW is in an extremely competitive market. An increase in market share will require diversion of Medicare patients from other long-term care facilities in the market. A renovated facility will help but other facilities are likely to make improvements as well. Competitive strength and strategic initiatives need to be

developed by key team members to effectuate the necessary improvement in census.

- TNW does not have a formal marketing plan in place to achieve census improvements. Staff has communicated the approach of "if we build it they will come" as it relates to census capture rate improvement. Based on a subsequent conversation with the leadership team, there does not seem to be a marketing strategy behind achieving needed census goals. Bed management and admission decisions would typically be facilitated by a trained individual who is given the authority to make admission decisions versus a more prolonged committee approach.
- TNW has received a current score of 4/5 in Health Inspections, 4/5 in Nursing Home Staffing, 5/5 in Quality Measures, and overall 5-star rating. The team communicated they have had many positive testimonials from residents regarding the care they received. Having a high 5-star rating is an asset however, two other facilities in close proximity to TNW have the same overall rating. It is likely that competitor facilities are receiving the same type of testimonials from their residents. Currently, too much emphasis is placed on the 5-star rating. While it is no doubt a positive achievement this is not something that consumers typically utilize when making an admission decision. Nor is it "easily" accessible to the consumer when choosing a skilled nursing facility. Referral generation is developed in other more tangible and intangible elements. Salient aspects such as physician referral relationships, hospital rounding and access, admission response and turnaround timeframes, and clinical programmatic development are just a few of the essentials that need to be strategically planned and implemented to impact desired census at TNW.
- Health care reform legislation is bringing about many changes in the long-term care industry. The creation of accountable care organizations (ACOs) makes it very important for facilities to analyze their current rates of hospital readmissions and to have discussions with area health systems in order to be included in the ACOs. Other organizations are likely already preparing for this change. Based on recent conversations with TNW staff, detailed readmission data has currently not been developed to demonstrate readmission rates by the key disease diagnosis areas. In light of health care reform, TNW has not established clinical pathways in key areas to impact readmissions with their main referring hospitals. Nationally, progressive organizations have established clinical pathways and care delivery models to impact readmission rates. TNW needs to work aggressively in this area to be more effective and improve census in order to realize forecasted census figures.

To ensure that the above projections can be achieved we strongly recommend that TNW develop a formal marketing strategy, change the current "if we build it they will come" mentality, and fully prepare for health care reform changes that will take place over the next three years. If the formal marketing plan document needs to be labeled "proprietary" in order to prevent competitor access, then internal legal avenues should be established to protect that information when it is developed so it will not fall into the hand of the public domain as other municipal operations have been able to achieve. Having that information "in our heads" does not serve the best interest of the operation nor does it assist the organization in having a solid, managed, strategic marketing plan and outcome goals that can be met.

Revenue Projections

Private Pay

FY2011 private pay average revenue per day was $435. The TNW board of directors recently approved a measure to change the annual increase to occur on August 1 rather than February 1 of each year. **To account for this change in the LRP, we recommend adjusting the FY2012 inflation factor to 3.75 percent.**

The original LRP assumed a 2.5 percent annual inflation factor in FY2012-FY2014 and a 2.25 percent annual increase thereafter. TNW staff members have subsequently proposed to increase the annual inflation factor to 2.5 percent for all years. Annual private pay rate increases have averaged 4.08 percent over the last five years with a range of 2.72 percent to 5.12 percent. **Based on this information, we believe that a 2.5 percent annual increase is reasonable and therefore recommend accepting the proposed change to a 2.5 percent annual increase for the life of the model.**

The LRP contains private pay rate adjustments during the construction period to account for the conversion of balcony rooms to semiprivate (a decrease of $36.93) and the conversion of quad rooms to semiprivate (an increase of $6.68). Our analysis indicates that these amounts need to be adjusted. **We recommend adjusting the impact of the conversion of balcony rooms to a $1.86 per day decrease and conversion of quad rooms to a $3.54 per day increase.**

In FY2015 when facility renovations are complete, our analysis suggests that the private pay rate will need to be adjusted to reflect the new bed configuration. **We recommend decreasing the FY2015 private pay rate by $1.93, to adjust the total rate to $485.29.**

Commercial Insurance

The FY2011 commercial insurance average revenue per day was $425. The LRP assumes a 1.5 percent annual inflation factor in FY2012-FY2013, a 2.0 percent increase in FY2014, and a 2.25 percent annual increase thereafter. We believe these assumptions are reasonable for purposes of the financial projections.

Medicaid

FY2011 Medicaid average revenue per day was $242. The LRP assumes a 1.0 percent inflation factor in FY2012, 1.5 percent in FY2013, 2.0 percent in FY2014, and a 2.25 percent annual increase thereafter. The state of Connecticut has proposed a 3.77 percent increase in rates in FY2012 and a 0.33 percent increase in FY2013. These proposed increases will be offset, in part, by proposed increases in the provider tax. The proposed rate increases have not been officially approved but all indications show they will be approved retroactive to July 1, 2011. **We recommend changing the FY2012 and FY2013 inflation factors to reflect these proposed rate increases.**

Medicaid inflation factors for FY2014 through FY2038 are difficult to predict at this time due to state economic uncertainty and changes related to health care reform. For purposes of the LRP we believe these assumptions are reasonable. However, since Medicaid is the largest payor source we believe it is very important to run a sensitivity analysis to determine the impact of reduced rates of increase. **We recommend that a sensitivity analysis be performed using a 1.0 percent annual inflation factor for FY2014 through FY2038 to measure the potential impact of lower than expected payments.**

The state of Connecticut uses the FRV allowance system to reimburse providers for property costs. The key components of the FRV are:

- FRV yields a constant amount each year in lieu of depreciation and interest expense.
- FRV is calculated by amortizing the base value of property over the useful life and applying a rate of return (ROR) to the base value.
- The ROR is linked to the Medicare borrowing rate and was 4.4370 percent in 2010, down from 4.5150 percent in 2009. The 10-year average is 6.36095 percent but has been declining in recent years.
- The FRV for an approved certificate of need (CON) is not subject to the annual limits on rate increase that are applied to operating and capital-related costs.

The LRP includes an increase of $13.74 per Medicaid patient day to account for FRV on allowable Project Renew construction costs. The calculation used in the LRP is consistent with the formula established by the state of Connecticut. We agree with this methodology.

The final FRV will depend on the ROR used by the state at the time of project completion. A ROR of 5 percent has been used in the LRP. **We recommend performing a sensitivity analysis using a 4 percent ROR to determine the impact on cash flow projections if the current trend of declining ROR continues.**

In our preliminary findings we recommended reducing the FRV by $1.55 to reflect the elimination of the minimum FRV allowance upon completion of Project Renew. Upon further review we are reversing this recommendation. The approval letter received from the state clearly states that the FRV for the new construction will be added to the existing FRV, including the minimum allowance amount.

Medicare Part A

FY2011 Medicare average revenue per day was $552. The LRP assumes a 3.55 percent inflation factor in FY2012, 1.5 percent inflation factor in FY2013-FY 2014, and a 2.25 percent annual increase thereafter.

Subsequent to our report of preliminary findings presented in July 2011, CMS issued the final rule for federal FY2012 Medicare payment rates. This final rule included a payment rate reduction of 11.1 percent to be applied effective October 1, 2011. This reduction is a result of overpayments that occurred during federal FY2011 related to the transition to the case mix adjusted RUG IV model that was intended to be budget neutral. Our preliminary recommendation was to phase-in an 11.3 percent reduction over a four-year period.

The 11.1 percent decrease in payments is offset by an improvement in the Fairfield County wage index that has a positive impact on TNW rates. The net impact on TNW is an 8.9 percent rate decrease; this is below the national average decrease of 11.1 percent. Despite the fact that CMS is making it a one-time adjustment as opposed to a 4-year phase-in this has a positive impact on the LRP 30-year cash flow projections. **We recommend changing the Medicare Part A inflation factors in the LRP for FY2012 and FY2013 to -2.82 percent and -1.34 percent, respectively, to reflect final Medicare FY2012 payment rates.**

Until this year, Medicare payment rates were increased by the change in the market basket index used by CMS. The market basket is an estimate of the change in inflation for the upcoming year. Part of the health care reform law that was signed in 2010

reduces the annual market basket updates by an annual productivity adjustment effective October 1, 2011. We are estimating that the annual productivity adjustment will be 1 percent-1.25 percent over the next seven years. **Therefore we recommend reducing the Medicare Part A inflation factors to 1.5 percent in FY2014 through FY2019.**

Inflation factors beyond FY2019 are impossible to predict. We believe that the 2.25 percent annual inflation factor used in FY2020 and beyond is a reasonable assumption for purposes of the LRP.

The LRP also assumes a FY2012 rate improvement of $24.13 per day to account for improved Medicare coding and documentation processes related to the capture of activities of daily living (ADLs); our previous review identified a significant opportunity for increased reimbursement related to this issue. According to TNW staff, these changes have not yet been implemented but are expected to go into effect by January 1, 2012. **We agree with this assumption but based on the revised implementation date recommend including only half of the estimated impact in FY2012.**

These changes will result in a significant increase in Medicare revenue. However it is important that these changes be implemented properly. **We recommend that a sensitivity analysis be performed to quantify the impact on 30-year cash flow of not realizing these improvements.**

Medicare Part B

The FY2011 Medicare Part B average revenue per private and Medicaid day was $6.30. The LRP assumes a 1.5 percent inflation factor in FY2012, 2.0 percent in FY2013-FY2014, and a 2.25 percent annual increase thereafter. We believe these are reasonable assumptions for purposes of the LRP.

Apartment Rental

FY2011 apartment rental income was $40,922. The LRP assumes a 4.2 percent inflation factor FY2012-FY2013, 3.5 percent in FY2014, and a 2.25 percent annual increase thereafter. We believe these are reasonable assumptions for purposes of the LRP.

Pavilion Rental

FY2011 pavilion rental income was $35,100. The LRP assumes a 5.0 percent inflation factor in FY2012-FY2014 and a 2.25 percent annual increase thereafter. We believe these are reasonable assumptions for purposes of the LRP.

Café Witherell

FY2011 Café Witherell revenue was $69,036. The LRP assumes a 3.0 percent inflation factor in FY2012-FY2014 and a 2.25 percent annual increase thereafter. We believe these are reasonable assumptions for purposes of the LRP.

Other Operating Revenue

FY2011 other operating revenue was $11,055. The LRP assumes this amount projected forward for the entire 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP.

Fund-Raising

The LRP assumes $100,000 per year beginning FY2016 with an additional $5 million included over three years, FY2013 through FY2015. **We recommend removing these items from the LRP cash flow projections for purposes of this analysis in order to determine the true cash flow gap related to TNW operations that is required to be filled by private donations or town support.**

Summary of Phase 2 Recommendations

The following is a summary of recommendations from phase 2 of our analysis:

- Adjust occupancy and payor mix assumptions to reflect Tables 4 and 5 on pages 13 and 14.
- Implement changes related to marketing strategy and overall census development mentality and begin preparations for health care reform related changes.
- In FY2012 adjust the private pay revenue inflation factor to 3.75 percent.
- For FY2015-FY2039 adjust the private pay revenue inflation factor to 2.5 percent.
- Adjust private pay rates to reflect the balcony conversion, quad room elimination, and revised bed configuration.
- Adjust Medicaid rates to reflect the state of Connecticut proposed changes in FY2012 and FY2013.
- Perform a sensitivity analysis on the impact of a lower Medicaid inflation rate.
- Perform a sensitivity analysis on the impact of a lower ROR in the FRV calculation.
- To reflect recent legislation from CMS, adjust the Medicare inflation factors to -2.82 percent in FY2012 and -1.34 percent in FY2013.
- Adjust the Medicare inflation factor to 1.5 percent in FY2014 through FY2019.

- In FY2012 adjust the Medicare rate add-on for coding and documentation improvements to 50 percent.
- Perform a sensitivity analysis on the impact of not realizing Medicare reimbursement improvements.

PHASE 3: VERIFICATION OF PROJECTED OPERATING EXPENSES

Scope of Work

During Phase 3, HDG performed an evaluation of operating expense assumptions and calculations contained within the long-range financial projections. We evaluated projected operating expenses to determine if they are consistent with other 202-bed facilities with similar demographic characteristics. We also factored in the facility's projected occupancy and payor mix. Specifically, we reviewed and evaluated the following:

- **Direct patient care (nursing and non-nursing) costs**. Once again, utilizing our industry expertise and internal databases and considering the facility's projected occupancy, payor mix, and acuity (patient-type), HDG determined if the projected direct patient care expenses were reasonable.
- **Support care costs**. HDG utilized comparable benchmarking data in addition to our industry expertise to determine the reasonableness of projected overhead costs.
- **All other non-payroll costs**. HDG reviewed other non-payroll costs incurred directly by TNW. We utilized our industry expertise and comparable benchmark data to analyze the reasonableness of the assumptions used in the long-range financial projections. Key areas reviewed during this phase included medical supplies, pharmacy, housekeeping, maintenance, dietary, and utility expenses.
- **Reasonableness of expense assumptions**. Understanding that the Town engages in business with the facility, which is a Town department, and, as such, allocates its costs (labor and other administrative support) for appropriate services, our review included an analysis of the reasonableness of assumptions for these expenses included in the long-range financial projections.
- **Capital expenditures**. HDG reviewed all capital expenditures for reasonableness and with consideration to facility size, occupancy, projected payor mix, etc. These expenditures included not only building and infrastructure but also major and minor equipment purchases and projected routine maintenance costs.
- **Inflation factors**. All expense inflation factors were reviewed for reasonableness based on HDG's knowledge of the industry as well as historical trends.

Expense Projections

Salaries and Wages

Salary expense in FY2011 was $11.5 million. The current staffing model has been used in each year of the 30-year projection period with the following exceptions:

- Total hours worked for variable positions have been adjusted to reflect one additional day during leap years.
- 2.1 full-time equivalents (FTE) were added for housekeeping upon completion of renovations.
- 3.3 RN FTEs were added upon completion of renovations.

TNW staff provided a revised staffing worksheet that included the most recent changes in labor contracts and final FY2011 hours and wages by position. We have reviewed these changes and believe they are reasonable. **We recommend incorporating the revised staffing model into the LRP.**

The staffing model appears to be reasonable in the post-construction period. Nursing hours per patient day (NHPPD) are 4.5, which should be more than enough to care for the projected payor mix.

Staffing in support services, overhead, and ancillary departments appear reasonable compared to other facilities based on the projected volume and payor mix.

HDG believes that staffing in the construction period is conservative. With a 7 percent to 9 percent reduction in volume, TNW should be able to reduce staffing costs for some positions to reflect reduced volumes. I**n FY2013 and FY2014 we recommend including a reduction to part-time staff positions in food service, housekeeping, laundry, and nursing departments. This can be accomplished by applying the FY2011 NHPPD for these positions to FY2013 and FY2014 patient days.** It may be possible to reduce staffing further depending on the final unit configuration and staff productivity expectations.

Hourly rates are based on FY2011 actual data and appear to be reasonable. The LRP assumes annual salary inflation factors ranging from 2.3 percent - 2.5 percent depending on the type of position. The following is a list of position types and the associated salary inflation factors:

- Teamsters 2.5 percent FY2012–FY2039
- Liuna 2.3 percent FY2012-FY2013, 2.5 percent FY2014-FY2039
- GMEA 2.3 percent FY2012-FY2013, 2.5 percent FY2014-FY2039

- Management 2.5 percent FY2012-FY2039
- Part-Time 2.3 percent FY2012-FY2039

We believe the above inflation factors are reasonable in the short-term. It is difficult to predict what will happen with salary inflation beyond a few years from now. If these salary inflation projections cannot be achieved it could have a significant impact on the financial performance of TNW and could result in LRP projections that vary significantly from current projections. TNW must work hard to keep salary increases within the changes in revenues in order to maintain cash flow projections.

Fringe Benefits

Fringe benefit expenses totaled $4.4 million in FY2011. This represents 38.4 percent of salary expenses. This is a very high amount when compared to the industry average range of 20 percent-25 percent for the private sector. This amount is not unusual when compared to other governmentally owned and operated providers. TNW is at a disadvantage because of salaries and benefits that are higher than competitors in the private sector.

TNW staff provided a revised benefits worksheet that includes the most recent changes in union contracts and actuarial adjustments. We have reviewed these changes and believe they are reasonable. **We recommend incorporating the revised fringe benefits model into the LRP.**

The LRP incorporates anticipated changes in the benefits structure over the next several years. Benefits percentage is projected to increase to 43.7 percent in FY2012 and gradually ramp-down to 40 percent over the course of the 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP. We do, however, recommend that TNW continue to aggressively negotiate a benefits structure that is more comparable to competitors in the private sector. **We also recommend that a sensitivity analysis be performed to demonstrate the impact on the 30-year financial projections of reducing the benefits percent of salary ratio by 10 percentage points over a five-year period.**

Professional Fees Non-Variable

The professional fees non-variable expense category totaled $862,705 during FY2011. This expense category includes food service, medical director fees, Café Witherell, miscellaneous therapy expenses, and other miscellaneous professional fees. Sixty-eight percent of the expense is related to food service and Café Witherell. The LRP includes additional expenses in future years for Witherell University and patient centered care training. We believe these are reasonable assumptions for purposes of the LRP.

Short-Term Resident Variable Expenses

The short-term resident variable expense category totaled $1,776,641 during FY2011. This expense category includes ancillary costs related to short-term residents such as rehab therapy expenses, radiology, and laboratory, oxygen, and pharmacy expenses. It also includes Medicare Part B expenses for the private pay and Medicaid residents. Expenses are projected based on a per short-term patient day basis except Medicare Part B, which is based on a percentage of revenue.

It was noted in our preliminary findings that the LRP does not apply annual inflation factors to these expenses, resulting in a significant understatement of expenses. **We recommend correcting the LRP short-term resident variable expense calculations to properly apply annual inflation factors.**

HDG also noticed a formula error in the LRP related to the Medicare Part B expense calculation. **We recommend that this error be corrected to more accurately project these expenses.**

Supply Expense

The supply expense category totaled $1,371,059 during FY 2011. This expense category includes medical supplies, non-medical supplies, mechanical supplies and tools, chemical supplies, and food costs.

The LRP assumes these costs will be fixed from year-to-year with the exception of an annual inflation factor. We believe that the medical supply and food costs should be treated as variable expenses and adjusted according to changes in census. **We recommend adjusting the LRP to project medical supply and food expenses using a cost per patient day methodology.**

Service Expense

The service expense category totaled $1,022,959 during FY 2011. This expense category includes utilities, rental equipment, legal, advertising, printing, postage, tuition, travel, software maintenance, and cleaning costs. Non-recurring expenses for MDI ADL tracking software have been eliminated in FY2012. The remaining expenses have been adjusted for inflation going forward for the 30-year projection period.

With a renovated facility it is likely that TNW will be more energy efficient and therefore experience a reduction in annual utility costs. The LRP is conservative in the fact that post-construction utility costs do not assume any efficiency reductions. We believe these are reasonable assumptions for purposes of the LRP.

Maintenance Expense

The maintenance expense category totaled $152,828 during FY 2011. This expense category includes maintenance expenses for all areas of the TNW campus. These expenses have been adjusted for inflation going forward for the 30-year projection period. The LRP includes additional expense of $14,000 beginning in FY2014 to account for potential additional maintenance expenses associated with Project Renew.

With a renovated facility it is likely that TNW will experience a reduction in annual maintenance costs. The LRP is conservative in the fact that post-construction maintenance costs do not assume any cost reductions and in fact include an increase in expenses. We believe these are reasonable assumptions for purposes of the LRP.

Insurance Expenses

The insurance expense category totaled $223,974 during FY2011. This expense category includes general liability, auto liability, and medical malpractice insurance expenses. These expenses have been adjusted for inflation going forward for the 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP.

TNW staff provided an update subsequent to the preliminary report requiring additional expenses of $29,368 beginning in FY2013 to account for projected increased costs. **We recommend adjusting the LRP to include this new insurance information.**

Town Department Expenses

The Town department expense category totaled $520,505 during FY2011. This expense category includes purchasing, human resources, finance, information technology, and legal service expenses provided by the Town. These expenses have been adjusted for inflation going forward for the 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP.

Capital–TOG

The capital–TOG expense category totaled $210,198 during FY 2011. This expense category includes capital expenditures provided by the Town. The LRP assumes a cost of $322,000 in FY2012. These expenses have been adjusted for inflation going forward for the 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP.

Bad Debt and Medicaid Credits

The bad debt and Medicaid credits expense category totaled $241,800 during FY2011. This expense category includes bad debt expense. This expense is based on 1.5 percent of private pay revenue. Non-recurring Medicaid accrual adjustments have been eliminated in FY2012. We believe these are reasonable assumptions for purposes of the LRP.

User Fees

The Medicaid user fee expense category totaled $711,040 during FY 2011. This expense category includes the Medicaid user fee of $12.20 charged for every non-Medicare Part A patient day. The state of Connecticut has proposed an increase of $2.58 effective July 1, 2011, in the user fee for facilities owned by a municipality; and a $3.93 increase effective October 1, 2011. This increase in user fees is expected to be offset partially by an increase in the Medicaid reimbursement rates. **We recommend adjusting the FY2012 and FY2013 inflation factors in the LRP to reflect these proposed user fee increases.**

Sewer Taxes

The sewer taxes expense category totaled $23,341 during FY2011. This expense category includes sewer taxes paid by the Town. These expenses have been adjusted for inflation going forward for the 30-year projection period. We believe these are reasonable assumptions for purposes of the LRP.

Inflation Factors

Except where otherwise noted in this report, expenses have been increased by 2.5 percent in FY 2012-FY 2013 and 3.0 percent in FY2014-FY2039. Subsequent to the preliminary report TNW staff submitted a revised LRP which proposed a 2.5 percent annual inflation factor for the entire 30-year projection period. We believe that a 2.5 percent annual inflation factor is reasonable for the short-term. It is nearly impossible to predict inflation factors beyond a few years. Changes in economic conditions and other factors can cause inflation rates to widely fluctuate.

The inflation factor adjustment has a significant positive impact on 30-year cash flow projections. If expense inflation exceeds 2.5 percent over the course of the projection period it may be necessary to generate additional revenue to offset this increase. This will have to be done through additional increases in private pay rates since reimbursement for the other payor sources is not controllable. Likewise, an inflation rate below 2.5 percent could result in a cash surplus that could be passed on to private pay residents via reduced rate increases.

Private pay rate inflation factors have also been set at 2.5 percent annually. As noted previously in this report, this is below the average annual increase of 4.08 percent over the last five years. Based on the below average annual increase, there would be an opportunity for additional rate increases if needed. The risk of higher rate increases is a decline in patient satisfaction and the potential for TNW to price itself out of the market. TNW will be required to adapt to changing market conditions. If this does not happen the financial results could vary significantly from those presented in this report. **For purposes of the LRP, we recommend adjusting the LRP to reduce the expense inflation factor to 2.5 percent FY2014-FY2039.**

Summary of Phase 3 Recommendations

The following is a summary of recommendations from phase 3 of our analysis:

- Include a revised staffing model that reflects final FY2011 information and most recent labor contract provisions.
- Adjust construction period staffing to account for lower census levels.
- Include a revised fringe benefits model that reflects final FY2011 information and most recent labor contracts.
- Perform a sensitivity analysis for the impact of lower employee benefits expense.
- Adjust short-term resident variable expenses for inflation in FY2012-FY2039.
- Correct the formula error in the calculation of Medicare Part B expenses.
- Change the calculation of medical supplies and food expenses to be based on costs per patient day.
- Include the insurance expense adjustment provided by TNW staff.
- Adjust the Medicaid user fee calculations to reflect the revised fee schedule proposed by the state of Connecticut.
- Adjust the non-salary expense inflation factor to 2.5 percent in FY2014 through FY2039.

PHASE 4: ANALYSIS OF COST OF CAPITAL MODEL

Scope of Work

During phase 4, HDG performed a detailed analysis of the cost of the capital model. The analysis was focused on debt-service, cash flows, and a wide variety of other financial factors to determine whether the model is providing clear and concise information regarding the cost to finance a new building and the cash flow required to accomplish this.

Findings

The LRP includes financing for Project Renew through bond anticipation notes to be issued in the amount of approximately $23.8 million. The LRP included the debt principal payments in the cash flow analysis but did not include the interest expense. Subsequent to the preliminary report, TNW staff provided a revised LRP that includes both principal and interest expense. **We recommend adjusting the LRP to properly include interest expense and principal payments based on the revised debt schedule provided by TNW staff in order to accurately estimate cash flow needs.**

HDG has reviewed the LRP to determine whether it is providing clear and concise data regarding the projected operating results and cash flow requirements for TNW. We believe the structure and format is sufficient to provide reasonable projections of operating results and cash flow requirements. A 30-year projection is difficult because of so many different factors that can change and cause significant variances.

Summary of Phase 4 Recommendation

HDG recommends adjusting the LRP to properly account for debt service payments in cash flow projections.

IMPACT OF RECOMMENDATIONS

To determine the impact of the HDG's recommendations we have taken the following steps:

- Calculated the 30-year revenue, expense, net income, and cash flow projections from the original LRP that was provided to us at the beginning of the engagement.
- Eliminated revenues from fund-raising, contributions, and any Town subsidies to determine a baseline cash flow projection.
- Calculated the net income and cash flow impact for each recommendation mentioned in the report and summarized the total impact.
- Applied the total impact to the baseline projection to determine the revised financial projections based on our recommended changes.
- Performed sensitivity analyses mentioned in this report and compared the impact against the revised financial projections.

The following are definitions for the column headings in the impact tables:

- Revenues = Cumulative revenue (including Medicaid FRV) for projection period
- Expenses = Cumulative expenses (including interest)
- Net Income = Revenues minus Expenses
- Debt Principal = Cumulative debt principal
- Cash Flow = Net Income minus Debt Principal
- Cash Need = Cash need to avoid a negative cash balance during projection period.

The Total Cash Need represents the low point of cash flow during the projection period. This is the gap that will be required to be filled by Town subsidies or contributions through fund-raising efforts. This amount may differ from the total cash flow. These amounts will be equal if the project does not achieve breakeven cash flow at any point during the projection period. This was the case with the preliminary findings presented previously.

Table 6 on the following page contains results of the steps outlined above from our preliminary report from July 2011.

Table 6: Impact of Recommendations – Preliminary Report

Town of Greenwich
The Nathaniel Witherell
Project Renew Long Range Plan Review

Impact of Recommendations - Preliminary	30 Year Cumulative Projections					Total Cash Need
	Revenues	Expenses	Net Income	Debt Principal	Cash Flow	
TNW Model (Baseline)	$1,065,707,476	$1,020,714,346	$ 44,993,130	$24,340,467	$ 20,652,663	
Elimination of Fund Raising/Subsidy	$ (7,400,000)	$ -	$ (7,400,000)	$ -	$ (7,400,000)	
Revised Baseline	$1,058,307,476	$1,020,714,346	$ 37,593,130	$24,340,467	$ 13,252,663	$ 4,655,698
Preliminary Findings:						
Payor Mix	$ (22,011,599)	$ (6,941,024)	$ (15,070,575)	$ -	$(15,070,575)	
Private Pay Rate	$ 25,490,126	$ 382,351	$ 25,107,775	$ -	$ 25,107,775	
Commercial Rate	$ 1,070,275	$ -	$ 1,070,275	$ -	$ 1,070,275	
Medicaid Rate	$ 5,808,541	$ -	$ 5,808,541	$ -	$ 5,808,541	
Medicare Part A Rate	$ (36,210,195)	$ -	$ (36,210,195)	$ -	$(36,210,195)	
Short-Term Resident Expense	$ -	$ 31,733,751	$ (31,733,751)	$ -	$(31,733,751)	
Non-Salary Expense	$ -	$ (4,898,232)	$ 4,898,232	$ -	$ 4,898,232	
Medicaid User Fee	$ -	$ 6,260,241	$ (6,260,241)	$ -	$ (6,260,241)	
Interest Expense	$ -	$ 11,571,441	$ (11,571,441)	$ -	$(11,571,441)	
Total Impact of Changes	$ (25,852,852)	$ 38,108,528	$ (63,961,380)	$ -	$(63,961,380)	$ 46,053,019
Revised Model Before Fund Raising	$1,032,454,624	$1,058,822,874	$ (26,368,250)	$24,340,467	$(50,708,717)	$ 50,708,717

Table 7 on the following page contains the summary of recommended changes made subsequent to the preliminary report findings.

Table 7: Impact of Recommendations – Final Report

Town of Greenwich
The Nathaniel Witherell
Project Renew Long Range Plan Review

Impact of Recommendations	30 Year Cumulative Projections					Total Cash Need
	Revenues	Expenses	Net Income	Debt Principal	Cash Flow	
TNW Model (Baseline)	$1,065,707,476	$1,020,714,346	$ 44,993,130	$24,340,467	$ 20,652,663	
Elimination of Fund Raising/Subsidy	$ (7,400,000)	$ -	$ (7,400,000)	$ -	$ (7,400,000)	
Revised Baseline	$1,058,307,476	$1,020,714,346	$ 37,593,130	$24,340,467	$ 13,252,663	$ 4,655,698
Impact of Preliminary Findings	$ (25,852,852)	$ 38,108,528	$ (63,961,380)	$ -	$(63,961,380)	$ 46,053,019
Adjusted Model (Preliminary)	$1,032,454,624	$1,058,822,874	$ (26,368,250)	$24,340,467	$(50,708,717)	$ 50,708,717
Additional Findings:						
Update FY 2011 Data	$ (5,827,817)	$ 2,036,273	$ (7,864,090)	$ -	$ (7,864,090)	
Payor Mix	$ 6,902,223	$ 2,863,588	$ 4,038,635	$ -	$ 4,038,635	
Private Pay Rate	$ 10,101,687	$ 151,525	$ 9,950,162	$ -	$ 9,950,162	
Medicare Rate	$ 13,039,145	$ -	$ 13,039,145	$ -	$ 13,039,145	
Medicaid FRV	$ 1,118,412	$ -	$ 1,118,412	$ -	$ 1,118,412	
Salary Adjustments	$ -	$ (2,707,213)	$ 2,707,213	$ -	$ 2,707,213	
Benefits Adjustments	$ -	$ 9,236,620	$ (9,236,620)	$ -	$ (9,236,620)	
Non-Salary Expense Inflation	$ -	$ (19,644,245)	$ 19,644,245	$ -	$ 19,644,245	
Part B Expense Calculation	$ -	$ 204,442	$ (204,442)	$ -	$ (204,442)	
Insurance Adjustment	$ -	$ 1,170,592	$ (1,170,592)	$ -	$ (1,170,592)	
Debt Service Adjustment	$ -	$ 1,424,499	$ (1,424,499)	$ (538,207)	$ (886,292)	
Construction Period Staffing	$ -	$ (545,426)	$ 545,426	$ -	$ 545,426	
Total Impact of Changes	$ 25,333,650	$ (5,809,345)	$ 31,142,995	$ (538,207)	$ 31,681,202	$(28,810,103)
Revised Model Before Fund Raising	$1,057,788,274	$1,053,013,529	$ 4,774,745	$23,802,260	$(19,027,515)	$ 21,898,614

Impact Analysis Conclusions

The original LRP projections show the following after excluding Town subsidy and contributions from fund-raising:

- Cumulative cash flow of $13.3 million over the 30-year projection period
- Total cash need of $4.7 million to fund cash deficits until 2018 when the facility achieves breakeven cash flow and becomes self-sustaining
- A cumulative cash flow breakeven in 2030

The preliminary LRP projections showed the following:

- Cumulative cash flow of ($50.7) million over the 30-year projection period
- Total cash need of $50.7 million to fund cash deficits
- Failure to achieve positive cash flow after the construction period begins
- A cumulative cash flow breakeven does not occur during the projection period

The recommended changes for the final LRP projections show the following:

- A $31.7 million increase in the cumulative cash flow
- A reduction to the total cash need of $28.8 million

The final LRP projections show the following:

- **Cumulative cash flow of ($19.0) million over the 30-year projection period**
- **Total cash need of $21.9 million to fund cash deficits until 2035 when the facility achieves breakeven cash flow and becomes self-sustaining**
- **A cumulative cash flow breakeven does not occur during the projection period**

The cash deficit of $21.9 million is accumulated over the 20-year debt device period. Fund-raising dollars and/or a subsidy from the Town will be required to fund cash deficits during this time.

Key Changes From Preliminary Findings

Final LRP results show a significant improvement from the projections presented in the preliminary report. The final LRP projections include both positive and negative changes from the preliminary LRP.

Positive changes include:

- A reduction in non-salary expense due to a decrease in the annual inflation factor
- Increased Medicare revenue due mainly to a more favorable than expected final FY2012 rate published on August 1, 2011
- Increase in private pay revenue due mainly to an increase in the annual inflation factor
- A more favorable payor mix due to additional analysis of data provided by TNW staff and refinement of the Market Demand Analysis
- Favorable adjustment to the Medicaid FRV calculation

Negative changes include:

- Increased labor expenses due to revised models provided by TNW staff
- Unfavorable adjustment as a result of using final FY2011 financial data
- An unfavorable adjustment to insurance expense projections

These changes are addressed in detail in other sections of this report.

SHORT RANGE ANALYSIS

Table 8 on the following page contains TNW financial projections for a shorter, 9-year time frame. This 9-year snapshot includes one year prior to construction, a two-year construction period, and 6 years of operation with full occupancy. This analysis was done because revenue and expense assumptions are easier to estimate over a shorter time frame. The 6-year post-construction period was chosen in order to show two years of fully stabilized operations as the payor mix assumptions are phased in over a five-year period. The goal of the analysis is to determine the cash requirement during the construction period and the margins and cash flow projections in the years immediately after the construction period. It will show how long it takes to generate a positive margin and stabilized margins and cash flow projections.

In the analysis, Earnings Before Interest, Depreciation, and Amortization (EBIDA) are defined as the income from operations. This excludes a debt service payment and non-cash items such as depreciation expenses. It is an indicator of the profitability from an operations standpoint.

The projections show the following key items:

- TNW is projected to generate negative margins in FY2012 and significant negative margins during the construction period.
  - EBIDA through the construction period:
    - FY2012 ($481,000), or -2.0 percent
    - FY2013 ($1,500,000), or -6.3 percent
    - FY2014 ($2,100,000) , or -9.1 percent
  - Additional $200,000 per year for debt service
- After construction TNW is projected to generate positive EBIDA margins but not enough to cover the debt service requirements.
  - The post-construction stabilized EBIDA of approximately $850,000 per year, or a margin of 2.7 percent
  - Debt service payments of approximately $1.9 million per year
  - An additional cash need of approximately $1 million to $1.1 million to cover debt service during stabilized operations
- EBIDA over the 9-year period of $654,869, or a 0.3 percent margin.
- Total cash flow of ($11,382,926) over the 9-year period.
- Total cash need of ($10,334,173) over the 9-year period

Table 8: Short Range Projections

The Nathaniel Witherell
Project Renew Long Range Plan
Statement of Cash Flows

	Actual 2010	Actual 2011	2012	Construction Period 2013	2014	2015	2016	2017	2018	2019	2020	9 Year Total
Resident Days												
Private Pay	16,273	16,991	17,038	15,896	14,801	16,991	18,136	18,816	19,181	19,214	19,267	159,340
Commercial Insurance	677	1,341	1,346	1,799	1,799	1,799	1,804	1,799	1,799	1,799	1,804	15,748
Medicaid	41,393	40,956	41,068	36,437	35,786	38,065	37,071	36,240	35,875	35,842	35,940	332,324
Medicare A	10,360	8,936	8,961	9,444	10,210	13,349	13,385	13,349	13,349	13,349	13,385	108,781
Total Resident Days	68,703	68,224	68,413	63,576	62,596	70,204	70,396	70,204	70,204	70,204	70,396	616,193
Revenue												
Private	6,826,145	7,384,028	7,682,093	7,316,770	7,035,507	8,245,562	9,021,209	9,593,526	10,024,182	10,292,556	10,578,932	79,790,337
Commercial Insurance	300,574	569,403	580,099	786,955	802,696	820,758	841,566	858,123	877,426	897,161	919,896	7,384,680
Medicaid	10,027,930	9,901,390	10,302,729	9,171,193	9,187,340	10,515,456	10,459,954	10,444,368	10,560,883	10,777,331	11,038,971	92,458,225
Medicare A	5,129,440	4,929,319	5,028,106	5,464,865	5,996,640	7,957,873	8,098,862	8,198,288	8,321,366	8,446,179	8,659,426	66,171,605
Medicare B	322,379	364,958	371,297	341,211	336,404	374,381	383,689	391,448	400,257	409,066	419,573	3,427,326
Apartment Rental	37,713	40,922	42,641	44,432	45,987	47,022	48,080	49,162	50,268	51,399	52,555	431,546
Pavilion Rental	39,300	35,100	36,855	38,698	40,633	41,547	42,482	43,438	44,415	45,414	46,436	379,918
Café Witherell	66,545	69,036	71,150	68,026	68,856	78,628	80,955	82,841	84,947	87,053	89,403	711,859
Other Revenue	10,932	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	11,055	99,495
Total Revenue	22,760,958	23,305,211	24,126,025	23,243,205	23,525,118	28,092,282	28,987,852	29,672,249	30,374,799	31,017,214	31,816,247	250,854,991
Expenses												
Salaries & Wages	11,173,357	11,497,382	11,926,408	12,010,935	12,483,154	13,230,811	13,590,852	13,898,130	14,227,518	14,581,894	14,968,222	120,917,924
Fringe Benefits	3,699,980	4,410,114	5,208,706	5,090,124	5,287,446	5,526,833	5,588,966	5,706,617	5,851,077	5,991,571	6,140,694	50,392,034
Professional Fees Non Variable	880,855	862,705	865,049	896,675	939,093	962,070	985,621	989,760	1,014,504	1,039,867	1,065,864	8,758,503
Short Term Resident Variable Expenses	1,765,862	1,776,641	1,822,279	1,982,628	2,142,293	2,724,562	2,800,305	2,861,322	2,932,123	3,005,135	3,086,906	23,357,553
Supply Expense	1,386,545	1,371,059	1,408,055	1,372,409	1,410,043	1,563,297	1,605,991	1,642,592	1,683,656	1,726,135	1,771,990	14,184,168
Service Expense	1,087,005	1,022,959	1,027,997	1,053,548	1,079,611	1,106,677	1,134,742	1,162,811	1,191,881	1,221,955	1,252,027	10,231,249
Maintenance Expense	218,851	152,828	156,648	160,620	178,595	183,073	187,709	192,358	197,167	202,137	207,120	1,665,427
Insurance Expenses	300,647	223,974	258,942	265,415	272,051	278,852	285,824	292,969	300,293	307,800	315,495	2,577,641
Town Department Expenses	530,556	520,505	533,517	546,855	560,526	574,539	588,903	603,626	618,717	634,186	650,042	5,310,911
Capital - TOG	118,036	210,198	322,000	330,050	338,301	346,759	355,428	364,314	373,422	382,758	392,327	3,205,359
Bad Debt & Medicaid Credits	98,008	241,800	115,231	109,752	105,533	123,683	135,318	143,903	150,363	154,388	158,684	1,196,855
User Fees (12.20 Private, Medicaid, Insurance)	711,785	711,040	938,747	873,149	844,986	917,071	919,587	917,071	917,071	917,071	919,587	8,164,340
Sewer Taxes	21,383	23,341	23,925	24,523	25,136	25,764	26,408	27,068	27,745	28,439	29,150	238,158
Total Cash Expenses	21,992,870	23,024,546	24,607,504	24,716,683	25,666,768	27,563,991	28,205,654	28,802,541	29,485,537	30,193,336	30,958,108	250,200,122
EBIDA	768,088	280,665	(481,479)	(1,473,478)	(2,141,650)	528,291	782,198	869,708	889,262	823,878	858,139	654,869
EBIDA Margin %	3.4%	1.2%	-2.0%	-6.3%	-9.1%	1.9%	2.7%	2.9%	2.9%	2.7%	2.7%	0.3%
Debt Service Repayment												
Pre Construction Debt Principal	-	-	112,000	113,000	113,000	113,000	113,000	114,000	114,000	114,000	114,000	1,020,000
Preconstruction Debt Interest	-	-	88,755	89,575	83,925	78,275	72,625	66,975	63,555	60,135	56,715	660,535
Construction Debt Principal	-	-	-	-	-	649,797	682,287	716,401	752,221	789,832	829,324	4,419,863
Construction Debt Interest	-	-	-	-	-	1,076,413	1,043,923	1,009,809	973,989	936,378	896,886	5,937,397
Total Debt Service Payments	-	-	200,755	202,575	196,925	1,917,485	1,911,835	1,907,185	1,903,765	1,900,345	1,896,925	12,037,795
Annual Cash Flow From Operations Fav/(Unf)	768,088	280,665	(682,234)	(1,676,053)	(2,338,575)	(1,389,194)	(1,129,637)	(1,037,477)	(1,014,503)	(1,076,467)	(1,038,786)	(11,382,926)
Cumulative Cash Flow From Operations Fav/(Unf)	768,088	1,048,753	366,520	(1,309,534)	(3,648,109)	(5,037,303)	(6,166,940)	(7,204,417)	(8,218,920)	(9,295,387)	(10,334,173)	

SENSITIVITY ANALYSIS

HDG has recommended four scenarios for sensitivity analyses to determine the impact on the financial projections of changes and certain key assumptions. This section of the report contains a summary of the analyses. The sensitivity analyses are listed below:

- Medicaid inflation factor of 1 percent in FY2014 through FY2038
- Medicaid ROR of 4 percent
- Medicare revenues without the ADL improvement add-on
- Reduction of benefits ratio by 10 percentage points between FY2013 and FY2017

The following table summarizes the impact of these four analyses on 30-year cash flow and total cash need.

Table 9: Sensitivity Analysis Summary

The Nathaniel Witherell Project Renew Long Range Plan Review Sensitivity Analysis	Project Cash Flow	Project Cash Need
Sensitivity #1 - 1.0% Medicaid Inflation Factor	$ (51,422,085)	$70,449,600
Sensitivity #2 - 4.0% ROR in Mediciad FRV	$ (822,075)	$22,720,689
Sensitivity #3 - Remove Medicare ADL add-on	$ (23,252,148)	$42,279,663
Sensitivity #4 - Reduce benefits ratio by 10%	$ 29,912,512	$ 4,492,422

Table 9 shows the following:

- A drop in the Medicaid inflation rate to 1 percent would result in a reduction of $51.4 million in the 30-year cash flow projection and the total project cash requirement would increase to $70 million
- A drop in the Medicaid FRV rate of return to 4.0 percent would result in a minor decrease of $822K in the 30-year cash flow projection and the total project cash requirement would increase to $22.7 million
- Elimination of the projected Medicare rate increase due to ADL documentation improvements would result in a reduction of $23.3 million in the 30-year cash flow projection and the total project cash requirement would increase to $70 million.

- A reduction in the employee benefits percent of salaries ratio by 10 percentage points over 5 years would result in an increase of $29.9 million in the 30-year cash flow projection and the total project cash requirement would decrease to $4.5 million

These impacts display the variability of these assumptions. If the worst case scenarios occur, it will be necessary for TNW to be prepared to make adjustments in other areas to sustain positive financial performance. However, if benefits can be adjusted closer to private sector nursing facility standards, the financial performance of TNW could improve dramatically.

APPENDIX A

Construction Budget Assessment, July 12, 2011

July 12, 2011

Mr. Tom Stitt
Director, Financial Analysis & Reimbursement
Health Dimensions Group
4400 Baker Road
Suite 100
Minneapolis, MN 55343

RE: The Nathaniel Witherell – Project Renew (Modified)
Construction Budget Assessment

Dear Tom:

We have been requested to perform an assessment of the construction budget for the above referenced project.

We have been provided an undated budget based on drawings dated 1-08-2010 (a copy is attached hereto); project schedule dated October 8, 2010 prepared by Turner; an asbestos survey dated October 30, 2009, prepared by Hygenix, Inc.; a lead based paint survey dated October 30, 2009, prepared by Hygenix, Inc.; a conceptual set of floor plans marked with phasing information containing a title block by Perkins Eastman Architects some sheets dated June 1, 2002, some sheets undated; and a set of existing floor plans dated July 14, 2009 prepared by The SLAM Collaborative.

The drawings are very conceptual in nature and contain no civil, structural, mechanical or electrical information. Specifications or a written scope narrative describing the project were not provided, other than the brief description contained in an e-mail written by Allen Brown dated June 2, 2011.

Due to the limited scope of work information, our analysis and comments are brief.

Construction Costs:
Administration and Tower Buildings: Overall, I would consider the amounts represented to be a reasonable expectation for completing a major renovation to the facility. The difficulty at this time is that the scope of work is so undefined it is impossible to comment on whether the budget is accurate.

Sitework: The current budget is larger than the amount shown in the 2009 budget, however, I have assumed this is due to allocating a portion of the general conditions and fees into this line item.

Soft Costs:
Many of these costs have been pared down from the 2009 budget, which in my opinion is appropriate. A few additional items should be considered for further reduction.

- Builders Risk Insurance- I would expect this to be roughly $17,000.

- A/E Reimbursable Expense- In 2009 we recommended this amount be reduced from $100,000 to $50,000. It is currently shown at $80,000. We still feel $50,000 is adequate, if not generous.
- Geotech Subsurface Investigation- I'm curious if this is needed at all. If there is no structural expansion to the building, then a soils investigation should not be warranted.
- Pre-Construction CM Fee- There are substantial fees included. The services and value should be commensurate with these fees. Are the services adequately defined? Are there a set of deliverables, measurable services to be performed or expected outcomes and results tied to this fee?

Based on our previous analysis in 2009, we remain concerned that general condition type items could be overstated within this budget, however it is impossible to determine based on the current format. Likewise as stated in our 2009 analysis, any contingency amount should not be under the contractor's control. It is impossible to tell if there is additional contingency built into the construction cost portion of the budget. The 2009 budget had multiple layers of contingencies.

Summary & Recommendations:
In general, we believe the budget outlined in the documents referenced herein is reasonable and obtainable.

However, particular attention must be placed on managing the design process to be completed within the established budget. Proactive, milestone budget exercises must be completed. Regular and ongoing plan review should be part of the services of the pre-construction CM. Terms and conditions for the contractor's general conditions and fees, if not agreed upon, must be negotiated in advance of agreeing on a final number. An open book subcontractor bid process should be established where the owner can view and comment on the results of the final bidding process. With the project scope sufficiently vague, and without establishing the appropriate checks and balances within the pre-construction phase, there is a high probability for not obtaining the project budget.

Because of the conclusions in our 2009 analysis, we strongly urge the use of an owner's representative or construction consultant to participate in the pre-construction phase, if not beyond to represent the owner's interests in the items outlined above. In our opinion the cost of an additional consultant will be offset in the savings to the construction budget.

Please do not hesitate to call with any of your questions or comments.

Sincerely,

Mike Schraad
Vice President
Welsh Construction, LLC

APPENDIX B

Revised Market Demand Analysis, August 30, 2011

The Nathaniel Witherell
Revised Market Demand Analysis

Town of Greenwich
Greenwich, Connecticut

August 30, 2011

Health Dimensions Group

Managing. Consulting. Caring.

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EXECUTIVE SUMMARY

Health Dimensions Group (HDG) completed a demand analysis for both long-term and short-term care beds at The Nathaniel Witherell Rehabilitation and Nursing Center (TNW).

Market Area

The market area was determined by analyzing the current census at TNW; the market area consists of eight ZIP codes, which account for 147 (80.3 percent) of the 183 residents.

Demographics of the Market Area

Both the workforce and senior populations was analyzed: the workforce consists of persons 18 to 64 years of age. From 2011 to 2016, this group is projected to increase by 225 persons (0.2 percent), from 96,348 persons in 2011 to 96,573 persons in 2016; the senior population consists of persons 65 years of age and older. The senior population is projected to increase by 2,320 persons (10.4 percent), from 22,360 persons in 2011 to 24,680 persons in 2016.

Competitor Assessment

There are eight skilled nursing facilities (SNF) located in the market area. All eight facilities are Medicare-certified; only seven are Medicaid-certified.

The eight SNFs have a total of 1,084 beds with 170 private rooms. TNW accounts for 18.6 percent of the total nursing home beds and 15.3 percent of the total private rooms. In 2009, TNW had a market share of 15.2 percent of Medicare patient days in the market area.

Nursing Home Bed Demand

Bed demand was calculated using current state of Connecticut utilization, by age cohort, of nursing home beds. In 2011, there is a projected unmet demand for 103 beds. Due to the projected continued decrease in utilization, the unmet demand is projected to decrease to 42 beds by 2016.

Based on the analysis, TNW should be able to continue to support current nursing home bed capacity.

Short-Term Care Bed Analysis

Considering historical referral patterns, distance, and drive time, it is assumed the two primary referral sources for short-term care beds will be Greenwich Hospital and Stamford Hospital. The two facilities average 3.9 miles and 12.5 minutes from TNW.

However, it is important to note there is considerable competition. There are seven nursing homes located within the market area served by TNW. In addition, there is an average of 12.5

nursing homes located within 10 miles of the two primary referring hospitals and 94.5 nursing homes within 25 miles.

Short-Term Care Bed Potential

Not including readmissions, which are defined as Medicare patients that originated from the nursing home, from the two primary referring hospital discharges, there is a projected short-term care bed average daily census (ADC) of 142. Using the Connecticut average length of stay (ALOS) for subacute patients, a 40-bed subacute unit could be supported by capturing 20.5 percent of potential discharges from the two primary referring hospitals, having an ADC of 4 non-Medicare Commercial patients, filling 10 percent of the beds with other referral sources and assuming 90 percent occupancy. At 90 percent occupancy, it is assumed the 40-bed unit would maintain an ADC of approximately 36 persons.

In addition to the subacute unit, TNW projects that it will maintain an ADC of approximately six Medicare readmissions. These are persons who reside in long-term care but necessitate rehabilitation after a hospital stay.

Between the 32 Medicare ADC for new short-term care admissions and 6 readmissions, it is possible for TNW to support an ADC of 38 Medicare/Medicare Advantage patients. However, it is important to note this is a large increase from the current census of 25 Medicare ADC. In addition, it would require a market share of 20.5 percent, which is greater than The Nathaniel Witherell Rehabilitation's percentage of total nursing home beds in the market area (18.6 percent). Although possible with the renovation, it will be challenging to divert this much market share from other nursing homes.

INTRODUCTION

TNW is a 202-bed SNF located on 24 rolling and rustic acres in the backcountry of Greenwich, Connecticut. TNW has been owned and operated on a not-for-profit basis by the Town of Greenwich (Town) for more than 50 years. TNW provides the finest of day-to-day skilled nursing, social, and cultural services. In addition, TNW offers a full complement of rehabilitation therapies. As a Medicare and Medicaid-authorized provider, TNW offers a full range of services and activities for a SNF. Services, including medical, nursing, social services, rehabilitation programs, activities and recreation, enhanced recreation, and chaplaincy, are available and provided by a mix of resident staff members, professionals who visit TNW, and an enthusiastic group of volunteers.

Several years ago the Town started an initiative, Project Renew, to renovate TNW. As part of Project Renew, board members and staff of TNW prepared a business plan document entitled *Nathaniel Witherell Long Range Plan* (TNW Report). This long-range plan includes 30-year financial projections, the critical aspect of which is the rehabilitation and upgrade of TNW's physical facilities.

In 2009, HDG performed a review of projections of a previous version of the TNW Report; HDG is updating this previous report. The current report updates the market and demand analysis.

LONG-TERM CARE BED ANALYSIS

This section of the report presents the demand for long-term care beds in the market area served by TNW.

Market Area

The market area used in this analysis is based on TNW ZIP codes of origin. The market area is larger than the previous report indicating TNW is drawing persons from a larger area than before. Table 1 summarizes ZIP codes of origin with market area ZIP codes highlighted in yellow.

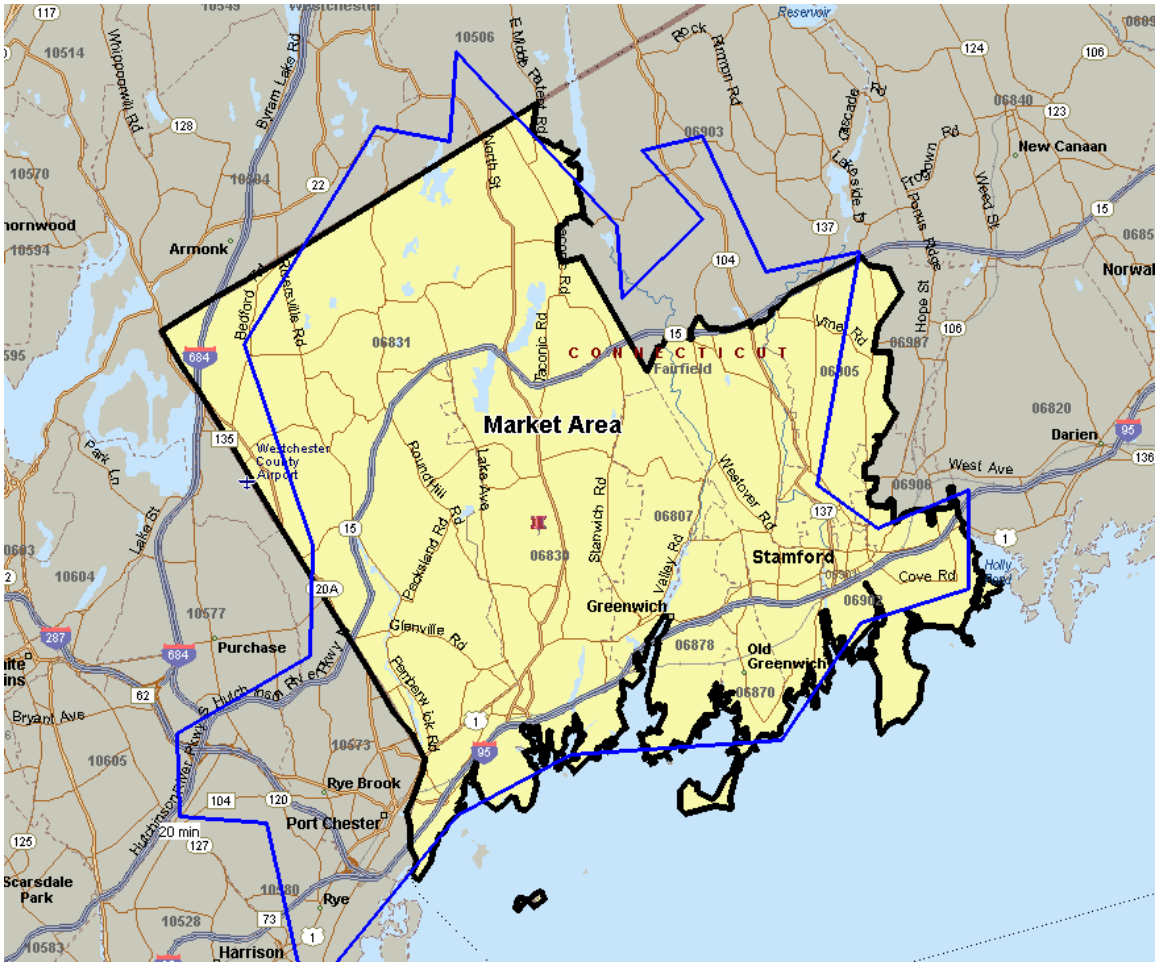
Table 1: ZIP Codes of Origin

Zip Code	Total Residents	Percent	Cumulative Percent
06830 - Greenwich	82	44.8%	44.8%
06831 - Greenwich	16	8.7%	53.6%
06902 - Stamford	15	8.2%	61.7%
06878 - Riverside	12	6.6%	68.3%
06870 - Old Greenwich	7	3.8%	72.1%
06905 - Stamford	7	3.8%	76.0%
06807 - Cos Cob	5	2.7%	78.7%
06903 - Stamford	4	2.2%	80.9%
10573 - Port Chester, NY	4	2.2%	83.1%
06840 - New Canaan	3	1.6%	84.7%
06901 - Stamford	3	1.6%	86.3%
10021 - New York, NY	3	1.6%	88.0%
06907 - Stamford	2	1.1%	89.1%
10573 - Port Chester, NY	2	1.1%	90.2%
02138 - Cambridge	1	0.5%	90.7%
02368 - Randolph	1	0.5%	91.3%
02601 - Hyannis	1	0.5%	91.8%
02653 - Orleans	1	0.5%	92.3%
06401 - Ansonia	1	0.5%	92.9%
06405 - Branford	1	0.5%	93.4%
06820 - Darien	1	0.5%	94.0%
06851 - Norwalk	1	0.5%	94.5%
06854 - Norwalk	1	0.5%	95.1%
06906 - Stamford	1	0.5%	95.6%
10465 - Bronx, NY	1	0.5%	96.2%
10506 - Bedford, NY	1	0.5%	96.7%
10528 - Harrison, NY	1	0.5%	97.3%
10580 - Rye, NY	1	0.5%	97.8%
20818 - Cabin John, MD	1	0.5%	98.4%
33317 - Fort Lauderdale, FL	1	0.5%	98.9%
34984 - Port Saint Lucie, FL	1	0.5%	99.5%
85375 - Sun City West, AZ	1	0.5%	100.0%
Total	**183**	**100.0%**	**100.0%**

As shown on Table 1, 147 (80.3 percent) TNW residents originated from the TNW market area.

Figure 1 shows a map of the market area highlighted in yellow. TNW is represented by a red pushpin and a 20-minute drive time is outlined in blue.

Figure 1: Map of the Market Area



Demographics of the Market Area

Demographics of the workforce were analyzed to show any projected changes over the next five years. Table 2 on the following page summarizes the workforce population for years 2011 and 2016 while Table 3 summarizes the senior population.

Table 2: Demographics of the Workforce Population

Age Cohort	2011	2016	Change	Percent Change
18-20 Years	4,585	5,004	419	9.1%
21-24 Years	6,773	7,951	1,178	17.4%
25-34 Years	19,208	18,060	-1,148	-6.0%
35-44 Years	23,582	20,997	-2,585	-11.0%
45-54 Years	24,420	23,965	-455	-1.9%
55-64 Years	17,780	20,596	2,816	15.8%
Total 18-64 Years	**96,348**	**96,573**	**225**	**0.2%**

Analyzing the workforce population is important to determine how many available workers there will be in the next five years. In addition to the overall number, it is important to review ages of the workforce. Younger persons tend to take entry-level jobs: responsibility increases with age due to experience. Persons in the "older" cohort tend to have higher salaries since they fill positions with more responsibility and have more experience. The following should be noted:

- Overall, the workforce population is projected to increase by 225 persons (0.2 percent), from 96,348 persons in 2011 to 96,573 persons in 2016.
- Persons 25 to 54 are projected to decrease while persons 18 to 24 and 55 to 64 are projected to increase.
- In the state of Connecticut, the workforce population is projected to decrease by 10,867 persons (-0.5 percent), from 2,246,764 persons in 2011 to 2,235,897 persons in 2016.
- Persons 35 to 54 are projected to decrease while persons 18 to 34 and 55 to 64 are projected to increase.

Table 3: Demographics of the Senior Population

Age Cohort	2011	2016	Change	Percent Change
65-74 Years	11,386	13,488	2,102	18.5%
75-84 Years	7,264	7,216	-48	-0.7%
85+ Years	3,710	3,976	266	7.2%
Total 65+ Years	**22,360**	**24,680**	**2,320**	**10.4%**

The following should be noted:

- Overall, the senior population is projected to increase by 2,320 seniors (10.4 percent), from 22,360 seniors in 2011 to 24,680 seniors in 2016.

- The only projected decrease is in the 75 to 84 years age cohort, which is a higher user of services than the 65 to 74 age cohort.
- Seniors 85 years of age and older, who are the highest users of senior services, are projected to increase by 7.2 percent.
- The senior population increase is actually lower than the state of Connecticut, which is projected to increase by 12.8 percent.
- In the state of Connecticut, none of the senior age cohorts are projected to decrease from 2011 to 2016.

Current Supply of Long-Term Care Facilities

Table 4 summarizes the current supply of long-term care facilities in the market area.

Table 4: Inventory of Long-Term Care Facilities

Map Key	Facility	Medicare Certified	Medicaid Certified	Private Rooms	Total Beds
1	**Connecticut Health of Greenwich** 1188 King Street, Greenwich, CT 06831	Yes	Yes	7	75
2	**Edgehill Health Center** 122 Palmers Hill Road, Stamford, CT 06902	Yes	No	18	60
3	**Greenwich Woods Health Care Center** 1165 King Street, Greenwich, CT 06831	Yes	Yes	39	217
4	**Long Ridge of Stamford** 710 Long Ridge Road, Stamford, CT 06902	Yes	Yes	26	120
5	**Regency Heights of Stamford LLC** 53 Courtland Avenue, Stamford, CT 06902	Yes	Yes	20	156
6	**Saint Camillus Rehab & Nursing Center** 494 Elm Street, Stamford, CT 06902	Yes	Yes	12	124
7	**The Nathaniel Witherell** 70 Parsonage Road, Greenwich, CT 06830	Yes	Yes	26	202
8	**The William and Sally Tandet Center** 146 West Broad Street, Stamford, CT 06902	Yes	Yes	22	130
Total		**8**	**7**	**170**	**1,084**

Source: State of Connecticut Department of Health.

The following should be noted:

- There are eight SNFs located in the market area with a total of 1,084 beds.
- All eight SNFs are Medicare-certified; only seven are Medicaid-certified.
- Approximately 16 percent of the beds are located in private rooms. As the facilities either rebuild or decrease the overall number of operational beds, it is likely more of the semi-private rooms will be converted into private rooms.

Figure 2 is a map of locations of existing long-term care providers. A key to the map can be found in Table 4.

Figure 2: Location of Long-Term Care Facilities

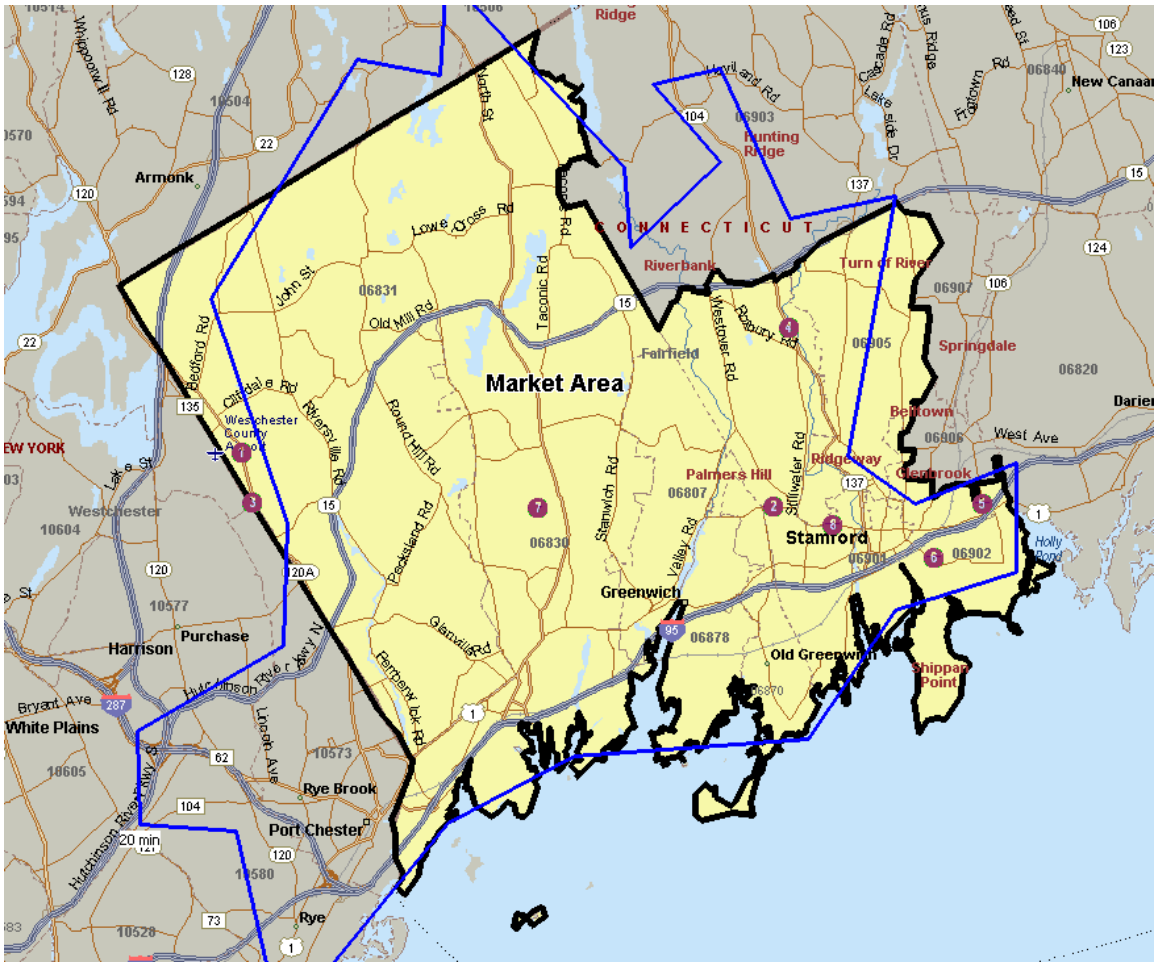


Table 5 on the following page summarizes the number of patient days at each of the market area nursing homes in 2009; 2009 data, although a couple years old, is the most recent data available and helps determine which nursing homes have the most Medicare patients.

Table 5: Patient Days for Long-Term Care Facilities

Facility	Medicare	Medicaid	Other	Total	ADC	Occupancy
Connecticut Health of Greenwich	4,738	17,690	3,154	25,582	70	93%
Edgehill Health Center	9,647	0	3,557	13,204	36	60%
Greenwich Woods Health Care Center	10,998	45,257	15,324	71,579	196	90%
Long Ridge of Stamford	8,204	23,053	6,842	38,099	104	87%
Regency Heights of Stamford LLC	6,232	43,099	3,466	52,797	145	93%
Saint Camillus Rehab & Nursing Center	4,742	33,194	3,380	41,316	113	91%
The Nathaniel Witherell	9,488	42,715	17,835	70,038	192	95%
The William and Sally Tandet Center	8,208	24,964	6,863	40,035	110	84%
Total	**62,257**	**229,972**	**60,421**	**352,650**	**966**	89%
The Nathaniel Witherell 2009 Market Share	15.2%	18.6%	29.5%	19.9%	19.9%	

Source: SNFdata.com.

The following should be noted:

- In 2009, TNW had a market share of 15.2 percent for Medicare patients. In order to reach future projections, TNW would have to increase the market share to approximately 24.1 percent, which is a substantial increase from 2009.
- To increase market share, TNW would need to divert Medicare patients from other market area long-term care facilities.
- As previously shown on Table 5, TNW already has the highest market share of "other" payors. Future projections would require TNW to increase their market share from 29.5 percent to 32.9 percent.

Long-Term Care Bed Demand

The demand for long-term care beds was calculated for the market area. Utilization for 2011, by age cohort, is based on actual 2008 state of Connecticut nursing home bed utilization; to project 2016 utilization, utilization was then decreased on an annual basis to mirror recent state of Connecticut decreases.

Tables 6 and 7 on the following page summarize 2011 and 2016 long-term care bed demand for the market area.

Table 6: Long-Term Care Bed Demand 2011

Age Cohort	Population	Utilization	Bed Demand
0-21 Years	42,823	0.0000512	2
22-30 Years	16,605	0.0001358	2
31-64 Years	73,465	0.0018877	139
65-74 Years	11,386	0.0158981	181
75-84 Years	7,264	0.0507313	369
85+ Years	3,710	0.1332476	494
Bed Demand	**155,253**		**1,187**
Existing Beds in Market Area			1,084
Unmet Demand (Excess)			**103**

Source: Nielsen Claritas, Inc.; Cowles Research Group's 2010 Nursing Home Statistical Yearbook; 2009 Nursing Home Compendium, and Health Dimensions Group methodology.

Table 7: Long-Term Care Bed Demand 2016

Age Cohort	Population	Utilization	Bed Demand
0-21 Years	42,948	0.0000461	2
22-30 Years	16,799	0.0001221	2
31-64 Years	72,782	0.0016968	123
65-74 Years	13,488	0.0142898	193
75-84 Years	7,216	0.0455992	329
85+ Years	3,976	0.1197681	476
Bed Demand	**157,209**		**1,126**
Existing Beds in Market Area			1,084
Unmet Demand (Excess)			**42**

Source: Nielsen Claritas, Inc.; Cowles Research Group's 2010 Nursing Home Statistical Yearbook; 2009 Nursing Home Compendium, and Health Dimensions Group methodology.

The following should be noted:

- In 2011, there is an estimated unmet long-term care bed demand of 103 beds.
- Although the overall population and senior population is projected to increase over the next five years, the unmet demand will decrease to 42 beds with the anticipated continued decrease in utilization.

- A precise distribution of bed demand by payor source cannot be done. However, a reasonable estimate can be made by applying the payor percentages from Table 5 (65% Medicaid, 18% Medicare, and 17% private pay/other)

The demand assumes there will be no change in the supply of beds over the next five years.

MEDICARE PART A BED OPPORTUNITY

This section of the report presents the opportunity for Medicare Part A skilled nursing beds at TNW.

Introduction

Due to the high number of competitive products located in and near the market area served by TNW, HDG estimated total opportunity for Medicare Part A skilled nursing beds from potential referring hospitals. The two hospitals analyzed include:

- Greenwich Hospital
- Stamford Hospital

Medicare Part A Skilled Nursing Facility Admissions

Medicare beneficiaries who need short-term skilled nursing care or rehabilitation services on a daily basis in an inpatient setting following a medically necessary hospital stay of at least three days qualify to receive covered services in a SNF. SNF services may be provided in freestanding or hospital-based facilities. In 2008, 93 percent of facilities were freestanding and 91 percent of Medicare covered SNF stays were in freestanding facilities. A freestanding SNF is typically part of a nursing home that also provides long-term care, which Medicare does not cover. Patients who are in a facility for a Medicare-covered skilled nursing stay are typically a small share of the total patient population in a Medicare-participating SNF. The remaining patients are non-Medicare skilled nursing care patients or long-term care residents. According to the Cowles Research Group, Medicare patients constituted 15.17 percent of the Connecticut payor mix in 2010, which is higher than the national average of 14.21 percent.

Medicare's prospective payment system (PPS) for SNF services involves prospectively determined per day payment rates covering all routine, ancillary, and capital costs as well as costs for many items and services that Medicare Part B reimbursed before the Centers for Medicare and Medicaid Services (CMS) implemented the SNF PPS. Under PPS, Medicare pays SNFs a set amount for each day of care, adjusted for the case mix group of each patient and geographic cost differences. The payment system adjusts the base payment rate by classifying each Medicare patient into a case mix group. Case mix groups are intended to group patients with similar predicted resource needs; weights associated with case mix groups adjust payments up or down depending on those needs. Patients' characteristics and service needs are determined by periodic assessments using the minimum data set (MDS). The case mix system for SNFs is called the resource utilization group (RUG).

Although Medicare beneficiaries are eligible to receive up to 100 days of skilled nursing care following an acute hospitalization of at least three days, the national ALOS is 27.3 days. In Connecticut, the average is 27.2 days.

Subacute Care

Subacute care is not defined by the federal government and is considered to be Medicare Part A skilled nursing care. However, subacute care units have been commonly defined in the industry as separate units with specialized nursing and therapies for short-term Medicare Part A skilled nursing patients with generally higher acuity levels (and thus, higher RUGs classifications) than the typical Medicare Part A skilled nursing patient. Such units are designed to attract short-stay patients who are seeking a dedicated program of post-acute nursing and rehabilitation with a focus on discharge to home.

Usually, subacute care units are distinct units where patients are separate from long-term care residents. Subacute care units include a significant proportion of private rooms with amenities characteristic of hospitals such as telephones, television, electric beds, and appropriate décor. Nursing includes 24/7 registered nurses (RNs) and nursing levels at 4.0–4.5 nursing hours per patient day depending on the acuity level of the subacute patient. Often, a separate physiatrist medical director or internal medicine/family practice physician/nurse practitioner team oversees care in the subacute unit, visiting each patient two to three times per week.

In a competitive SNF environment, subacute care units can be a significant positioning advantage for increasing the volume of Medicare Part A patients in a freestanding nursing facility.

Short-Term Care Market Area

The map in Figure 3 on the following page indicates the locations of TNW and the two analyzed acute care hospitals. A 20-minute drive time from TNW is outlined in blue and the market area is highlighted in yellow.

Figure 3: Location of Analyzed Acute Care Hospitals

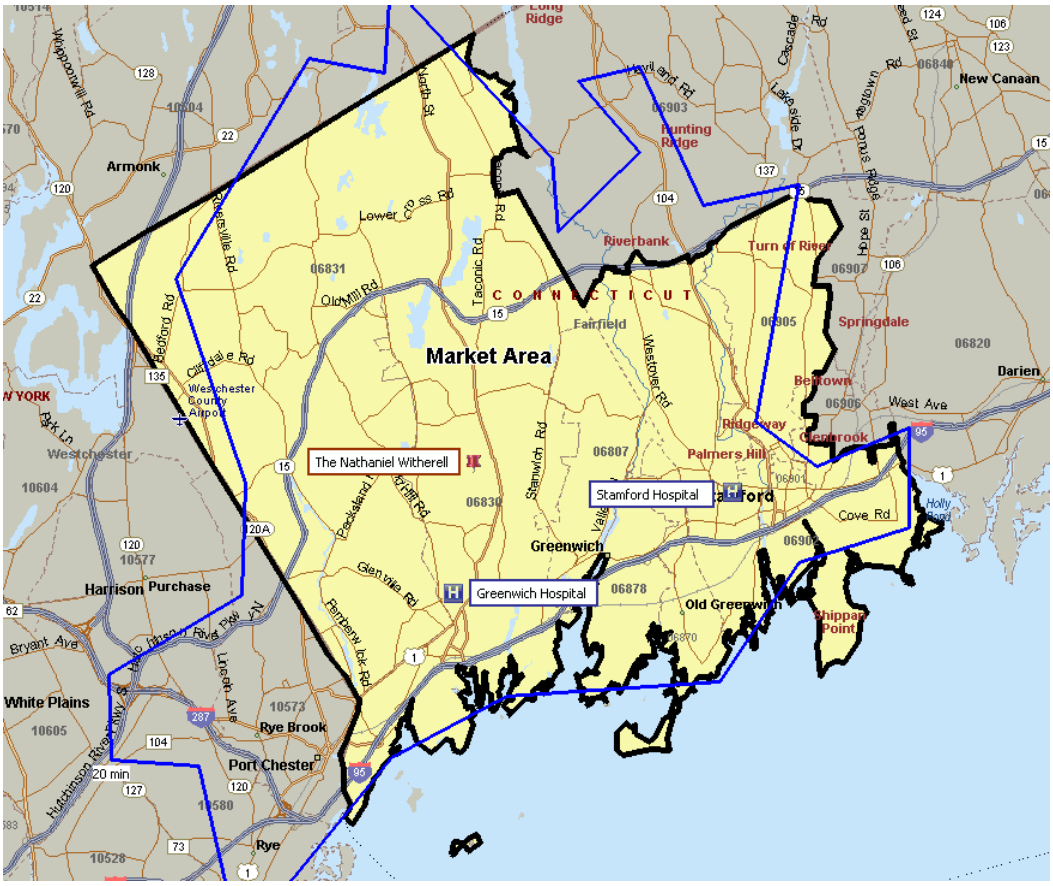


Table 8 shows the approximate distance and drive time to TNW from each of the two hospitals analyzed. The two hospitals are located an average of 3.9 miles and 12.5 minutes from TNW.

Table 8: Approximate Distance and Drive Time from Analyzed Acute Care Hospitals to TNW

Referring Hospital	Driving Distance (Miles)	Drive Time (Minutes)
Greenwich Hospital	2.2	8
Stamford Hospital	5.6	17
Mean	**3.9**	**12.5**
Median	**3.9**	**12.5**

Source: Microsoft MapPoint North America 2010.

Table 9 shows the hospitals analyzed and the number of nursing homes located within 10 and 25 miles of the ZIP code in which each hospital is located. It is important to note many of the nursing homes overlap. There is an average of 12.5 nursing homes located within 10 miles and 94.5 nursing homes within 25 miles of the ZIP codes in which each hospital is located.

Table 9: Number of Nursing Homes Located Near Referring Hospitals

Referring Hospitals	ZIP Code	Nursing Homes within 10 Miles	Nursing Homes within 25 Miles
Greenwich Hospital	06830	14	114
Stamford Hospital	06904	11	75
Mean		**12.5**	**94.5**
Median		**12.5**	**94.5**

Source: Medicare.gov.

It should be noted that Stamford Hospital has a 17-bed inpatient rehab unit. According to the American Hospital Directory, last year the unit had an ADC of 8.5 Medicare patients, 0.5 Medicaid patients, and 3.5 other payors for a total ADC of 12.5.

Discharge Analysis

HDG's methodology for Medicare Part A skilled nursing bed demand is based on an analysis of patients discharged from area acute care hospitals to a SNF following an acute care stay from October 2008 through September 2009. For this study, conservative criteria were utilized for identifying potential admissions. For patients discharged from the analyzed hospitals, a patient was counted as a candidate for admission to a Medicare Part A SNF bed if the following conditions were met:

- Medicare patient was discharged to a SNF.
- Acute hospital stay was three days or more.
- Acute hospital stay was classified in any Medicare-severity diagnosis-related group (MS-DRG) except for chemical dependency or psychiatry.
- Patient was not ventilator dependent.
- Patient was 65 years of age or older.

During the timeframe analyzed, there were a total of 10,049 Medicare discharges. Using the above criteria, 2,626 of the discharges qualified for a Medicare Part A stay.

Short-Term Care Bed Opportunity Analysis

After determining the estimated number of Medicare persons eligible for a Medicare Part A stay, additional assumptions were analyzed to determine the actual bed opportunity.

Primary Referring Hospital Opportunity Assumptions

The following opportunity assumptions were used to calculate opportunities from the analyzed hospitals. These assumptions include: new Medicare admissions, patient days, and Medicare Advantage.

New Medicare Admissions

During the timeframe analyzed, there were a total of 2,626 Medicare discharges from the two analyzed hospitals that qualified for a Medicare Part A stay. Nationally, approximately 25 percent of discharges into a SNF are readmissions from the SNF of origin. Readmissions are unlikely to be cared for in the subacute since they could be cared for in their long-term care bed. In addition, it is difficult to compete for these admissions since these patients will most likely choose to be cared for in the long-term care facility that is their home. To eliminate these readmissions, a conservative 25 percent of the qualified discharges were eliminated from the patient pool, resulting in 1,970 potential new admissions.

Patient Days

Although Medicare beneficiaries are eligible to receive up to 100 days of skilled nursing care following an acute hospitalization of at least three days, the national ALOS is 27.3 days. In Connecticut, the average is 27.2 days. The 27.2-day ALOS includes readmissions, which typically have a higher ALOS.

Not all new Medicare admissions will be discharged home after being cared for in the subacute. It is estimated that approximately 10 percent will transfer to long-term care. These patients will have a higher ALOS since they are frailer and will likely require long-term care after their stay in the subacute unit. For this analysis, it is assumed the ALOS will be approximately 20 days for 90 percent of the new admissions (who will be discharged home after their stay), which is typical for a subacute unit in a standalone SNF. For the ten percent of new Medicare admissions that will be transferred into long-term care, it is assumed their ALOS will be 35 days, which is approximately the state of Connecticut's average for readmissions for persons being transferred into long-term care.

Medicare Advantage

Although Medicare payors will make up the majority of persons served in the subacute unit, persons with Medicare Advantage will also be cared for in this setting. The MedPAR data used in the analysis does not include Medicare Advantage discharges. It is assumed the percent of persons discharged from the hospitals that used Medicare Advantage as their primary payor

source will mirror the Medicare Advantage penetration rate of the county. It is assumed the penetration rate of each hospital will be the same as the county it is located.

The MedPAR data used in this analysis is for the time period October 2008 through September 2009. In September 2009, the state of Connecticut had a penetration rate of 17.20 percent, which was lower than the national average of 23.88 percent. The two analyzed acute care hospitals are both located in Fairfield County, which, in 2009, had a higher penetration than the state but lower than the national average. Listed below in Table 10 is the Medicare Advantage penetration rate for each county in Connecticut, the state of Connecticut, and national averages for September 2009 and June 2011.

Table 10: Medicare Advantage Penetration in Connecticut

Geography	September 2009	June 2011
Fairfield	18.29%	19.30%
Hartford	18.57%	21.11%
Litchfield	9.49%	12.89%
Middlesex	14.27%	17.27%
New Haven	20.26%	22.63%
New London	9.75%	12.50%
Tolland	15.48%	18.92%
Windham	13.46%	16.75%
Connecticut	17.20%	19.47%
United States	23.88%	25.09%

Source: Centers for Medicare and Medicaid Services.

The analysis assumes Medicare Advantage had a penetration of 18.29 percent at both of the analyzed acute care hospitals. As summarized in Table 11, there is an estimated ADC of 142 subacute beds being discharged from the two analyzed sources.

Table 11: Subacute Potential from Analyzed Acute Care Hospitals

Hospital Name	Total Medicare Part A	75% New Admissions	90% New Admissions 20-Day ALOS	10% New Admissions 35-Day ALOS	Average Daily Census (ADC)	ADC with Medicare Advantage
Greenwich Hospital	1,320	990	49	9	58	71
Stamford Hospital	1,306	980	48	9	58	71
Total	**2,626**	**1,970**	**97**	**19**	**116**	**142**

Source: Medicare Provider Analysis and Review, Centers for Medicare and Medicaid Services, and Health Dimensions Group analysis.

Overall Subacute Bed Opportunity

After analyzing the ADC of subacute patients discharged from the two primary referring hospitals, HDG calculated the overall subacute ADC. To calculate the overall potential, other referral sources and total bed need were taken into account.

Referral Source Analysis

Not all subacute beds will be filled by the primary referring hospital. It is assumed ten percent of beds will be filled by other referral sources, which is consistent with the previous report completed by HDG in 2009.

Subacute Average Daily Census

Table 12 shows the size of the unit supported by various capture rates from TNW and assuming ten percent of future admissions will come from other hospitals. Moreover, most dedicated subacute units operate at an occupancy level of 90 percent to 95 percent due to the high volume of admissions and discharges related to a relatively short ALOS. The analysis assumes the subacute unit will operate at 90 percent occupancy.

Table 12: Subacute Unit Size for New Admissions at Potential Capture Rates

Hospital Name	ADC with Medicare Advantage	15.00%	17.50%	20.00%	22.50%	25.00%	27.50%
Greenwich Hospital	71	11	12	14	16	18	20
Stamford Hospital	71	11	12	14	16	18	19
Total Primary Referring Hospital ADC	**142**	**21**	**25**	**28**	**32**	**35**	**39**
Commercial Payors (Non-Medicare Adv) ADC		4	4	4	4	4	4
ADC from Other Referral Sources (10%)		3	3	4	4	4	5
Total Subacute Average Daily Census		28	32	36	40	44	48
Total Bed Need at 90% Occupancy		**31**	**36**	**40**	**45**	**49**	**53**

Source: Medicare Provider Analysis and Review, Centers for Medicare and Medicaid Services, and Health Dimensions Group analysis.

Using the Connecticut ALOS for subacute patients, a 40-bed subacute unit could be supported by capturing 20.5 percent of potential discharges from the two primary referring hospitals, having an ADC of 4 non-Medicare Advantage Commercial patients, filling 10 percent of the beds with other referral sources, and assuming 90 percent occupancy.

The subacute unit is not inclusive of all Medicare patients. Readmissions are not included in the demand since they will likely be cared for in the long-term care bed they previously occupied. Readmissions also average a much longer stay.

OVERALL MEDICARE BED DEMAND ANALYSIS

Not all Medicare patients will be cared for in the subacute. Readmissions, which are persons who already live in the nursing home, will also occasionally have a hospital stay that requires rehabilitation services. These persons, however, will typically be cared for in their long-term care bed instead of the subacute.

Readmission Assumptions

The actual percentage of Medicare readmissions into the nursing home was not available. Based on historical Medicare census, TNW is projecting that it will have approximately six Medicare ADC readmissions. This data is summarized in Table 13.

Table 13: Overall Medicare/Medicare Advantage Bed Demand Analysis

Hospital Name	15.00%	17.50%	20.00%	22.50%	25.00%	27.50%
Total Subacute Average Daily Census	28	32	36	40	44	48
Less Non-Medicare Commercial ADC	-4	-4	-4	-4	-4	-4
Medicare Readmission ADC	6	6	6	6	6	6
Total Medicare/Medicare Advantage ADC	30	34	38	42	46	50

Source: Medicare Provider Analysis and Review, Centers for Medicare and Medicaid Services, and Health Dimensions Group analysis.

If the subacute had an ADC of 32 persons with Medicare or Medicare Advantage, and an additional 6 persons were readmissions, then the building would have an overall Medicare/Medicare Advantage census of 38 persons.

Demographic Impact

Demographics of the senior population (65 years of age and older) and nursing homes have been gradually changing over the past decade. From 2006 to 2010, the overall nursing home census nationally has decreased by 2.6 percent and in Connecticut by 5.1 percent; census has decreased despite a senior population increase of 8.3 percent nationally and 1.5 percent in Connecticut during the same time period.

Interestingly, although overall nursing home census is decreasing, Medicare census has been increasing. Nationally, from 2006 to 2010, Medicare census has increased by 4.1 percent; Connecticut, however, has actually experienced a decrease of 11.8 percent.

Table 14 on the following page summarizes changing nursing home census from 2006 to 2010.

Table 14: Nursing Home Demographic Changes 2006-2010

Geography	2006	2010	Change	Percent	Overall SNF Census
Connecticut	27,364	25,972	-1,392	-5.1%	
National	1,433,523	1,396,473	-37,050	-2.6%	
Geography	**2006**	**2010**	**Change**	**Percent**	**Medicare SNF Census**
Connecticut	4,467	3,939	-528	-11.8%	
National	190,686	198,438	7,752	4.1%	

Source: Cowles Research Group's 2006 and 2010 Nursing Home Statistical Yearbooks.

Similar to the increase (nationally) and decrease (Connecticut) in Medicare census, in 2010 Medicare payors account for a different percentage than in 2006. In 2006, Medicare accounted for 13.30 percent of the national census and 16.32 percent of the Connecticut census. In 2010, Medicare increased to 14.21 percent of the national census and decreased to 15.17 percent of the Connecticut census.

As shown on Table 15, the senior population has been changing at both the national and state level. Seniors 85 years of age and older, who are the highest users of services, have increased by 14.7 percent nationally but have decreased by 5.3 percent in Connecticut.

Table 15: Senior Population Demographic Changes 2006-2010

Geography	2006	2010	Change	Percent	Senior Population 65+
Connecticut	486,362	493,803	7,441	1.5%	
National	37,551,340	40,678,969	3,127,629	8.3%	
Geography	**2006**	**2010**	**Change**	**Percent**	**Senior Population 75+**
Connecticut	258,030	240,522	-17,508	-6.8%	
National	18,240,436	19,098,611	858,175	4.7%	
Geography	**2006**	**2010**	**Change**	**Percent**	**Senior Population 85+**
Connecticut	85,332	80,847	-4,485	-5.3%	
National	5,168,904	5,931,055	762,151	14.7%	

Source: Nielsen Claritas, Inc.