# Sussex County Board of Freeholders



Operations Assessment – The Homestead

PARENTER ANDOLPH

The Power of Ideas

September 2006

### Table of Contents

The second of th

itroduction and Use of Our Report	:
Executive Summary	(4)
Organizational Structure	
Financial and Revenue Cycle	
Nursing Department Staffing	1
Medicare Part A	,
RUG Comparison	.25
Length of Stay	28
Medicaid Acuity	31
	.33
	.36
	38
Housekeeping Services	4
Laundry Services	44
ment	.46
	.50
	.54
Social Services	.57
Summary of Findings with Potential Annual Financial Impact	99.
Attachment A: Market Assessment	
Attachment B: Facility Assessment	

# Introduction and Use of Our Report

The enclosed report summarizes key findings of the skilled nursing operations and performance improvement assessment for The Homestead. Parente Randolph, LLC ("Parente") has assembled, from information provided by management of Randolph has not compiled or examined the financial data and potential financial impacts, and as expected, and those differences may be material. The enclosed report is intended solely for the internal use of Management, and is not intended for use by those who have not agreed to the procedures and taken responsibility for the sufficiency of the procedures for their purposes. Since The Homestead ("Management"), the accompanying performance improvement report. Parente therefore expresses no assurance of any kind on them. Further, there will usually be differences between the potential and actual results because events and circumstances frequently do not occur our procedures do not constitute an examination, we are not expressing an opinion, or any other form of assurance, on the findings resulting from our procedures. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. Parente does not and will not have any responsibility or obligation to monitor the implementation or the realized impact of any recommendations identified in this report. We have no responsibility to update the report for events and circumstances occurring after the date of our report.

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### **Executive Summary**

Overview of the Engagement

Sussex County engaged Parente to assist with a comprehensive business evaluation of The Homestead ("Homestead"), a 102-bed nursing facility owned and operated by Sussex County. Our engagement to provide professional services to Sussex County is comprised of three separate Phases:

Phase I: Operations Assessment

Phase II: Physical Plant Assessment

Phase III: Market Assessment

The results of our work efforts for Phase I are summarized in the enclosed report. We have provided deliverables associated with Phase II and Phase III under separate cover.

levels of occupancy, Homestead is generating significant operating losses. Sussex County is interested in identifying opportunities for revenue improvement or cost containment which could Homestead has experienced traditionally high occupancy levels (approximates 99% at present) and serves a resident population that is predominantly a Medicaid payer type. Despite its generally high potentially reduce the amount of subsidy that is being provided by Sussex County to Homestead to support on-going operating needs.

### **Executive Summary**

The sections of the report that follow address each area of Homestead's operations in terms of:

- Current Reality;
- Key Performance Indicators;
- Recommendations; and
- Potential Annual Financial Impact.

The observations and comments enclosed are a result of our on-site work, document review, observation, analysis and other procedures performed as of September 27, 2006 per the terms of our May 24, 2006. Since the procedures we performed did not constitute an examination, we have not engagement letter and resolution approved by the Sussex County Board of Chosen Freeholders on expressed an opinion on the findings resulting from our procedures.

Management is solely responsible for implementation of initiatives intended to improve the operating and financial performance of Homestead as a result of information obtained from the enclosed report.

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### **Executive Summary**

# Considerations for the 4<sup>th</sup> Floor of Homestead

As a separate consideration for our engagement, Management has indicated its desire to consider alternatives for renovating the presently vacant and un-finished 4th floor of the Homestead's facility as a venue to provide services to seniors in Sussex County. The Market Assessment associated with Phase III of the engagement (see Attachment A) provides insights on the demand for senior services provides insights on the required changes to facility infrastructure should Sussex County pursue in Sussex County, while the Facility Assessment associated with Phase II (see Attachment B) renovations on the 4<sup>th</sup> floor of the facility.

capital cost of renovations to existing facility infrastructure plus the additional costs to finish the 4<sup>th</sup> Based on the detailed information provided in the aforementioned reports, we do not recommend that Sussex County pursue renovations to the 4<sup>th</sup> floor at this time. While the Market Assessment costs involved with modifying facility infrastructure to provide for renovation of the 4th floor for on the 4th floor of the Homestead's facility would likely not generate sufficient payback to repay the such uses. Operations of an assisted living or independent housing for seniors' type product offering does indicate a demand for moderately priced assisted living product and moderately priced housing for seniors in the local marketplace, the Facility Assessment indicated that there are likely significant

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### **Executive Summary**

### Employee Benefits Expenses

and distinct area of financial opportunity. All current employees participate in Sussex County's Employee Benefits expenses are not referenced in the enclosed sections of the report as a separate employee benefit and welfare programs, and so long as this arrangement continues, Homestead will be unable to independently initiate changes in the benefit structure for its employees which would allow Homestead to reduce benefits costs.

The cost of Homestead's benefits plan is significantly higher than comparable not-for-profit nursing providers as indicated below:

•	• Homestead cost of benefits and employer share of payroll taxes (2005):	41.82%
•	• Comparable not-for-profit nursing providers:	28.00%
,	11 1 1 1 2 1 2 1.	*170 027 13
•	• Homestead salaries and wages for the fire 12/31/02.	ロープ・イント・トウ
•	• Benefits costs @ 41.8%	1,856,500
•	• Benefits costs (a) 28.0%:	1,242,995
•	Difference:	\$ 613.505

\*Source: Homestead 2005 Medicaid Cost Report

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### **Executive Summary**

The additional benefits costs for Homestead are a significant cost to be borne by operations of the facility. If present trends in third-party reimbursement continue, the increases in benefit costs from may wish to consider outsourcing certain services and functions to a third-party. Depending on the and benefit costs may assumed by the third-party service provider. Benefit costs for such service Outsourcing may, as a result, be an additional opportunity to reduce expenses not otherwise year to year may outpace the growth in third-party revenues. Given such realities, Sussex County provisions of an agreement with a third-party service provider, employees and the associated salary providers are likely to be generally lower than the present costs experienced by Homestead. quantified in the sections of the report that follow.

## Organizational Structure

#### Current Reality:

- The facility is operated under the direction of a licensed Nursing Home Administrator.
- o The Administrator has provided notice that she has accepted a position with the Department of Aging and will be leaving her position at Homestead.
- o A search has been initiated to recruit a replacement.
- The Assistant Administrator position hours were recently changed to provide coverage into the evening shift.
- The former Secretarial Assistant was appointed as the Acting Assistant Administrator.
- The Secretarial Assistant position had not been filled as of the conclusion of our site work; however, Management indicated the position has since been filled with temporary staff.

## Organizational Structure

### Current Reality (Cont'd):

- The facility has a collective bargaining agreement with The Communications Workers of America, AFL-CIO, Local 1032 that was ratified in May 2005.
- o The contract covers all employees except the Nursing Home Administrator.
- o The fact that Department Directors are also members of the union that represents the personnel that are subordinate to them was noted to have a detrimental impact on effective management of the operating departments.
- Administration consists of the following full-time equivalents ("FTE"):

	Licensed Nursing Home Administrator		丘
	Acting Assistant Nursing Home Administrator		Ħ
*	Secretarial Assistant (currently		
	filled with temporary staff)		
		•	-

- Homestead receives certain Administrative and Facilities Management support services through Sussex County.
- o The level of service and associated cost of such services provided by Sussex County is not considered inappropriate, relative to the scope of Homestead operations.

## Organizational Structure

### Current Reality (Cont'd):

• The following positions are direct reports to either the Administrator or Assistant:

	Admin. Supervisor of Nursing Coordinator of Volunteers	I FIE
	Activity Coordinator	1 FTE
	Social Worker	1 FTE
_	Director of Food Service	1 FTE
**	Supervisor of Accounts	I FTE
_	Building Superintendent	1 FTE

### Recommendations:

- The new administrator, in conjunction with the Department Administrator should evaluate all positions with regard to the scope of responsibilities and reporting lines.
  - o Evaluate position descriptions for all of the positions identified above for exclusion from the union.
- Evaluate the authority to evaluate performance, make hiring and termination decisions or recommendations, etc. 0
- Consult labor counsel to assist in this process.
- Open discussions with union representatives.

Business Office Staffing

#### Current Reality:

The Business Office is responsible for all activities related to billing and collections, accounts payable, and maintenance of resident Personal Needs Accounts. Staffing consists of three (3) FTE's, with primary responsibilities as follows:

Medicaid, and Private Pay billing; assists with therapy charge data entry; and maintains daily census Supervisor of Accounts: Oversees all activities of the Business Office; completes Medicare, all information. Maintains resident Personal Needs Accounts; completes redeterminations for Medicaid residents; completes Medicaid claim adjustments; posts cash receipts; and assists with therapy charge data entry. Senior Account Clerk (AR):

Senior Account Clerk (AP): Responsible for processing accounts payable.

Billing Processes and Information Flow

#### Current Reality:

admission) and in writing (once the newly admitted resident has arrived). The Supervisor of information to the Supervisor of Accounts. Communication takes place both verbally (prior to the The facility Social Worker is responsible for the admissions process and for communicating Accounts feels that this process is working well and that communication is accurate and timely.

the clinical software system and generating a face sheet from this system. Once the Supervisor of Accounts receives the face sheet, she performs an interface to bring the demographic information from the clinical system into the billing system. Census changes are communicated from the nursing The facility utilizes Add-On billing software, a component of the Accu-Med clinical software system. The nursing department is responsible for entering resident demographic information into department to the billing department by means of status change forms. Although there is an interface between Accu-Med and Add-On for resident demographic information, Medicare Resource Utilization Group ("RUG") scores are communicated to the According to the Supervisor of Accounts, she does not receive Medicare RUG scores until Business Office on paper and entered into the Add-On system by the Supervisor of Accounts. approximately the 15<sup>th</sup> of each month.



Billing Processes and Information Flow

### Current Reality (Cont'd):

Medicare claims are created through the Add-On system and billed electronically to the Medicare Fiscal Intermediary. Medicaid claims are billed on paper via Turnaround Documents.

all coinsurance is billed to the residents, and if the facility receives payment from a third party, the Because private pay room charges are all-inclusive, private statements include only room and board and Medicare coinsurance. The facility does not bill Medicare coinsurance to third parties. Rather, resident is refunded.

types. Additionally, the billing software is not utilized to determine revenue for profit and loss or receivables are tracked by means of billing registers created by the Supervisor of Accounts, but there budgeting purposes. Revenue for the facility is recognized only when payments are received and Cash receipts are maintained in QuickBooks and are also posted into the Add-On system. Although an Aged Receivable report is created in the Add-On system, the Supervisor of Accounts does not feel that it is accurate and, consequently does not use it. Medicare Part A and Part B outstanding does not appear to be a formal system in place to assure collection of receivables for the other payer remitted to the Sussex County Treasurer.

Accounts Receivable Analysis

#### Current Reality:

The table below illustrates the status of Accounts Receivable based on the Aged Receivable Report as of July 31, 2006.

		Jul 06				91+ Days per Payer as % of Total 91+	91+ Days as % of Payer
	Total	Current	31-60 Days	31-60 Days 61-90 Days	91+ Days	Days	Lotal
Hospice	\$ 5,391	•	\$	ı \$	\$ 5,391	1.78%	100.00%
Medicare A	160,118	7,048	23,578	34,963	94,529	31.32%	59.04%
Medicare B	19,471	(2,294)	\$	12,268	9,497	3.15%	48.78%
Medicaid	819,142	357,473	338,390	3,768	119,511	39.60%	14.59%
Medigap	23,923	ł	\$	ı	23,923	7.93%	100.00%
Private	250,637	175,482	17,228	8,975	48,952	16.22%	19.53%
TOTAL	\$1,278,682	\$537,709	\$379,196	\$59,974	\$301,803	100.00%	23.60%
Percent	100%	42%	30%	2%	23%		

As indicated in the table above, Medicaid receivables constitute the highest percentage of receivables over 90 days. Also noteworthy is the fact that a significant percentage of Medicare Part A and Part B receivables are over 90 days (59% and 49% respectively).



Accounts Receivable Analysis

## Key Performance Indicator:

20%
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Industry Standard Percent

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#### Recommendations

Variance

- Analyze the Aged Receivable Report to determine what issues currently exist that hinder its accuracy, and work with software vendor to resolve these issues.
  - Develop a formal system to assure that outstanding receivables are reviewed regularly and that the necessary action is taken to resolve outstanding balances.
- o Initial focus should be on Medicaid and Medicare Part A and Part B receivables over 90
- Explore the possibility of an interface between the clinical and billing system for Medicare RUG information.
- Assistance billing, she could benefit from in-depth training regarding all aspects of the revenue cycle. Particular emphasis should be placed on the Medicare Prospective Payment System, as Although the Supervisor of Accounts has a basic knowledge of Medicare and Medical well as maximizing her ability to utilize all available billing-related technology.

Accounts Receivable Analysis

## Recommendations (Cont'd):

- O Work with the nursing department to develop a realistic deadline for the completion of the majority of Minimum Data Set ("MDS") assessments, which will allow Medicare to be paid in the same month that it is billed.
  - Explore the possibility of electronic submission of Medicaid claims.

Potential Financial Impact:

None

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### Nursing Administration

#### Current Reality:

• Nursing administration consists of the following positions:

Nursing Administration	FTES
Admin. Supervisor of Nursing	1.00
Principle Clerk Typist	1.00
Assistant Supervisor of Nurses	3.00
RN Assessment Coordinator ("RNAC")	1.00
Staff Development	1.00
Unit Clerk(s)	2.00
	9.00

- Homestead maintains low Medicare Part A census relative to the total bed compliment and MDS completion process.
  - A Unit Clerk is assigned to each of the resident care units.
- There are few admissions processed each month.

### Nursing Administration

### Recommendations:

- completion of specific sections of the MDS, however there is not another individual who has retain a second individual who understands the MDS completion process, has access to the passwords for submission to the state data base, and can support the full time coordinator in submission. Other members of the interdisciplinary team have assigned responsibilities for been thoroughly cross-trained in the full MDS assessment process. Currently the Supervisor or Assistant Supervisor of Nurses provides backup in the absence of the RNAC. It is important to order that the billing of Medicare claims would not be interrupted if there should be an There is 1 FTE RNAC who is responsible for organizing the process of MDS completion and unanticipated absence.
  - Reduction of 1 FTE Unit Clerk.
- Facilities of similar size and larger operate with 1 Unit Clerk.
- will drive an increased workload for Unit Clerks in the processing of admission records, Homestead does not have a high volume of admissions, or sub-acute level residents that closing records, and processing new physician orders, appointments, etc.

### Nursing Administration

## Potential Financial Impact

\$45,900

	Current	Proposed	HEAL	Deto	Salary
Nursing Administration	FILS	FIES	y ariance	Mate	v al lauce
Admin. Supervisor of Nursing	1.00	1.00	ı	•	4
Principle Clerk Typist	1.00	1.00	į.	*	l .
Assistant Supervisor of Nurses	3.00	3.00	<b>t</b>	<b>1</b>	ı
RN Assessment Coordinator	1.00	1.00	1	<b>3</b>	ı
Staff Development	1.00	1.00	4	ì	t
Unit Clerk(s)	2.00	1.00	(1.00)	15.35	(31,928)
	<u>00.6</u>	8.00	(1.00)		(\$31,928)

Benefits at 43.81% (\$13,988)
Potential Cost Reductions (\$45,916)

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Direct Care Staffing

#### Current Reality:

2nd & 3rd Floors	CURRENT	CURRENT STAFFING PATTERN	ATTERN	
Position	7-3	Mid Morn	3-11	11-7
RN Ast. Sup. of Nurses	2		<b>,</b>	
RN			2	<del></del>
LPN	4		2	2
CNA	14		10	8
Restorative		2		
Day Room		2		
TOTAL	20	4	15	П

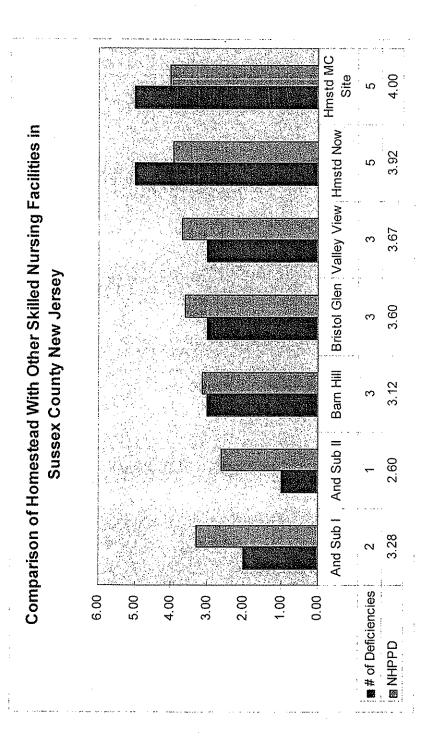
This staffing pattern provides for 3.96 Nursing Hours Per Patient Day ("NHPPD") based on an 8 hour worked shift at present occupancy levels (approximating 99%).

o NHPPD as reported on the CMS website for Homestead were 4.00 based on 98% occupancy.

The current NHPPD of 3.96 is a reflection of positions that vacated and have not been . O

Direct Care Staffing

## Key Performance Indicators:





### Direct Care Staffing

### Recommendations:

- Elimination of 2 LPN positions on the 7-3 shift.
- o RN coverage will be maintained for each of the units.
- Reduction of CNA positions to maintain a 1:8-9 ratio on the day shift, a 1:11-12 ratio on the evening shift, and a 1:14-15 ratio on the night shift.
  - o Further reductions in CNA positions were considered on the night shift. However, this is not recommended due to the physical plant configuration of the units being located on two floors.

Direct Care Staffing

## Recommendations (Cont'd):

2nd & 3rd Floors	CURRENT	CURRENT STAFFING		
		Mid		
Position	7-3	Morn	3 - 11	11-7
RN Ast. Sup. of Nurses	2			
RN			2	<b>,</b>
LPN	4		2	2
CNA	14		10	8
Restorative		2		
Day Room		2		
TOTAL	20	4	15	Ξ

2nd & 3rd Floors	PROPOSEI	PROPOSED STAFFING		
Position	7-3	Mid Morn	3-11	11-7
RN Ast. Sup. of Nurses	2		<b>,</b> 1	
RN				· · · · · ·
LPN	2		2	2
CNA	12		6	7
Restorative		2		
Day Room		2		
TOTAL	16	4	13	10

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Direct Care Staffing

## Potential Financial Impact

\$569,800

	Current	Proposed	FTE		Salary
Positions	HIE	FTE	Variance	Rate	Variance
RN Ast. Sup. of Nurses	4.21	4.21	ì	+	<b>↔</b>
RN	4.21	2.81	(1.40)	25.00	(72,800)
LPN	11.23	8.42	(2.81)	21.70	(126,832)
CNA	44.92	39.31	(5.61)	16.85	(196,619)
Restorative	2.81	2.81	1	ı	F
Day Room	2.81	2.81	*	1	### A Part of the
	70.19	60.37	(6.82)		(\$396.251)

Benefits at 43.81%  Potential Cost Reductions (\$\sqrt{8}\$	(173,598)
Current Whole House NHPPD	3.96
Proposed Whole House NHPPD	3.40
Variance	0.56

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# Medicare Part A RUG Comparison

#### Current Reality:

- Medicare RUG levels for residents of Homestead for the period May 2005 through May 2006 reflect the following:
  - o Below the state average for those rehab categories that combine rehab services with extensive, special care, and clinically complex care needs.
- The same three RUG groupings are 6% below the state average in the aggregate, indicating few residents are qualifying for skilled nursing care under Medicare Part A for care needs such as tube feeding, tracheostomy care, wound care, etc. 0

## Key Performance Indicators:

Selected Benchmark: All New Jersey Facilities	III New Je	rsey Facili	ties
Medicare RUG Grouping	N	Facility	Variance
Rehab Plus Extensive Services	767	10%	(16%)
Rehab	55%	81%	26%
Extensive Services	7%	%9	(1%)
Special Care	4%	%0	(4%)
Clinically Complex	4%	3%	(1%)
Other	1%	0%0	(1%)

# Medicare Part A RUG Comparison

### Recommendations:

- services that would assist in driving the "Plus" RUGs by utilizing the permitted hospital look-Request medical records from the hospital stay that will assist the RNAC in determining those back period on the 5 and 14 day Medicare MDS assessments.
- Provide training for appropriate nursing personnel related to Medicare coverage of services for skilled nursing in order to provide increased assurance that Special Care and Clinically Complex RUG categories are correctly captured.
- residents in the Special Care and Clinically Complex RUG categories, and arrange for Evaluate skill sets of nursing personnel to provide the level of services required to care for appropriate competency evaluation and training.

# Medicare Part A RUG Comparison

## Potential Financial Impact:

\$13,300

Selected Benchmark: All New Jersey Facilities	All New Jer	sey Faciliti	ies
Medicare RUG Grouping	N	Facility	Variance
Rehab Plus Extensive Services	\$129,599	\$129,599 \$ 45,171 (\$84,428)	(\$84,428)
Rehab	211,004	300,702	869,68
Extensive Services	23,709	19,874	(3,835)
Special Care	10,642	ı	(10,642)
Clinically Complex	8,356	7,272	(1,084)
Other	2,980		(2,980)
Totals	\$386,290	\$386,290 \$373,019 (\$13,271)	(\$13,271)

Potential Improvement of \$13,271 annually, if Homestead shifts RUG categories to NJ percentages.

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## Medicare Part A Length of Stay

#### Current Reality:

- Average Length of Stay ("LOS") for Medicare Part A residents is 20 days based on Medicare census days and RUG category information provided by Management.
- Ninety-one percent (91%) of Medicare Part A residents are Medicare skilled for therapy
- Few Other Medicare Required Assessments ("OMRA") assessments are completed.
- o This may indicate a lack of understanding of the Medicare skilled coverage of services criteria for nursing services vs. rehab services.

## Key Performance Indicators:

National Average Medicare Part A Length of Stay	33 Days
Homestead Medicare Part A Length of Stay	20 Days
Variance	13 Days



## Medicare Part A Length of Stay

#### Recommendations:

- Encourage a holistic approach to discussions during Medicare Part A resident review of continued stay to determine skilled nursing needs including professional observation, assessment and management of the plan of care.
  - The RNAC should routinely take opportunity to reassess residents skilled for rehabilitation to determine potential extended stays for additional clinical needs.
- Encourage therapists to extend treatment services beyond the 21st day of the Medicare stay to include additional community re-entry services and safety, when reasonable and necessary.
- Explore the market potential for growth in short-term rehab residents.
- Determine existence of Medicare supplemental insurance prior to admission.
- o Discuss insurance coverage with residents/responsible parties at time of admission.
- This may encourage those who have supplemental insurance to remain beyond the 21st day if they understand they will have no out-of-pocket expense. 0

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## Medicare Part A Length of Stay

## Potential Financial Impact:

\$85,900

The second secon

Estimated CURRENT Annual Gross MC Part A Revenue \$373,795	Potential MC Gross. Revenue \$616,762	Estimated Annual Gross Revenue \$273,034	\$343,728	25% \$ 85,932
Average MC Per Diem Payment per Resident \$389.37	Average MC Per Diem Payment per Resident \$389.37	Average MA Per Diem Payment per Resident \$172.37		ø
Average MC Resident Days/Year 960	Average MC Resident Days/Year 1,584	Average MC Resident Days/Year 1,584	Gross Revenue difference between Medicare and Medicaid	Margin on additional MC Revenues Potential Improvement
Homestead Average MC LOS 20.00	National Average MC LOS 33.00	National Average MC LOS 33.00	Gross Revenue differenc	
# MC Residents per year 48	# MC Residents per year 48	# MC Residents per year 48		
Current # MC	LOS Increases by 13 Days to National Average			

Note: "MC" is an abbreviation for "Medicare" and "MA" is an abbreviation for "Medicaid".

### Medicaid Acuity

#### Current Reality:

- The New Jersey Medicaid payment system for skilled nursing facilities requires reporting of resident acuities in order to determine whether or not a facility is eligible for an increase in the per diem payment based on actual resident conditions.
  - The acuity areas that afford opportunity for improved Medicaid reimbursement are:
    - o IV Therapy;
- Oxygen Therapy;
- o Tracheostomy Care;
- Wound Care; and
- o Tube Feedings.
- the facility, MDS assessments, medical records, and month end tallies of resident acuity, Based on resident interviews with nursing administrative personnel, resident data provided by Homestead maintains a low resident acuity population.
- O At the time of our review there were no residents receiving any of the services identified above, with the exception of a few residents receiving oxygen therapy.
- The facility has a reputation for being a good care and comfort facility and has not sought higher acuity residents for admission.
- The registered and licensed practical nurses on staff have not utilized the skill sets required for providing this level of nursing care.

### Medicaid Acuity

### Recommendations:

- care to higher acuity residents, that may have a positive impact on the Medicaid reimbursement Should Management attempt to improve the payer mix, opportunity likely exists to provide
- Should Management decide to admit residents with higher acuity care needs, such as those services identified above, Management should consider the following initiatives:
- Identifying the types of services that would be provided at Homestead;
- Performing a competency evaluation for all licensed nursing personnel;
- Training to update skill sets and standards of practice; and
- Development of policies and procedures to be sure that the most current standards of practice are in place and being implemented by licensed nursing personnel.

## Potential Financial Impact:

We are unable to quantify this finding. The current resident population does not drive high acuity. Should this population remain representative of the care needs, the acuity will not increase, and there will be no opportunity to improve the Medicaid per diem rate. This is not a matter of poor documentation capture of care delivered, but rather a true reflection of the current resident population. The opportunity that exists to improve the Medicaid per diem rate is in the actual reported acuity of the resident population. Until such time as Management would determine to actively seek higher acuity residents and invest in evaluation and training of licensed nursing personnel, it is believed that improvements to the Medicaid per diem rate will not occur.

### Shift in Payer Mix

#### Current Reality:

- Medicare days as a percentage of total resident days is below the national average of 12%.
- No criteria have been established to improve payer mix.
- Homestead runs very high occupancy (99.1% recorded on Medicare Cost Report) with a waiting list.

## Key Performance Indicator:

12.00%	2.57%	9.43%
National Average Medicare percent of days	Homestead Medicare percent of total days	Variance

### Shift in Payer Mix

### Recommendations:

- Establish occupancy and payer mix goals.
- The improvement in payer mix should have a secondary goal of maintaining 75% Medicaid utilization in order to continue to receive the \$4.00 per day add on to the Medicaid per diem
- Provide education for those involved in the admission process of the critical need to improve payer mix.
- Establish working relationships with acute care discharge planners/case managers, and physician offices with specialty practices that may make direct referrals for rehab patients or those with other specific skilled nursing needs.
  - Perform competency evaluations for all registered and licensed practical nurses with regard to nursing practice in such areas as intravenous administration, wounds care, tracheostomy care, provision of tube feedings, and other skilled nursing care.
- Provide remedial training in those areas determined to be in need.
- Encourage a holistic approach to discussions during Medicare Part A resident review of continued stay to determine skilled nursing needs including professional observation, assessment and management of the plan of care.
- The RNAC should routinely take opportunity to reassess residents skilled for rehabilitation to determine potential extended stays for additional clinical needs.
  - Encourage therapists to extend treatment services beyond the 21st day of the Medicare stay to include additional community re-entry services and safety, when reasonable and necessary

# Shift in Payer Mix

# Potential Financial Impact:

\$190,400

					Potential Improvement Gross Revenue	\$761,583	75%	190,396
Estimated CURRENT Annual Gross MC Part A Revenue	\$ 373,016	Estimated Annual Gross Revenue	\$1,739,549	\$1,366,533	MC Gross Revenue	\$1,366,533	I MC Revenues	ent
Average Per Diem Payment per Resident	\$389.37	Average Per Diem Payment per Resident	\$389.37	Potential Improvement (MC only Gross)	MC Rate Per Day	\$389.37	Margin on additional MC Revenues	Potential Improvement
Homestead Average MC Resident Days/Year	856	Potential Average MC Resident Days/Year	4,468	Potential Improveme	MA Gross Revenue	604,950		
Homestead Total Days Possible	37,230	Homestead Total Days Possible	37,230		Days Increase	3,510		
Current Estimated MC Part A Percent of Total Days	2.57%	National MC Part A Days as a Percent of Total Days	12.00%		Homestead Current MA Rate Per Day	\$172.37		

Note: Medicaid rate determined from 2005 Medicaid cost report - reported Medicaid revenue and resident days. "MC" is an abbreviation for "Medicare".

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# Shift in Payer Mix

# Potential Financial Impact:

\$190,400

					Potential Improvement Gross Revenue	\$761,583	25%	190,396
Estimated CURRENT Annual Gross MC Part A Revenue	\$ 373,016	Estimated Annual Gross Revenue	\$1,739,549	\$1,366,533	MC Gross Revenue	\$1,366,533	al MC Revenues	ent
Average Per Diem Payment per Resident	\$389.37	Average Per Diem Payment per Resident	\$389.37	Potential Improvement (MC only Gross)	MC Rate Per Day	\$389.37	Margin on additional MC Revenues	Potential Improvement
Homestead Average MC Resident Days/Year	856	Potential Average MC Resident Days/Year	4,468	Potential Improvem	MA Gross Revenue	604,950		
Homestead Total Days Possible	37,230	Homestead Total Days Possible	37,230		Days Increase	3,510		
Current Estimated MC Part A Percent of Total Days	2.57%	National MC Part A Days as a Percent of Total Days	12.00%		Homestead Current MA Rate Per Day	\$172.37		

Note: Medicaid rate determined from 2005 Medicaid cost report - reported Medicaid revenue and resident days. "MC" is an abbreviation for "Medicare".

35

# Shift in Payer Mix

# Potential Financial Impact:

\$190,400

190,396	ent	Potential Improvement			
25%	I MC Revenues	Margin on additional MC Revenues			
\$761,583	\$1,366,533	\$389.37	604,950	3,510	\$172.37
Potential Improvement Gross Revenue	MC Gross Revenue	MC Rate Per Day	MA Gross Revenue	Days Increase	Homestead Current MA Rate Per Day
	\$1,366,533	Potential Improvement (MC only Gross)	Potential Improvemen		
	\$1,739,549	\$389.37	4,468	37,230	12.00%
	Estimated Annual Gross Revenue	Average Per Diem Payment per Resident	Potential Average MC Resident Days/Year	Homestead Total Days Possible	National MC Part A Days as a Percent of Total Days
	\$ 373,016	\$389.37	958	37,230	2.57%
	Estimated CURRENT Annual Gross MC Part A Revenue	Average Per Diem Payment per Resident	Average MC Resident Days/Year	Homestead Total Days Possible	Current Estimated MC Part A Percent of Total Days

Note: Medicaid rate determined from 2005 Medicaid cost report - reported Medicaid revenue and resident days. "MC" is an abbreviation for "Medicare".

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# Shift in Payer Mix

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\$190,400

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					Potential Improvement Gross Revenue	\$761,583	25%	190,396
Estimated CURRENT Annual Gross MC Part A Revenue	\$ 373,016	Estimated Annual Gross Revenue	\$1,739,549	\$1,366,533	MC Gross Revenue	\$1,366,533	Il MC Revenues	ont.
Average Per Diem Payment per Resident	\$389.37	Average Per Diem Payment per Resident	\$389.37	ent (MC only Gross)	MC Rate Per Day	\$389.37	Margin on additional MC Revenues	Potential Improvement
Homestead Average MC Resident Days/Year	856	Potential Average MC Resident Days/Year	4,468	Potential Improvement (MC only Gross)	MA Gross Revenue	604,950		:
Homestead Total Days Possible	37,230	Homestead Total Days Possible	37,230	·	Days Increase	3,510		•
Current Estimated MC Part A Percent of Total Days	2.57%	National MC Part A Days as a Percent of Total Days	12.00%		Homestead Current MA Rate Per Day	\$172.37		MI 44

Note: Medicaid rate determined from 2005 Medicaid cost report - reported Medicaid revenue and resident days. "MC" is an abbreviation for "Medicare".

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### Therapy Services

#### Current Reality:

- Therapy services are provided under contract with Endura Care.
- Current staffing is as follows:
- 1 FTE (shared with another skilled facility)
- I FTE (shared with another skilled facility)
- Occupational Therapists

Physical Therapist Speech Therapist

- I FTE (shared with another skilled facility)
- The Rehab Manager believes that the facility is prepared for short term rehab residents. There are currently no regularly scheduled Physical Therapy Assistants or Aides.
- Currently the rehab department does not participate in the pre-admission assessment process.
- Often there is no follow through by the nurses to make contact with the physician to order CNA's often discuss resident needs with them and the potential need for therapy referral the referral and evaluation.
- Part A fees are based on RUG groupings.
- Part B is at 85% of fee screen.
- The Restorative Nursing Program is just now getting under way, having been initiated by the therapy provider.
- Concern was expressed with regard to the continuing ability of the contracted agency to staff and provide services, given the limited number of residents referred to and receiving therapy

#### 37

## Therapy Services

# Key Performance Indicator:

Please see comments under Medicare Part B.

#### Recommendations:

- Should the facility determine to make a concerted effort to shift payer mix from Medicaid to Medicare (see comments in the payer mix section of the report), the therapy manager and other team members would be important members of the team to initiate marketing efforts.
  - indicator report to the Therapy Manager on a monthly basis to identify those residents who have experienced a decline in Activities of Daily Living ("ADL") function, Range of Motion The Director of Nursing and RN Assessment Coordinator should provide a copy of the quality ("ROM"), ability to toilet, etc.
- Therapy screens should be performed on a quarterly basis in conjunction with the MDS assessment schedule, occurring approximately three to four weeks prior to the scheduled Assessment Reference Date ("ARD").

# Potential Financial Impact:

Please see comments under Medicare Part B.

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### Medicare Part B

#### Current Reality:

- Nursing team members are unaware of the clinical and financial rationale for referral to therapy for Part B therapy treatment services.
- Restorative Nursing Program ("RNP") has not been developed to the extent that referrals are made for Part B therapy treatment when they note decline in resident status.
- Policies and procedures have not been reviewed to determine if they include referral to therapy for situations such as a second fall.
- Resident screens are performed on an appropriate schedule but should be conducted three to four weeks prior to the established ARD
- Restorative nursing and therapy services do not regularly seek opportunities to treat in tandem.

# **Key Performance Indicators:**

### Medicare Part B

### Recommendations:

- Improved communication and cross-referring between restorative nursing and therapy may result in improved treatment plans, which may result in increased Medicare Part B revenue.
- Educate nursing team members regarding rationale for referral of residents to therapy.
- Develop RNP Program to promote referrals to therapy treatment services required to improve functional levels to highest practicable levels.
- Review policies and procedures to ensure that they include therapy treatment referrals in specific situations that meet the reasonable and necessary criteria for Medicare, and improve resident function.

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## Medicare Part B

# Potential Financial Impact:

\$27,000

		Additional Gross Part B Revenue \$179,712	
	·	Part B "Per Diem" \$80	Potential Additional Net Revenue \$26,957
	Potential # New Part B residents 4.80	Part B Days 2,246	% Fee Screen 15%
	Proposed utilization 9.8	# of Weeks	Gross Revenue \$179,712
102 4	Current Homestead MC Part B Utilization 5	Times / Week	
HMO census	Benchmark Utilization % 10%	# Services	
Total Beds Average MC A and HMO census	Total beds less Avg MC / HMO Census 98	# Residents 4.80	

Note: "MC" is an abbreviation for "Medicare".

# Housekeeping Services

#### Current Reality:

The housekeeping department falls under the supervision of the Building Superintendent.

• The department is staffed by 7 FTEs.

Review of the actual work schedule reveals weekends with 3 housekeepers on duty and other days during the week with 6 to 7 housekeepers on duty.

The staffing plan calls for 2 housekeepers on each floor and 1 to float throughout the facility.

There are no detailed area schedules indicating specific responsibilities for common and utility

There are no detailed schedules indicating a plan for light cleaning versus deep cleaning or terminal cleaning.

# Key Performance Indicator:

Housekeeper ratio of 1:40	2.55 FTEs
Janitorial ratio of 1:50	2.06 FTEs
KPI (based on 101 residents)	4.61 FTEs
Homestead	7.00 FTEs
Variance	2.39 FTEs

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# Housekeeping Services

### Recommendations:

- Re-align the work schedule to even out the staffing over the seven day period.
- Monday through Friday, the house should be staffed with a minimum of 5 and maximum of 6 housekeepers.
- Assign 2 housekeepers to each of the resident care floors, 1 housekeeper to the first floor to manage the common areas and offices and 1 housekeeper to float and assist with the common
- Offices should be placed on a once week cleaning schedule with daily trash pick up.
- Develop specific area assignments and level of cleaning schedules for all housekeepers.
- Due to the every other weekend off requirement in the union contract, schedule weekends to maintain 2 housekeepers on each of the resident care units, and 1 float who would be responsible for all common areas and emergency needs.
- O Because of the every other weekend off requirement and the current configuration of full time vs. part time positions, this staffing pattern may be difficult to achieve.
- Consider implementation of a special projects team for such things as seasonal window cleaning, scheduled terminal room cleanings that would be coordinated with maintenance, etc.
  - Consider outsourcing the total package of environmental services inclusive of housekeeping, laundry, and maintenance.

# Housekeeping Services

# Potential Financial Impact

\$45,900

		Recommended			
Housekeeping	Current FTEs	FTE	FTE Variance	Rate	Salary Variance
Housekeepers	00'.	00.9	(1.00)	\$15.35	(\$31,928)

(\$13,988)	(\$45,916)
<b>Benefits at 43.81%</b>	Potential Cost Reductions

# Laundry Services

#### Current Reality:

- The laundry department falls under the supervision of the Facilities Maintenance Supervisor.
- The laundry is housed in a separate building on the campus.
- In-house, the laundry processes bibs, dining room linens, mops, and personal clothing.
- The department is currently staffed with 2 FTEs, with the schedule showing 2 staff on duty for about half of the scheduled days.
- Laundry services for all other flat linens such as underpads, sheets, pillow cases, and towels, as well as resident gowns are outsourced.

# Key Performance Indicator:

Laundry Cost Per Resident Day ("PRD") Non-profit and county facilities of 80 to 110 beds with full service laundry	\$3.21
Laundry Cost PRD - Homestead Total cost of Salaries, supplies, and outsourcing	\$3.72
Variance	\$ 51

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# Laundry Services

### Recommendations:

• Review existing contract and competitively bid.

Eliminate .5 FTE laundry worker in order to schedule one worker on duty seven days a week.

Consider outsourcing the remaining personal laundry service.

Consider outsourcing the total package of environmental services inclusive of housekeeping, laundry, and maintenance.

# Potential Financial Impact

\$21,900

		Recommended			Salary
Laundry	Current FTEs	FTES	FTE Variance	Rate	Variance
Laundry Worker	2.00	1.50	(0.50)	\$14.62	(\$15,205)

Benefits at 43.81% (\$ 6,661)
Potential Cost Reductions (\$21,866)

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# Maintenance Department

#### Current Reality:

• Homestead's maintenance department is currently staffed as follows:

	Days	Evenings	Nights
Suilding Superintendent	1.0 FTE		
Aaintenance Repairer	1.0 FTE	1.0 FTE	
aborers	2.0 FTEs	перилични	
Maintenance Workers		1.0 FTE	2.0 FTEs
ubtotal	4.0 FTEs	2.0 FTEs	2.0 FTEs
Otal FTFe			8 O FTFs

- Emergency call-ins are handled by the Building Superintendent.
- grass mowing, stairwell cleaning, and minor repairs are generally handled by on-site General day to day tasks such as painting and paper repair, trash removal, transport of laundry, maintenance personnel.
- For significant repair or equipment replacement issues, on-site personnel must coordinate service delivery through the appropriate personnel at Sussex County's facilities department.
  - Staff reported that response time from the County is often slow.

# Maintenance Department

A comment

# Current Reality (Cont'd):

- Consideration is being given to consolidating all county maintenance operations into the county's central maintenance operation in order to more effectively and efficiently assign personnel according to building needs and personnel skill sets.
  - Significant areas of concern in regards to the maintenance department include the following:
    - Majority of staff are not highly skilled laborers;
- On-site maintenance personnel are not certified to access pipes and vents above the ceiling tile, requiring support from Sussex County's facilities staff, often causing delays in attention to these issues; and 0
  - Homestead's facilities show signs of having lacked a thorough, comprehensive preventative maintenance plan. 0

# Key Performance Indicators:

		White programme is a second of the second of	Expenses /	Key Pe	Key Performance		
Category	<b>  </b>	Expenses	Resident Day	Ind	Indicator		Variance
Salary costs	\$	266,760	\$ 7.26	↔	3.00	89	(4.26)
Benefits		113,343	3.08		09.0		(2.48)
Non-salary	:	134,942	3.67		3.00		(0.67)
Total	\$	\$15,045 \$	\$ 14.01 \$	↔	\$ 09.9	\$	(7.41)

Note: Non-salary costs exclude utilities expenses, capital, and insurance.

# Maintenance Department

#### Recommendations:

- Develop preventative maintenance plan for the facility.
- Reduce maintenance staff by 3.0 FTEs.
- Address technical competencies of maintenance personnel.
- Determine means for improving coordination of services between Homestead's maintenance department and Sussex County's facilities department.
- Consider outsourcing the total package of environmental services inclusive of housekeeping, laundry, and maintenance.
- for maintenance services at Homestead, versus having a third-party provide such services to Consider cost/benefit of having Sussex County's facilities department assume responsibility

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# Maintenance Department

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# Potential Financial Impact

\$141,800

Maintenance	Current FTEs	Recommended FTEs	Variance FTEs		Rate	> 02	Variance Salaries
Building Superintendent	1.00	1.00	*	↔	ı	8	1
Maintenance Repairer	2.00	2.00	ı	↔	1	8	1
Laborer (1 low pressure)	2.00	1.00	(1.00)	↔	16.72	↔	16.72 \$ (34,784)
Building Maint. Worker low pressure	3.00	1.00	(2.00)	↔	15.35	6-5	15.35 \& (63,856)
	8.00	5.00	(3.00)			S	(98,640)

 Benefits at 43.81%
 \$ (43,214)

 Potential Cost Savings
 \$ (141,854)

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#### Current Reality:

- The department is under the direction of a full time Registered Dietitian ("RD").
- The department provides meals for meals on wheels and charges the program.
- The department provides meals for the detention center at \$1.75 per meal.
- Meals served are often double and/or triple portions, billed at the \$1.75 per meal rate.
- Employees are offered free meals as a benefit.
- Menus cycle Spring, Summer and Fall/Winter.
- The facility offers 4 basic diets, regular, no added sweets, no added salt, and no added sweets or salt.
- The main food purveyor is US Foods.
- The facility uses the HGP Purchasing Group.
- The current staffing plan calls for the following full time equivalents:

	1.00	1.00	3.00	11.23	16.23
f +	Dietary Manager / RD	Head Cook	Cook	Food Service Worker	o Total
	0	0	0	0	0

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# Key Performance Indicator:

\$20.29	24.78	\$ 4.49
Dietary Cost PRD Non-profit and county facilities of 80 to 110 beds	Dietary Cost PRD - Homestead Total cost of Salaries, supplies, and food	Variance

### Recommendations:

- single serving with additional charge for double or triple portions in order to, at a minimum, Evaluate arrangements with the detention center to establish the per meal price based on a cover the cost.
- Consider implementing a meal charge for employee meals.
- Perform a detailed analysis of dietary department purchasing practices to determine whether there might be opportunity for expense reduction through:
  - O Consolidating orders with the same vendor as the housekeeping department for such things as plastic gloves, chemical items (dishwashing), etc.

# Potential Financial Impact - Dietary Wages and Benefits

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01

Dietary Positions	Current FTE	Proposed FTE	Variance FTEs	Rate	Variance Salaries
Dietary Manager / RD	1.00	1.00	ŧ.	ł	
Cook	3.00	3.00	. t	•	<b>1</b>
Head Cook	1.00	1.00	t.		and a
Dietary Workers	11.23	8,42	(2.81)	\$ 12.77	(2.81)
	16.23	13.42	(2.81)		\$ (74,638)

\$ (32,699)	\$ (107,337)
Benefits at 43.81%	Potential Cost Savings

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#### Potential Financial Impact Non-Salary Related Dietary Expenses

\$29,000

Potential Impact	\$29,039
Variance / Day	\$0.78
Benchmark Dietary Expense PRD	\$20.29
Homestead Potential Resident Days	37,230
Homestead Dietary Expense PRD AFTER Wage reductions	\$21.07

# Free Meal Benefit to Employees

\$38,800

Avg.# employees on	Estimated % of Employees Receiving Free Meal per	Avg. # Employees Receiving Free	Days per	Estimated Cost of Food	Cost of Employee Meal Benefit
Day	Day	Meal per Day	Year	per Meal	(food only)
001	%99	99	365	\$1.61	\$38,785

#### Activities

#### Current Reality:

- The department is operated under the direction of an Activities Coordinator.
- At the time of our interview, the Activities Coordinator had been in the position for approximately 3 weeks, having come from a similar position in a smaller facility of about 40
- The department is currently staffed as follows:

m	Activity Coordinator	1.0	FT
**	Activity Assistants	5.5	H
		6.5	FT

FTE	FTES
1.0	5.5

FTEs
2
6

- Currently, activity programming is offered throughout the day, every evening and on weekends from 8:00 AM to 5:30 PM.
- Evening programs are not always well attended.
- The majority of current programming is social, large group activities.
- There is a need for improved programming for small group and lower functioning residents.
  - Currently staff are not assigned to a particular unit or wing, programming is house wide.
    - Activity Assistants are not guaranteed every other weekend off.
- Planned staffing is to have 2 to 3 staff per day Monday through Friday and 2 staff on weekends and holidays.
- Outings are provided approximately two times per month with transportation provided by the local transit authority

#### Activities

# Current Reality (Cont'd):

- Generally 10 to 12 residents at a time participate in the outings.
- Volunteers are coordinated with activity programming and provide support.
- New forms have been developed and implemented to capture attendance and participation information in keeping with regulatory guidelines.
- Pastoral care is available to the residents and is provided through the Volunteer Coordinator, this is a volunteer program.
- Resident volunteers are being integrated into programming.

# Key Performance Indicator:

Activity Cost PRD Non-profit and county facilities of 80 to 110 beds Activity Cost PRD - Homestead

#### 56

#### Activities

### Recommendations:

- In order to maintain adequate programming and bring the staffing levels more in line with industry indicators, it is recommended that the assistant positions are reduced by 2 FTEs.
- One staff member could be scheduled mid-morning through early evening to accommodate afternoon and evening programming during productive hours.
- Seek additional assistance from the Volunteer Coordinator for specific assistance with transport and observation during activities programs.
- should routinely consider volunteer opportunities for appropriate residents during care The value of resident volunteers should not be underestimated. The interdisciplinary care team planning conferences that will add to the quality of life.

# Potential Financial Impact

\$83,400

Recreation	Current FTEs	Recommended FTEs	Variance FTEs	Rate	Variance Salaries
Recreation Director	1.00	1.00	-	·	
Recreation Assistant	<u>5.50</u>	3.50	(2.00)	13.94	(57,990)
	6.50	4.50	(2.00)		(\$57.990)

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#### Social Services

#### Current Reality:

- The department currently consists of one full time Social Worker.
- At one time the department also had a clerk, who assisted with the admissions process.

#### Admissions

- The Social Worker handles all intake for referrals, walk in tours, and general pre-admission and admission functions.
- Other members of the administrative team will provide tours.
- The admission process is slow with regard to decision-making relative to acceptance of resident for admission.
  - o Typically the phone call for referral comes in to the Social Worker.
- o Medical information provided by the referring agency is provided to the Director of Nursing for review.
  - A nurse may make a visit to the hospital or home to evaluate the prospective resident.
- This process may take up to two days to complete.
- The prospective resident must complete an admission application.
- It is believed that there is opportunity to improve the number of Medicare Part A admissions if the admission process could be streamlined and more responsive to the referral sources needs to place quickly.
- Newton Memorial is the primary referring acute care facility.

#### Social Services

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# Current Reality (Cont'd):

- The facility maintains high occupancy, with sustained levels of about 99%.
- The facility maintains a waiting list on a first come basis without regard to payer status.

#### Social Services

- The Social Worker has responsibility for the provision of social services for all residents.
- services department in order to afford opportunity for quicker intervention with behavioral It is believed that communication could be improved from the nursing department to the social
- A psychiatrist and a psychologist are available to the facility on an as needed, fee for service basis; no regular visitation schedule is maintained.

### Recommendations:

- The department is appropriately staffed for the number of residents, given the stable nature of the population.
- Should the facility determine to make a concerted effort to achieve improvements in payer mix, with a shift to Medicare Part A, the admission process will need to be refined in order to respond to acute care referral sources in hours, not days.

#### Social Services

# Recommendations (Cont'd):

- This would also require:
- Cross-training of the administrative secretary to provide support to the inquiry and intake process; and
- required to make quick decisions as to the ability of the facility to meet the care needs Development of medical and financial intake forms that would contain information and determine financial status. 0

# Potential Financial Impact:

None for the department specifically, see comments under Medicare Part A, Payer Mix Shift.

# Summary of Findings with Potential Annual Financial Impact

Reduction in FTEs - Nursing Administration
Reduction in FTEs - Nursing General
Improved Medicare RUG Categories
Increased Medicare Length of Stay
Improvement in Payer Mix
Improved Medicare Part B Utilization
Reduction in Housekeeping FTEs
Reduction in Laundry FTEs
Reduction in Maintenance FTEs
Reduction in Dietary FTEs
Reduction in Non-Salary Dietary Expense
Eliminate Free Employee Meals
Reduction in Activity FTEs

45,900 569,800 13,300 85,900 190,400 27,000 45,900 21,900

316,600 23%	\$ 1,083,800	1,400,400
↔	8	69
Revenue Improvements	Expense Reductions	4

1,400,400

29,000 38,800 83,400

141,800 107,300 The second secon

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#### Sussex County Homestead

#### Market Assessment Senior Living Services

August 30, 2006

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#### **Table of Contents**

Executive Summary	
Background of the Engagement	1
Executive Summary Overview	2
Strategic Recommendations and Next Steps	6
Current Market Reality, Findings and Observations	
Primary Market Areas	9
Demographic Trends	10
Economic Indicators	11
Key Influencer Interviews	12
Competitor Profile	15
Planned Developments	17
Appendix	
Demographic Analysis (Tables 1-4)	
Penetration Analysis (Tables 5-6) Nursing Home Bed Need Analysis (Table 7)	
Unemployment Rate (Table 8)	

Major Employers (Table 9)

Real Estate Trends (Table 11) Competitor Table/Grid Competitor Photo Gallery

Major Industry Classification (Table 10)

**Executive Summary** 

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#### **Background of the Engagement**

The Sussex County Homestead ("Homestead") nursing facility has provided nursing care to Sussex County seniors since its opening in 1955. Today, Homestead consists of 102 licensed nursing beds. The Homestead is owned by Sussex County and is administered by the Sussex County Health and Human Services department.

The Sussex County Board of Chosen Freeholders ("Board") strives to continuously serve the needs of Sussex County residents. In order to position Homestead to adequately serve future seniors in the county and to operate as efficiently as possible, Management has engaged Parente Randolph, LLC ("Parente") to conduct several assessments on behalf of the Board.

Specifically, Parente is conducting an operations assessment to identify revenue enhancement opportunities or cost containment measures, a physical plant assessment to identify and classify outstanding facility needs as well as strategic and financial tools related to the physical plant and infrastructure, and a market assessment to determine the overall need for senior healthcare related services in Sussex County.

This study pertains only to the market assessment portion of the engagement and focuses on the need for nursing, assisted living and/or affordable independent living services within Sussex County.

Parente executed a work-plan that included in-market research, interviews and analyses specifically designed to address Management's questions, including:

- Determination of the primary market areas for independent living and healthcare services (assisted living and nursing care);
- On-site tours of competitive product within the defined primary market areas;
- Analysis of demographic trends, real estate data, employer profiles, industry classifications and unemployment trends;
- Interview with county economic development personnel;
- Interviews with local planning and zoning representatives;
- Interviews with hospital discharge planners and the Sussex County Public Health Nursing department;
- Analysis of nursing home bed need; and
- Analyses of penetration levels for independent living and assisted living services.

The following report contains two sections: 1) Executive Summary that summarizes our findings and recommendations and 2) Current Market Reality, Findings and Observations, which profiles the findings, data and relevant analyses used to support the Executive Summary.

#### **Executive Summary Overview**

An independent living primary market area ("IL PMA") has been defined as the geographic study area for independent living services for this report. An assisted living and skilled nursing primary market area ("AL/SN PMA") has been defined as the geographic study area for assisted living and nursing services for this report.

The resident origin of current Homestead nursing residents was utilized in determining the AL/SN PMA. The AL/SN PMA is a polygon-shaped area that is 15 miles from north to south and 15 miles from west to east in size. The AL/SN PMA captures 72 percent of Homestead's current residents. It is also assumed that this same PMA represents the potential draw area for assisted living services. This assumption is based on industry trends and Parente's prior experience that seniors or the adult children of seniors typically seek out assisted living services in relatively close proximity to their home. The IL PMA has been defined as Sussex County, which is approximately 32 miles from north to south and 28 miles from west to east.

See page nine of the Current Market Reality, Findings and Observations section of this report for a map of the IL and AL/SN PMAs.

#### Nursing Services

In the AL/SN PMA there are four competitors, three of which are stand-alone nursing providers (Barn Hill Care Center, Valley View Care Center and Andover Subacute and Rehabilitation Center), and one (Bristol Glen) that is part of a CCRC. While Bristol Glen is part of a CCRC, the majority of nursing residents are direct admissions from the Sussex County community. The three stand-alone facilities are privately owned for profit organizations. Homestead's rates are the lowest compared to the other competitors with a daily fee of \$232 for a semi-private room compared the highest fee among the competitors of \$335 at Bristol Glen.

Both Homestead and Andover have the largest Medicaid populations among their residents, however, Homestead has by far, the smallest Medicare population among all of the nursing facilities within the AL/SN PMA, currently approximating five percent of the payor mix.

The census at the area nursing facilities may be impacted in the near future by a new state program called Global Options for Long-Term Care ("GO"). GO will take the place of existing programs including CAP and JACC. GO will focus on providing home-and-community-based services to those who are nursing home eligible. Prior programs worked to keep residents who were living in the community from moving into a nursing home. GO will continue to work with those still living in the community, however, it will also work with current nursing home residents who prefer to return to their home and receive home-and-community-based services rather than living in a nursing facility.

The two main referral sources for all of the competitors are Newton Memorial Hospital and St. Clare's Hospital. Interviews with the social work and case management departments revealed that there is an unmet need in the area for specialized subacute

services including IV therapy, wound care, whirlpool therapy, physical therapy, tube feedings and isolation rooms. Barn Hill, Valley View and Andover all have existing subacute and/or rehabilitation units. Barn Hill is currently constructing a subacute unit and Bristol Glen, which currently has its subacute residents integrated with the long-term care residents, is planning to make a separate subacute unit at some point in the future. While all of Homestead's competitors have or are planning to have a designated subacute/rehabilitation unit, Homestead continues to focus more on the long-term care resident.

Based on interviews with the admissions staff at the competitive nursing facilities, Homestead is perceived as "the county home" or "the Medicaid nursing home". Also mentioned was that Homestead "provides great care" and "always has a wait list" and that other facilities have lost employees to Homestead because of Homestead's employee benefits (county benefits).

Based on the nursing home bed need calculation there is a surplus of nursing beds within the AL/SN PMA of between 550 to 637 beds. Occupancy of competitive facilities range from 94 percent to 100 percent. Based on demographic based calculations and the state's emphasis on home and community based services as an alternative to nursing homes, there is no demand for additional nursing beds in this market at this time. Interviews indicated difficulty with placement of subacute patients to local area nursing homes, indicating that more subacute specialty beds are in demand more so than traditional long-term care beds.

#### Assisted Living Services

Assisted living facilities in New Jersey are classified as assisted living residences, comprehensive personal care homes, residential health care facilities and Class C Boarding Homes. There is one assisted living residence, Bristol Glen, and three Class C Boarding Homes located within the AL/SN PMA: Merrian House, The Pines Inn and Westwind Hall. Class C Boarding Homes only accept ambulatory residents and do not provide assistance with activities of daily living; therefore, for the purposes of this study, these facilities have not been profiled.

Bristol Glen has 58 assisted living beds and is planning to begin construction on 20 assisted living units and 16 dementia assisted living units in Spring 2007. Bristol Glen offers seven levels of care to assisted living residents depending on their degree of assistance required. Fees under the base "residential" level range from \$3,656 to \$4,458 depending on the unit type selected. The residential level does not provide ADL assistance. Fees under the highest need level range from \$7,428 to \$8,230 depending on the unit type. Depending on the level of care needs, residents pay an admission fee of \$5,000 or \$12,000 for a single occupant.

There is a new assisted living facility, EverMay Manor, currently under construction, that is planning to open in September 2006. EverMay Manor is located at the site of the former assisted living facility in Branchville, Methodist Manor House, and will consist of 51 assisted living units. Monthly fees at the planned EverMay Manor are slated to range from \$3,600 up to \$3,900.

Based on interviews with existing competitors and other research conducted there appears to be a need for assisted living for those with a low to middle income in the marketplace. Currently, an assisted living age-and-income qualified senior (ages 75+, income \$25,000-\$49,999 and homeowners \$15,000-\$24,999) would not have enough income to reside at the existing and planned assisted living providers.

Project penetration calculations for the AL/SN PMA show demographic support for a 20-bed affordable assisted living product, targeting those with an annual income between \$25,000 and \$49,999 or homeowners with an annual income between \$15,000 and \$24,999; however, consideration should be given to other critical success factors such as product positioning, site, location, physical plant layout, accessibility and overall marketability of these services.

# Affordable Independent Living

There is only one existing independent living provider in the IL PMA, Bristol Glen. There are no planned independent living facilities in the IL PMA, however, there are several active adult communities in various stages of development. An active adult community is defined as a housing community for those ages 55 and older. Typically, residents of an active adult purchase a home rather than paying an entrance fee and, in addition, pay a monthly homeowners' association fee. The homeowners' association fee includes limited services such as exterior maintenance. No health care services, such as assisted living or nursing care, are provided.

Bristol Glen is a CCRC sponsored by the United Methodist Homes of New Jersey and consists of 88 independent living apartments. Bristol Glen offers two refund plan options, a 90 percent refundable and a non-refundable plan. Entrance fees under the 90 percent refundable option range from \$200,000 to \$320,000 and \$127,000 to \$227,000 under the non-refundable plan. Residents also pay a monthly service fee that ranges in price from \$2,100 up to \$3,400 depending on the unit type selected. The monthly fee provides numerous services including one meal per day, weekly housekeeping and linen service and scheduled transportation. Amenities include a fitness room, a gift shop, a computer lab, a library and a workshop. Bristol Glen is 96 percent occupied.

Since there are no other independent living facilities within the IL PMA, Bristol Glen considers its main competitors to be facilities located in nearby counties. About half of Bristol Glen's independent living residents resided outside of Sussex County prior to moving to Bristol Glen. Most have a family or other connection to Sussex County.

While there is some low income subsidized housing in the county and one higher-end independent living facility (Bristol Glen), there are no existing affordable independent living facilities within Sussex County.

Project penetration calculations for affordable independent living within the IL PMA show demographic support for up to 60 units, if targeting those with an annual income between \$15,000 and \$24,999; however, consideration should be given to other critical success factors such as product positioning, site, location, physical plant layout, accessibility and overall marketability of these services.

## Strategic Recommendations and Next Steps

The following recommendations are based on the culmination of our in-market research, interviews and analyses.

## Nursing Services

Consideration should be given to financial implications of contracting with Horizon Blue Cross in order to alleviate patient backlog at local hospitals. Horizon Blue Cross is the largest payor source for Newton Hospital, yet there are no/minimal contracted nursing home beds in Sussex County (according to results of interviews).

Homestead is the only nursing facility within the AL/SN PMA that does not have or is not planning to offer a separate subacute/rehabilitation unit or access to subacute beds. Subacute rehabilitation services would potentially increase revenue to Homestead. Consider the potential to meet the need for specialized subacute services such as IV therapy, wound care, whirlpool and physical therapy and an isolation room. Consideration should be given to this line of service as it is reportedly the most frequent discharge need disclosed by hospital representatives.

With the potential impact of the GO program and the surplus of existing nursing beds in the county based on the nursing home bed need calculations it is not recommended that the Board consider adding new nursing beds at Homestead.

## Assisted Living Services

Currently there are no existing assisted living facilities that serve the lower or moderate income senior. County residents requiring assisted living services have few options available to them and may end up moving into a nursing facility to receive assisted living services or utilize services outside of Sussex County.

Based on demand calculations, there is a potential for the AL/SN PMA to support an assisted living project of up to 20 beds. This is assuming householders ages 75-plus with an annual income between \$25,000 and \$49,999 and homeowners ages 75-plus with an annual income between \$15,000 and \$24,999.

A profile of pros and cons to consider regarding development of an affordable assisted living project is as follows:

#### Pros:

- County is providing a needed service to residents of the County.
- Ability to leverage certain costs from the existing operations of the Homestead to this new product line.
- Feeder source for nursing beds.
- Expansion of County/Board's product and service offering.
- Opportunity to utilize available space in the current facility.

#### Cons:

- May be prohibitively expensive to perform necessary renovations and upgrades to existing physical plant to add an assisted living unit to the 4<sup>th</sup> floor at the Homestead facility.
- May be difficult to market the assisted living product and overcome the reputation that Homestead is the "county nursing home". There may be other product positioning and marketing challenges associated with locating an assisted living product in the current facility.
- No public funding source is available to help pay the cost of residents who exhaust their financial resources while residing in assisted living (Medicaid does not currently provide reimbursement to assisted living providers).
- Based on the county wage structure, staffing costs would be higher compared to other facilities in the AL/SN PMA.
- Ability to implement and effectively operate an assisted living product with no past assisted living operational experience.
- Can be challenging operationally to achieve appropriate economics of scale when operating a relatively small AL unit.

Based on the financial, operational, and marketing challenges with a smaller, 20 bed affordable assisted living project located at the Homestead, we do not recommend that the Board pursue this as an opportunity at this time.

## Affordable Independent Living

Currently there is no affordable senior independent living housing in Sussex County. Based on a demand calculations there is a potential for up to 60 affordable independent living units within Sussex County (the IL PMA). This is assuming that age-and-income eligible seniors for affordable independent living are those ages 65-plus with an annual income between \$15,000 and \$24,999.

The success of an affordable independent living project would be dependent on numerous factors including the Board's ability to effectively market and attract age-and-income eligible seniors to the project. Also Homestead is currently known as the "county nursing home". A marketing plan would likely need to be in place that would differentiate the affordable independent living from the nursing home.

The Board should consider further evaluation of the potential to develop an affordable independent living housing project either near the Homestead or in another suitable location within the country.

#### Next Steps:

# Affordable Housing

- 1. Determine if a potential affordable independent living project would be built on existing campus or elsewhere in the county and consider pros/cons of either scenario.
- 2. Determine land use of Homestead campus to determine how much land would be usable for possible development of affordable independent living, if Homestead campus is most desirable outcome.
- 3. Conduct financial analysis to determine the financial viability of developing affordable independent living. Conduct various financial scenarios to determine fee structures, and the appropriate number of units by type, design, staffing models, etc.

#### Nursing Home

- 1. Determine financial implications and potential of insurance contract with Horizon Blue Cross for the Homestead. Work with Case Management at local hospitals and insurance company to structure appropriate details.
- 2. Evaluate potential to offer subacute services at Homestead in conjunction with specific discharge needs of local hospitals.
- 3. Determine clinical and financial impact to subacute offering.

**Current Market Reality, Findings and Observations** 

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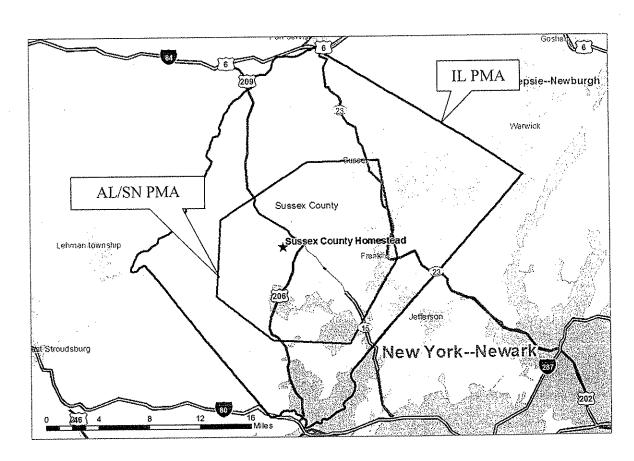
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#### Primary Market Areas

The independent living primary market area (the "IL PMA") has been defined as Sussex County and the primary market area for assisted living and nursing services ("AL/SN PMA") has been defined as a seven-point polygon surrounding Homestead. An analysis of Homestead's resident origin was conducted to determine the AL/SN PMA. The AL/SN PMA contains 72 percent of Homestead's current residents and is approximately 15 miles from north to south and also 15 miles from west to east.

Based on industry trends and Parente's prior experience it is assumed that residents seeking assisted living services would draw from the same geography as nursing residents while prospective independent living residents would likely move from furth distances. The IL PMA (Sussex County) is approximately 32 miles from north to south and 28 miles from west to east.

The IL PMA forms the basis of the study area for this Market Assessment for independent living services and the AL/SN PMA forms the basis of the study area for assisted living and nursing services.



# <u>Demographic Trends</u>

Demographics of an area are one indication of the demand for services in a market place. Overall, the demographics of the IL and AL/SN PMAs are projected to increase between 2005 and 2010, with a total population of 151,908 in 2005 and a projected population of 158,723 in 2010 for the IL PMA and a total population of 64,331 in 2005 and a projected population of 67,056 in 2010 for the AL/SN PMA (0.9 percent average annual compounded percentage change for the IL PMA and 0.8 percent for the AL/SN PMA).

The demographic trends of older seniors (85+), seniors (75-84), young seniors (65-74) and adult children (45-64) age groups were analyzed for the IL and AL/SN PMAs. The following is a summary of these analyses.

- Overall, between 2005 and 2010, the greatest change in population is among the 65 to 74 age group (projected 4.6 percent increase for the IL PMA and 4.0 percent for the AL/SN PMA);
- The next greatest population increase in the IL PMA is the 85+ age group, which is projected to increase 2.4 percent between 2005 and 2010. In the AL/SN PMA the next greatest population increase is the 45 to 64 age group, which is projected to increase 2.2 percent;
- The 75 to 84 age group is projected to experience an increase in population of 0.1 percent in the IL PMA and is projected to decline 0.3 percent in the AL/SN PMA;
- An increase or decrease within the population age groups between the estimated and projected years can be a result of numerous factors, including morbidity, in and out migration within the PMAs and the population aging into the next age group between the estimated and projected years;
- Age-and-income-qualified seniors in the IL PMA for affordable independent living are those ages 65+ with an annual income between \$15,000 and \$24,999. Approximately 15 percent of the householders 65+ within the IL PMA are projected to have annual income between \$15,000 and \$24,999 in 2010; and
- Age-and-income-qualified seniors in the AL/SN PMA for assisted living services are those ages 75+ with income between \$25,000 and \$49,999 and homeowners with income between \$15,000 and \$24,999. Approximately 39 percent of the householders 75+ within the AL/SN PMA are projected to have annual income of between \$25,000 and \$49,999 (and homeowners with an income between \$15,000 and \$24,999) in 2010.

See Tables 1 through 4 in the Appendix.

#### Economic Indicators

The following data and economic indicators were gathered from an interview with the Sussex County Planning Director, the Sussex County web site, National Association of Realtors web site, the Bureau of Labor Statistics web site and the U.S. Census Bureau web site.

Sussex County is a rural, picturesque county made up of open fields, rolling hills, lakes and valleys. According to the Sussex County Strategic Growth Plan ("SGP") one third of the county consists of state parks, forests and recreation areas and 40 percent of the named lakes in the state are located within the county.

The SGP's vision for future growth includes "walkable mixed use centers, support for agriculture and the agriculture industry, provision of opportunities for housing for all segments of the County population." The county has identified 11 designated growth areas and future development will be emphasized in these areas, referred to as "Centers" in the SGP. The Newton area is one of the 11 Centers.

The county plans to develop a higher density of residential housing within the Centers that would then allow for commercial development that could be accessed by foot rather than motor transportation.

According to the Sussex County Planning Director, one way the county is targeting growth in the Centers is through a Transfer of Development Rights program, which allows landowners outside the Centers to sell their "development rights" to those inside the Centers. This allows for greater density of growth within the Centers while preserving land located outside of the Centers.

According to the Sussex County Planning Directory, the municipalities located in the middle of the county are the main growth areas of the county. This includes Andover, Wantage and Frankford. Newton not expected to experience major growth as the town is nearly built out. The eastern portion of the county is already largely built out and the western section of the county is mostly made up of parks.

Commercial growth is more limited than residential growth due to sewer availability and is focused more on tourist-oriented businesses such as golf courses and resorts.

The need for affordable housing for both seniors and the general population was emphasized in the SGP. The lack of affordable housing has led some people who work in Sussex County to move to Pennsylvania in order to access more affordable housing. Ease of access to highways, especially in the eastern portion of the county, has resulted in, according to the SGP, "over 60 percent of the county workforce to travel outside the county to their place of employment."

Unemployment in Sussex County has consistently remained below the state and United States annual unemployment rates for the last five years. As of May 31, 2006 the unemployment rate in Sussex County was 4.5 percent compared to 4.9 percent for the state and 4.7 percent for the nation.

The largest employers in Sussex County are Selective Insurance, Newton Memorial Hospital and Andover Subacute and Rehab Center and nearly 19 percent of the labor force is employed in the health care and social assistance industry.

For the first quarter of 2006 the median sale price of residential homes was \$313,300, which is an eight percent increase from 2005.

See Tables 8 through 11 in the Appendix.

#### Key Influencer Interviews

The following comments summarize the interviews conducted with area hospital staff at Saint Clair's Hospital and Newton Memorial Hospital.

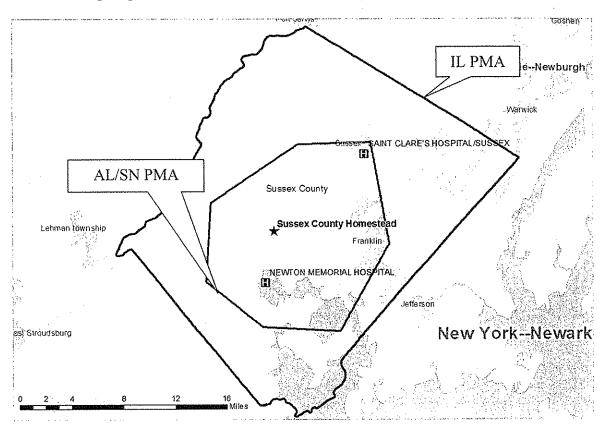
## Saint Clare's Hospital

- In general, Saint Clare's has received positive feedback from the community regarding the care provided at Homestead.
- Homestead employees are very good to work with, specifically the admissions department.
- Discharging a hospital patient to Homestead was described as a frustrating process. It was cited that Homestead's process of sending a nurse to the hospital for a clinical evaluation and meeting with family members prior to admitting a resident from the hospital has resulted in loss admissions of urgent or timely placements.
- Saint Clare's has difficulty finding nursing home beds for short-term rehabilitation patients and patients who require intravenous antibiotic therapy.

# Newton Memorial Hospital

- Newton Memorial Hospital's largest revenue generator is Horizon Blue Cross.
  The hospital is discharging patients to nursing homes located outside of Sussex
  County that have contracts with Horizon Blue Cross since there are no providers
  within the Sussex County that contract with Horizon Blue Cross.
- The hospital has difficulty finding nursing home placement for subacute patients.
- Newton Memorial Hospital indicated there is a need for nursing homes to provide services to support intravenous antibiotic therapy, wound care, physical therapy, tube feedings and to have a designated isolation room.

The following map shows the locations of the two hospitals in relation to Homestead.



New Jersey has set a priority to increase access to home-and-community-based services. There are currently two programs, CAP and JACC, available that allow those who are nursing home eligible to remain in their home and receive home-and-community-based services. The following information was gathered from the New Jersey Department of Health and Senior Services web site and an interview with the Sussex County Public Health Nursing department.

#### CAP (Caregiver Assistance Program)

- CAP is a Medicaid waiver administered by the New Jersey Department of Health and Senior Services.
- CAP provides home-and-community-based-services to nursing home eligible seniors who are 65-years or older (or those ages 21-64 who are disabled) and who meet certain financial criteria. Eligible seniors must qualify for SSI or qualify for Institutional Medicaid or have a gross monthly income that does not exceed the federal poverty level (\$817 in 2006) and must have resources of \$4,000 or less.
- Services provided by the waiver include: respite care, homemaker services, environmental accessibility adaptations, personal emergency response systems, home-delivered meal service, social adult care, special medical equipment and supplies, transportation and home-based supportive care.

• There is no co-pay required under the CAP program, however, there is a cost limit of \$1,000 per person per month under the waiver program.

#### JACC (Jersey Assistance for Community Caregivers)

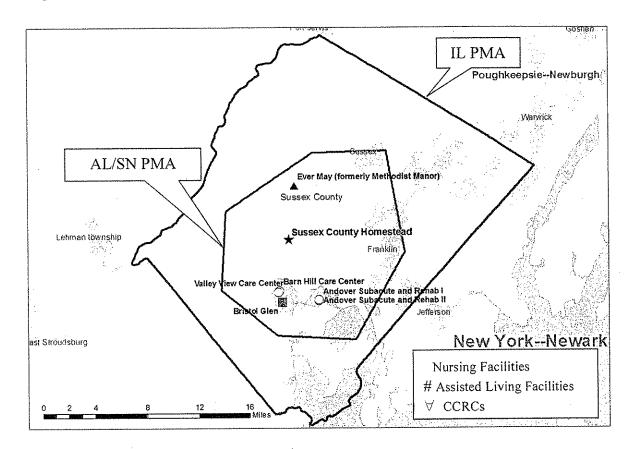
- JACC is a state-funded program that is administered by the New Jersey Department of Health and Senior Services.
- JACC provides home-and-community-based services to nursing home eligible seniors who are 60-years or older, who are ineligible for Medicaid or Medicare waiver services and who have a home to reside in.
- Financially, eligible seniors must have a monthly income that does not exceed 365 percent of the federal poverty level (\$2,983 in 2006) and must have resources of \$40,000 or less (\$60,000 for a couple).
- Services provided under JACC are the same as what's included under the CAP waiver.
- A co-pay based on an individual's income may be required in order to receive services. There is also a cost limit of \$600 per person per month.

A new program called Global Options for Long-Term Care ("GO") is being unveiled throughout the state and it is anticipated it will begin in Sussex County in the very near future. GO will supercede both CAP and JACC programs that are currently in place. The goal behind GO is to provide home-and-community-based services to those of all ages and all payor sources rather than having numerous compartmentalized programs with specific age and income requirements. Another goal of GO is to provide more of a balance in the distribution of public funds between nursing homes and home-and-community-based services. According to a June 2006 article by Fred Jacobs, the New Jersey Department of Health and Senior Services Commissioner, which appears on the New Jersey State League of Municipalities web site, currently 17 percent of Medicaid dollars go towards home-and-community-based services while the remaining 83 percent goes to nursing homes.

Most CAP and JACC participants were living in the community when they began receiving services. In addition to preventing residents living in the community from moving into a nursing facility, GO will also target nursing home residents who prefer to live in their home.

# Competitor Profile

Site tours were conducted with the competitor facilities located within the IL and AL/SN PMAs. The following summarizes key findings from the tours and the map below displays the locations of the competitors.



#### Barn Hill Care Center

Barn Hill Care Center ("Barn Hill") is a nursing facility located in Newton approximately four miles from Homestead and is located adjacent to Newton Memorial Hospital. Barn Hill is privately owned, however, Genesis HealthCare, one of the largest long-term care providers in the nation, is the manager.

Barn Hill consists of 130 beds of which 29 are rehabilitation beds and 34 are dedicated dementia beds located in a secured wing. The facility is constructing 20 subacute beds that are planned to be completed in 2007. According to the admissions person, the subacute unit will be geared towards younger residents who are receiving short-term services at the facility.

Overall, occupancy typically runs at approximately 95 percent, however, the dementia unit has been difficult to keep full. About 80 percent of Barn Hill residents are from Sussex County.

Barn Hill's rates are the second highest compared to the other nursing facilities within the AL/SN PMA. Only Bristol Glen has higher fees.

#### Valley View Care Center

Valley View Care Center ("Valley View") is a nursing facility licensed for 34 beds, however, it is currently operating at 31 beds. Valley View is located in Newton and is privately owned. The small nursing facility consists of two wings. One wing is primarily dedicated to long-term care residents and the other wing is dedicated primarily for rehabilitation residents.

Valley View considers its main competitors to be Bristol Glen, Barn Hill, Andover and Homestead. The nursing facility receives the majority of its referrals from the two Sussex County hospitals.

Valley View has competitive rates compared to the other nursing facilities in the area and has the highest percent of Medicare residents, likely due to its dedicated rehab. unit.

#### Andover Subacute and Rehab Centers

Andover Subacute and Rehab Centers ("Andover") includes two buildings on its campus. Building I consists of 159 beds that houses mostly long-term care residents. Building II is a three-story building that consists of 543 beds. Approximately 200 of the 543 beds are for residents with behavioral issues. Most of these residents are younger and are from areas outside of Sussex County.

Andover is in the process of converting one of its nursing wings in Building II into a secured dementia unit. This unit will accommodate 48 residents and will provide specialized programming to these residents.

The majority of Andover's residents are on Medicaid and their fees are the second lowest in the AL/SN PMA. Only Homestead has lower fees.

#### Bristol Glen

Bristol Glen is a CCRC that opened in 2001 and is a located in Newton approximately five miles from Homestead. Bristol Glen is sponsored by the United Methodist Homes of New Jersey, which has 10 additional communities throughout New Jersey.

The community consists of 88 independent living apartments, 58 assisted living beds and 60 nursing beds. There are eight floor plans available for the independent living apartments ranging in size from 647 square feet for the one-bedroom traditional up to

1,489 square feet for the two-bedroom custom unit. Residents have the choice between two entrance fee refund options, a 90 percent refundable plan and a non-refundable plan.

Approximately 50 percent of Bristol Glen's independent living residents are from Sussex County and the other half are from outside of the county or state. Many of the residents from outside the county have a connection to the area, such as family, that has brought them to Sussex County. Bristol Glen considers its main competitors to be The House of the Good Shepherd located in Hackettstown, NJ; Heath Village also located in Hackettstown; Crane's Mill located in West Caldwell, NJ; Fellowship Village in Basking Ridge, NJ; and Paragon Village in Mt. Olive, NJ.

The 58 assisted living beds are all one-bedroom units, however, some units can accommodate couples. Bristol Glen's assisted living has seven levels of care and requires a one-time admission fee. Currently there is a year-and-a-half wait list for the assisted living unit. As a result, Bristol Glen is planning to break ground in Spring 2007 to construct 20 additional assisted living units and 16 dementia assisted living units.

Daily fees for Bristol Glen's 60 nursing beds are the highest compared to the other nursing facilities within the AL/SN PMA. A private room is \$75 more than the next highest fee and a semi-private room is \$60 more. Currently, subacute residents are mixed in with long-term care residents in the nursing unit, however, Bristol Glen is planning to create a separate subacute unit in the future.

In the State of New Jersey, assisted living facilities are broken into four categories: assisted living residences, comprehensive personal care homes, residential health care facilities and Class C Boarding Homes. Bristol Glen is licensed as an assisted living residence. Additionally, there are three Class C Boarding Homes within the AL/SN PMA (Merrian House, The Pines Inn and Westwind Hall). Class C Boarding Homes provide congregate care services such as meals, housekeeping and administering medications; however, they do not provide assistance with activities of daily living. These facilities also serve a wide age group, not only seniors. Therefore we have not profiled the Class C Boarding Homes for the purposes of this study.

Parente utilized numerous sources including County and State housing directories, the New Jersey Association of Non-Profit Homes for the Aging member directory and various senior housing web sites to identify affordable independent living communities within the IL PMA. Based on this research no affordable independent living communities were identified within the IL PMA.

See Appendix for Competitor Table/Grid.

## Planned Developments

According to interviews with the local planning and zoning departments of the 23 municipalities in Sussex County and a review of current certificate of need applications

filed with the Department of Health and Senior Services, Division of Health Facilities Evaluation and Licensing for assisted living facilities, one new community was identified.

EverMay Manor is an assisted living residence currently under construction in Branchville. EverMay Manor is located at the former Methodist Manor House assisted living facility location. EverMay purchased the Methodist Manor House building from United Methodist Homes of New Jersey three years ago. Renovations on the building are expected to be completed by September 2007. EverMay will consist of 51 units with monthly fees ranging from \$3,600 to \$3,900 per month. Lifestyle Concepts will manage the facility.

Appendix

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# Demographic Analysis

The following tables profile the senior population change for the IL and AL/SN PMAs.

Table 1 Senior Population Change for the IL PMA

	2005 (Estimated)	2010 (Projected)	Average Annual Compounded Percentage Change 2005-2010
PMA – Sussex County			
Total Population	151,908	158,723	0.9%
Age 45 to 64 Population	44,367	49,393	2.2%
Age 65 to 74 Population	8,183	10,236	4.6%
Age 75 to 84 Population	5,224	5,269	0.2%
Age 85 Plus Population	2,034	2,295	2.4%
Total 65 Plus	15,441	17,800	2.9%
Total 75 Plus	7,258	7,564	0.8%

Source: ESRI BIS, August 2006. Based on Year 2000 census data.

Table 2
Senior Population Change for the AL/SN PMA

	2005 (Estimated)	2010 (Projected)	Average Annual Compounded Percentage Change 2005-2010
Primary Market Area	**************************************		
Total Population	64,331	67,056	0.8%
Age 45 to 64 Population	18,932	21,138	2.2%
Age 65 to 74 Population	3,869	4,701	4.0%
Age 75 to 84 Population	2,872	2,828	-0.3%
Age 85 Plus Population	1,317	1,434	1.7%
Total 65 Plus	8,058	8,963	2.2%
Total 75 Plus	4,189	4,262	0.3%

Source: ESRI BIS, August 2006. Based on Year 2000 census data.

The following tables present households by age and income for the IL and AL/SN PMAs.

Table 3

Households by Age and Income Within the IL PMA

	2005 (Estimated)			
Age-and-Income Eligible Households	65-74	75+	Total	
Total Households:	4,847	2,985	7,832	
Household Income - Under \$15,000	566	641	1,207	
\$15,000 - \$24,999	760	628	1,388	
Household Income – \$25,000+	3,521	1,716	5,237	
Percentage of Households With Income \$15,000-\$24,999 to Total Households	15.7%	21.0%	17.7%	
		2010 (Projected)		
Age-and-Income Eligible Households	65-74	75+	Total	
Total Households:	6,063	4,427	10,490	
Household Income – Under \$15,000	518	859	1,377	
\$15,000 - \$24,999	777	802	1,579	
Household Income - \$25,000+	4,768	2,766	7,534	
Percentage of Households With Income \$15,000-\$24,999 to Total Households	12.8%	29.0%	15.1%	

Source: ESRI BIS, August 2006. Based on 2000 census data.

Table 4

Households by Age and Income Within the AL/SN PMA

	2005 (Estimated)	2010 (Projected)
	Age 75+	Age 75+
Total Households:	2,351	2,437
Household Income Under \$25,000 (less homeowners \$15,000 - \$24,999)	692	618
Income-Eligible Households		
Homeowners \$15,000 - \$24,999	423	388
\$25,000 - \$34,999	320	266
\$35,000 - \$49,999	280	290
Total Households With Income \$25,000- \$49,999 and homeowners \$15,000 —\$24,999	1,023	944
Percentage of Income Eligible Households to		
Total Householders	43.5%	38.7%

Source: ESRI BIS, August 2006. Based on 2000 census data.

#### Penetration Analyses

The following table presents the affordable independent living project penetration rate analysis for the IL PMA, based on 2010 projected demographics. For purposes of this study, it is assumed that seniors who are 65+ with income between \$15,000 and \$24,999 would be age-and-income qualified for affordable independent living housing. Based on this analysis the IL PMA could potentially support 60 affordable independent living housing units.

There are no existing affordable independent living communities within the IL PMA, therefore, a market penetration calculation has not been included in the table below.

Table 5					
Independent Living Penetration Anal	alysis – 2010 Scenario assumes 60 Project units				

	Age-and-Income Eligible Households (65 Plus)	Likely Age-and- Income Eligible Households (75 Plus)
Project Penetration Rate (\$15,000-\$24,999 Income Threshold): <sup>(1)</sup>		10 to
Number of age and income eligible households	1,579	802
Less: Existing and planned comparable units and existing units at Homestead (2)	0	0
Net number of age and income eligible households	1,579	802
Proposed units at the Project at 95 percent occupancy (3)(4)	40	40
Project penetration rate	2.5%	5.0%
Independent Living Project Penetration Benchmarks	Less than 3.0%	Less than 5.0%

Source: ESRI BIS.

Notes:

- (1) Householders with income between \$15,000 and \$24,999 are considered to be income qualified for market penetration rates.
- (2) There are no existing or planned comparable units within the IL PMA and no existing units at Homestead.
- (3) It is assumed that 70 percent of a 60-unit Project would be filled with residents from within the IL PMA  $(60 \times 70\% = 42)$ .
- (4) Assumes a 95 percent occupancy rate  $(42 \times 95\% = 40)$ .

The following table presents the assisted living project penetration rate analysis for the AL/SN PMA, based on 2010 projected demographics. For purposes of this study, it is assumed that seniors who are 75+ with income between \$25,000 and \$49,999 and homeowners 75+ with income between \$15,000 and \$24,999 would be age-and-income qualified for affordable assisted living services. Based on this analysis the AL/SN PMA could potentially support 20 assisted living beds.

There is one existing assisted living provider (Bristol Glen) and one planned assisted living provider (EverMay Manor) within the AL/SN PMA. Both facilities have monthly fees that would require an income greater than \$50,000; therefore, a market penetration calculation has not been included in the table below.

Table 6

2010 Project Penetration Rates for Assisted Living Beds within the AL/SN PMA –Scenario assumes a 20-bed Assisted Living Project

	Age-Qualified Households	Age-and-Income- Qualified Households
Project Penetration Rates (\$25,000-\$49,999 Income and Homeowners with incomes between \$15,000 and \$24,999):		
Number of qualified households	351 <sup>(2)</sup>	136 <sup>(3)</sup>
Number of proposed planned units at Homestead (1)	13	13
Project penetration rate	3.7%	9.6%
Assisted Living Project Penetration Benchmarks	Less than 7.0%	Less than 10.0%

Source: ESRI.

Notes: (1) Assumes a proposed assisted living Project of 20 beds at Homestead. It is assumed that 70 percent of the proposed beds will be filled with resident from within the AL/SN PMA at an assumed occupancy of 95 percent.

(2) The number of age-qualified households is calculated by multiplying the number of 75+ households by the percent requiring assistance and then by the percent living alone  $(2,437 \times 28.6\% \times 50.4\% = 351)$ .

(3) The number of age-and-income-qualified households is calculated by multiplying the number of 75+ households with an income between \$25,000 and \$49,999 and homeowners with an income between \$15,000 and \$24,999 by the percent requiring assistance and then by the percent living alone (944 x 28.8% x 50.4% = 136).

# Nursing Home Bed Need Analysis

The methodologies utilized in this analysis were based on 2010 demographic projections, and yielded the following results, as compared to the existing nursing beds within the AL/SN PMA (825 beds total including the 102 beds at Homestead, not including the 200 behavioral beds at Andover) for seniors age 85 plus, unless otherwise indicated.

Table 7

Nursing Home Bed Need for the AL/SN PMA

85÷	
637 bed surplus	
564 bed surplus	
563 bed surplus	
550 bed surplus	
628 bed surplus (1)	
	637 bed surplus 564 bed surplus 563 bed surplus 550 bed surplus

Note: (1) For the 65-plus population.

Based on this analysis there is a surplus between 550 nursing beds to 637 nursing beds in the AL/SN PMA.

Phone interviews and site visits confirmed that all of the existing nursing facilities within the AL/SN PMA, with the exception of Homestead, currently have or are planning to offer a designated subacute/rehabilitation unit. Additionally, two existing nursing facilities, Barn Hill and Andover, also offer designated dementia units.

# Unemployment Rate

The unemployment rates for Sussex County, New Jersey, and the United States are shown in the following table as recorded by the Bureau of Labor Statistics.

Table 8
Unemployment Trends

	2001	2002	2003	2004	2005	$2006^{(1)}$
Sussex County	3.7%	4.9%	5.1%	4.2%	3.8%	4.5%
New Jersey	4.3%	5.8%	5.8%	4.9%	4.4%	4.9%
United States	4.7%	5.8%	6.0%	5.5%	5.1%	4.7%

Source: Bureau of Labor Statistics, July 2006.

Note: (1) As of May 2006.

# Major Employers

The following are the top 10 employers in Sussex County according to the Sussex County Strategic Growth Plan.

Table 9

Top 10 Employers in Sussex County

Ranking	Employer	City	Employees
1	Selective Insurance	Branchville	954
2	Newton Memorial Hospital	Newton	805
3	Andover Subacute and Rehab Center	Andover	800
4	County of Sussex	Newton	770
5	Mountain Creek/Intrawest	Vernon	776
6	Ronetco Supermarkets, Inc.	Ledgewood	672
7	Vernon Township Board of Education	Vernon	664
8	F. O. Phoenix, Inc. (Econo-Pac)	Sussex	600
9	Sparta Board of Education	Sparta	517
10	Hopatcong Board of Education	Hopatcong	450

Source: Sussex County Strategic Growth Plan, July 2006.

The following table summarizes the average annual major industry classifications of employment for Sussex County as provided by the U.S. Census Bureau, Local Employment Demographics.

Table 10

Major Industry Classifications for Employment for Sussex County

Industry	Labor Force Percentage
Health Care and Social Assistance	18.8%
Retail Trade	16.0%
Accommodation and Food Services	11.3%
Construction	7.3%
Manufacturing	6.6%
Professional, Scientific, and Technical Services	6.3%
Arts, Entertainment, and Recreation	5.1%
Administrative and Support and Waste Management	
and Remediation Services	4.8%
Wholesale Trade	4.6%
Other Services	4.5%
Management of Companies and Enterprises	4.0%
Transportation and Warehousing	3.6%
Finance and Insurance	2.8%
Information	1.6%
Real Estate and Rental and Leasing	1.1%
Educational Services	1.0%
Utilities	0.5%
Total Employment Classifications	100.0%

Source: U.S Census Bureau, Local Employment Dynamics, July 2006.

The following table summarizes real estate trends in Sussex County, New Jersey as provided by the National Association of Realtors.

Table 11

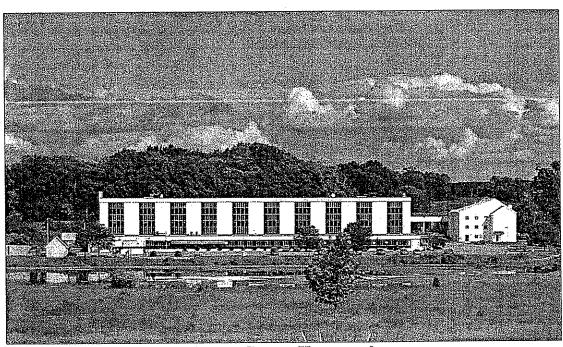
Real Estate Trends

Sussex County, New Jersey	2004 (1)	2005 (1)	2006 (1)
Number of homes sold	390	331	327
Median sale price	\$254,300	\$290,400	\$313,300

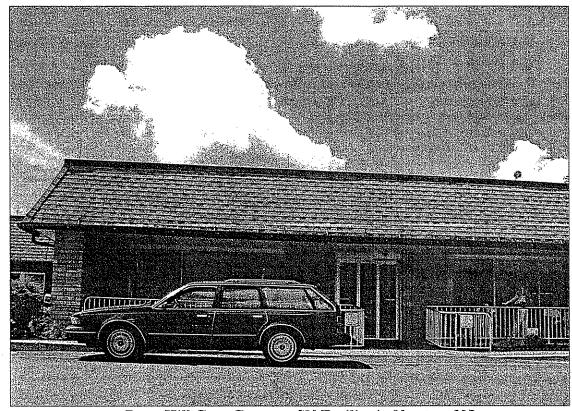
Source: National Association of Realtors, July 2006. Notes: (1) Data is for first quarter of respective years. Photo Gallery

**PARENTE**RANDOLPH

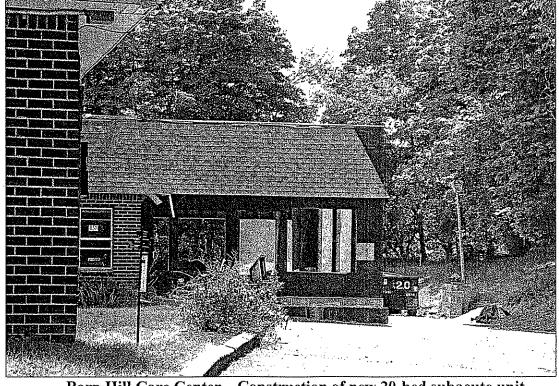
Accountants & Consultants



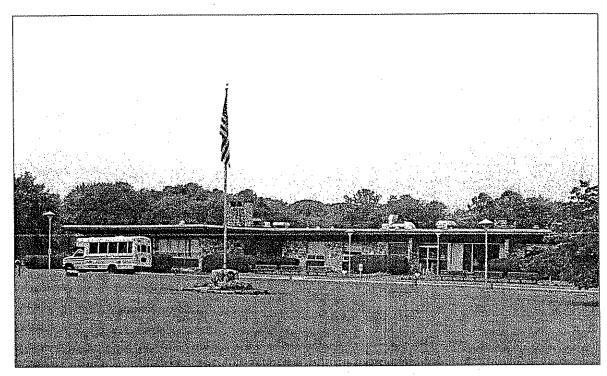
Sussex County Homestead



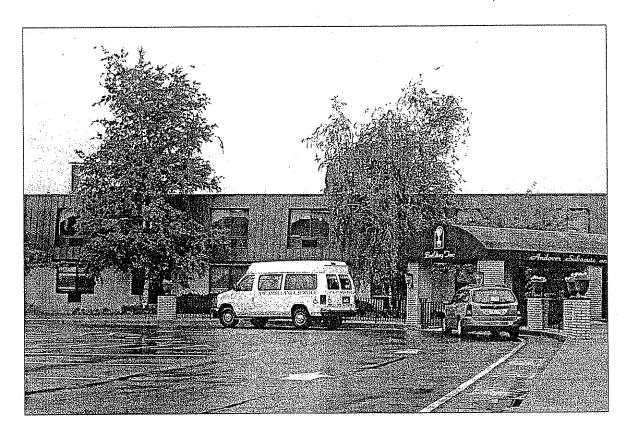
Barn Hill Care Center - SN Facility in Newton, NJ



Barn Hill Care Center - Construction of new 20-bed subacute unit

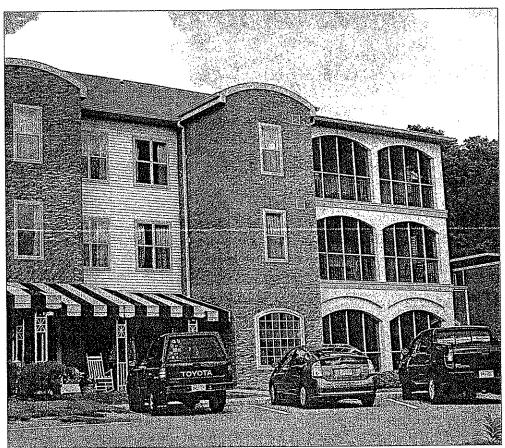


Andover Subacute and Rehab Center Building I - SN Facility in Andover, NJ

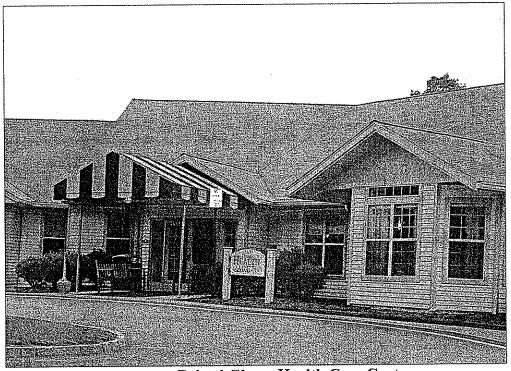




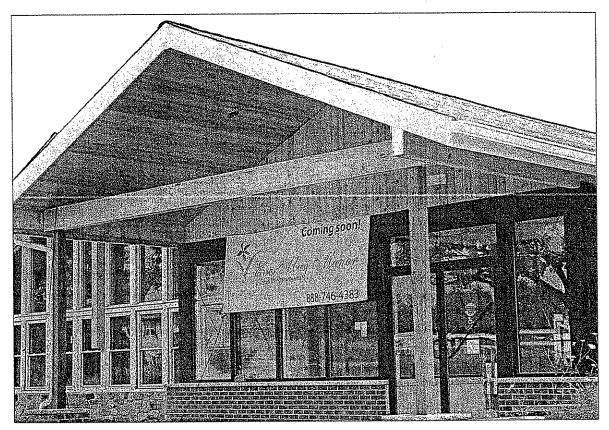
Valley View Care Center - SN Facility in Newton, NJ



Bristol Glen - CCRC in Newton, NJ

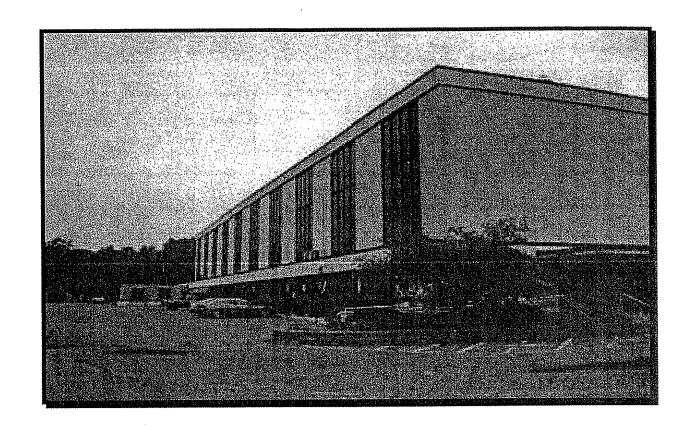


Bristol Glen – Health Care Center



Ever May Manor - New AL facility under construction in Branchville, NJ

The Pover of Wars



# Homestead Nursing Facility Sussex County, New Jersey

# Facility Assessment Report

Prepared by Horst Construction, IEQ Engineering and Ritchie Engineering

September 6, 2006

#### SUSSEX COUNTY HOMESTEAD NURSING FACILITY

#### **EXECUTIVE SUMMARY**

The enclosed study and report was prepared to provide a facility assessment of the existing building and to address recommendations based upon our findings noted during site surveys, review of existing building drawings, discussions with facility and maintenance and other documentation provided by the Owner.

The report includes information on the following topics:

- Building Overview
- Report Document Information
- Applicable Codes
- Life Safety Evaluation
- Accessibility Evaluation
- Energy Code
- Structural Evaluation
- Plumbing Evaluation
- Heating Ventilation and Air Conditioning Systems Evaluation
- Fire Protection System Evaluation
- Electrical Systems Evaluation

An evaluation of hazardous materials is not included in this report. A supplemental report will be provided addressing this topic.

The summary of recommendations and estimated opinions of costs are noted below. It should be noted that the estimated opinions of cost are budgetary numbers only and do not necessarily reflect all work needed to compel a closer cost estimate and are based on square foot values.

The categories for the purpose of the report as noted as follows:

#### Priority 1 Items:

Code deficiencies items which should be addressed.

#### Priority 2 Items:

Accessibility items which should be addressed.

#### **Priority 3 Items:**

 Recommendations of upgrades to the building infrastructure to implement current energy conservation measures which will also provide utility usage savings to the Owner. These items would have a payback over time.

#### **Priority 4 Items:**

Recommendations for upgrades for cosmetic purposes.

#### Priority 5 Items:

 Recommendations for upgrades to existing systems or the addition of new equipment to enhance operation of the facility and/or provide additional comfort levels for the patient areas.

Priority 1 Recommendations	Approximate Construction Cost	Time Frame and Notes
Means of Egress alterations (stair railings, doors, alcoves, etc.)	\$60,000	1 to 2 years
Smoke Barriers (door hardware, inspect current smoke barriers – seal as required)	\$40,000	1 to 2 years
Elevator Equipment Room Upgrades	\$8,000	1 to 2 years
Extend the sprinkler system to include the entry vestibule	\$7,000	1 to 2 years
Install new propane tank system with vaporizer and air compressor. System to reduce natural gas costs from non-interruptible to interruptible rate.	\$18,000	1 to 2 years
Provide new kitchen make up air unit, exhaust fan and hood for kitchen cooking equipment.	\$18,000	1 to 2 years
Install GFCI type receptacles in weatherproof enclosures within 25 feet of rooftop equipment.	\$4,500	1 to 2 years
Replace the generator with a new generator with an integral sub base fuel tank.	\$100,000	1 to 2 years
Add an additional transfer switch and separate the "life safety" and nonessential loads.	\$24,000	1 to 2 years
Provide top of wall support for exterior cmu wall on fourth floor	\$20,000	1 to 2 years
Upgrade building to meet required Construction Type IB based on current I-2 occupancy use and four story height (install fire-proofing) (See Note 1)	\$1,500,000	Dependent of code review of building alteration projects.

Note 1: This work is required should the shelled fourth floor be used as an occupied space. This work can be differed should space remain as shelled space.

Priority 2 Recommendations	Approximate Construction Cost	Time Frame and Notes
Upgrade public/employee restroom	\$70,000	2 to 4 years
Upgrade patient restrooms	\$120,000	2 to 4 years
Upgrade control heights	\$30,000	2 to 4 years
Front Reception Counter	\$1,500	2 to 4 years
Conference Room A Alcove	\$1,000	2 to 4 years
Door Hardware	\$40,000	2 to 4 years
Water Fountain	\$1,500	2 to 4 years
Replace existing water closets with new handicapped models in patient's rooms.	\$140,000	2 to 4 years
<u>Priority 3</u> <u>Recommendations</u>	Approximate Construction Cost	Time Frame and Notes
Install new metal furring and 2" of rigid insulation	\$5.00 SF	3 to 5 years
Install 4" rigid insulation and new EPDM roofing	\$150,000	3 to 5 years
Install new window systems	\$800,000	2 to 5 years
Replace lighting fixtures with energy efficient T-8 or T-5 lamps and electronic ballasts.	\$125,000	2 to 5 years
<u>Priority 4</u> <u>Recommendations</u>	Approximate Construction Cost	Time Frame and Notes
Repair chimney brick	\$3,000	1 to 2 years

Priority 5 Recommendations	Approximate Construction Cost	Time Frame and Notes
Install a new well pump for 220 GPM and tie pumps in parallel operation with existing pump.	\$30,000	2 to 5 years Will provide a back-up water source for the facility.
Install a new chemical treatment system for the potable water system with a water analysis connected into the computer system for reports.	\$15,000	2 to 5 years
Install new domestic hot water storage tank and heating system	\$35,000	1 to 3 years
Modify the hot water boiler piping for fan coil outside air reset control and domestic hot water heater service.	\$25,000	Perform work for operation of new boilers being installed now.
Provide new ventilation system for the building to delete OA intakes and recover energy from exhausted air.	\$560,000	1 to 5 years Alternate ventilation means due to fan coil problems.
Modify hot and chilled water pipe riser to fan coil units to add control valve to floor units and extend riser to fourth floor and roof ventilation units.	\$30,000	3 to 5 years
Provide isolation valves on domestic water risers serving each patient toilet room.	\$23,000	3 to 5 years
Replace the existing 1600 amp main electrical service switchboard.	\$35,000	3 to 5 years Existing piping above gear should be relocated to meet code.

#### **BUILDING OVERVIEW**

The building is a four story steel structure constructed in the late 1960's for facilitating nursing care to the elderly. The first floor is approximately 17,720 square feet consisting of office staff support areas, food preparation, meeting rooms, physical therapy area and facility equipment support spaces (i.e., boiler room, electrical equipment, chiller room). The second and third floor spaces are each approximately 12, 720 square feet each with 26 patient rooms on each floor for long term patient care. The fourth floor, approximately 12, 720 square feet, is an unfinished area which is currently being utilized as a storage area.

#### APPLICABLE CODES

The State of New Jersey has adopted a state-wide building code which includes the 2000 International Building Code (IBC) and the 2005 National Electrical Code. The 2000 International Existing Building Code (IEBC) may also apply to the facility. This code provides specific guidelines pertaining to the renovation of an existing building and may allow the applicant to conduct renovations without upgrading the entire building for code compliance under a single construction contract.

Any new renovation work needs to comply with these codes and all other codes enforced by the local authority having jurisdiction.

The nursing facility must also comply with the "AIA Guidelines for the Design and Construction of Hospital and Health Care Facilities", 2001 edition, Chapter 8 Requirements for Nursing Facilities. These guidelines are considered code requirements by the State Health Departments and are followed as code requirements.

For the purpose of this report, the existing facility was reviewed for total compliance with the 2000 IBC. However, once specific upgrades are earmarked for completion, it is recommended that the 2000 IEBC be reviewed.

#### REPORT DOCUMENT INFORMATION

The information obtained in preparing this report was based upon a comprehensive building site survey, limited existing building drawing information, discussions with facilities and maintenance and other documentation provided to us by the Owner. It should be noted that we did not have access to review above accessible ceiling areas due to certain Owner restrictions in regards to the potential of hazardous materials.

#### LIFE SAFETY EVALUATION

#### **Existing Building Construction**

The existing building is a four story, steel framed structure with exterior masonry curtain walls. The floor and roof systems are constructed of pre-cast concrete double tee floor planks. Based on Owner provided information, it is understood that some of the steel structure is covered with spray-on fire-proofing and that portions of the fire-proofing has been abated. The extent of the subject fire-proofing could not be reviewed due to concern regarding hazardous materials above the ceiling. It does not appear that the steel columns were protected (fire-proofed). The building is equipped with an automatic sprinkler system.

### **Construction Type**

Every building is assigned a construction type per the 2000 IBC. The assigned construction type along with the use group is utilized to determine the allowable number of stories and the allowable area of each story. The existing building is classified as Construction Type IIB. Type IIB construction requires construction materials to be non-combustible, such as concrete and steel, which are present in the facility. Additional protection in the form of spray-on fireproofing or rated enclosures of the main structural elements (columns, beams, etc.) is not required under Type IIB.

#### **Use Group**

The current building use group is I-2. The subject use group includes facilities such as nursing homes and hospitals where patients require care on a 24 hour basis. Patients in such facilities may not be able to respond to emergency situations without physical assistance from the staff.

Based on a Construction Type IIB and I-2 occupancy, the allowable number of stories for the current building is one which exceeds the four stories that currently exist. The 2000 IBC limits the number of stories under the I-2 occupancy group to facilitate egress or evacuation from the building in the case of an emergency.

The allowable number of stories may be increased if alterations are completed to allow for a change in the construction type to IB with the use group remaining as an I-2. The Type IB would bring the facility in compliance with the 2000 IBC. Type IB is more restrictive than Type IIB in that in addition to all materials being non-combustible, the main structural elements require a fire rating. As discussed previously, the subject fire rating may be achieved by spray-on fire proofing or rated enclosures usually constructed of multiple layers of gypsum board (drywall). In addition, the underside of the concrete floor system would require spray-on fire-proofing.

Based on a review of the building, the extent of fireproofing required to achieve a Type IB construction is substantial. Significant alterations would be required to accomplish a Type IB construction given the constraints of the existing building and may be cost prohibitive.

#### Fourth Floor Occupancy

The fourth floor of the building is currently unfinished. The building shell (structure, exterior walls and roof) is in place, but no interior infrastructure has been completed. The space is currently being used for storage.

Based on the building construction type, significant building modifications would be required to occupy the fourth floor while maintaining the I-2 occupancy on the first through third floors. The subject modifications were described in the Use Group summary provided previously and would need to be completed prior to utilizing the space for any type of occupancy.

#### Means of Egress

The means of egress from the existing building during an emergency would include the two stairwells. The stair width, rise and run meet 2003 IBC code. However, the guard and handrails in the stairwells do not meet code and would need to be replaced. In addition, the entrance door into the south stair from the corridor encroaches into the egress path of someone trying to exit the building. The subject door would require alteration to meet code.

#### **Smoke Barriers**

Limiting the transfer of smoke in an I-2 occupancy is essential because of the lack of mobility of the residents. Per 2000 IBC, all corridor walls are required to be smoke barriers. All doors located in the corridor walls will require seals around them to impede the transfer of smoke into adjacent rooms. It appears that doors have been installed in the corridors to segment the floors into the separate smoke areas. The hardware on some of the subject doors appeared suspect and should be reviewed and replaced if required.

### **Elevator Equipment Rooms**

Per the 2000 IBC, elevator equipment rooms must be enclosed with construction having a fire-resistance rating not less than the elevator shaft. This requirement applies to the rooms regardless of the building construction type or occupancy use. The existing equipment enclosures in the building should be reviewed for this requirement. An allowance has been provided in the recommendations for potential upgrades required to provide the fire rating.

### **Summary of Life Safety Recommendations**

Recommendations are based on upgrading the existing building for total compliance with the 2000 IBC. As stated previously, if the work is submitted under the 2000 IEBC there is an opportunity to complete the work at different times, without the need to upgrade the entire building under a single construction contract.

Due to the limited knowledge on the extent of acceptable fire-proofing in place and the quantity of interior renovations required to install new fire-proofing, additional contingency has been included in the fire-proofing cost.

#### **ACCESSIBILITY EVALUATION**

Handicap accessibility into the building is achieved by a series of exterior ramps which meet 2000 IBC code requirements. Accessibility to the upper floors is achieved by two elevators. Some elevator controls and signage will require upgrades to meet current codes.

Public, employee and resident restrooms do not meet current accessibility requirements. Significant enlargement of these rooms will be required to meet code. Sinks located in resident rooms do not meet accessibility requirements.

Many wall mounted controls (thermostat, security system, fire alarm pull stations, etc.) are located too high off the floor to meet current handicap reach guidelines. Controls throughout the building will require review and shall be lowered as required to meet code.

A low, accessible counter was not present at the main reception desk in the front lobby. The counter will require alteration or replacement to meet code.

Most of the door hardware throughout the facility consists of knob-type hardware which does not meet 2000 IBC accessibility requirements. The subject hardware will require replacement with lever-type hardware.

Upgrades to the existing water fountains will be required to meet accessibility approach requirements.

#### **ENERGY CODE**

The building envelope was reviewed in regards to the 2000 International Energy Conservation Code. The purpose of the subject code is to provide minimum requirements regarding energy usage and loss in buildings.

Existing drawings indicate that 1" rigid insulation was installed on the inside of the exterior cmu walls on the first, second and third floors prior to installing the wall finish. No wall insulation is present on the fourth floor. The 1" rigid insulation provides an approximate R-value of 3. The 2000 IECC requires a minimum R-value of 5 in wall construction. It is recommended that addition insulation be installed in the walls as areas are renovated throughout the building.

The presence of roof insulation could not be confirmed during the site visit because of limited accessibility. The existing drawings indicate that 1" rigid insulation was installed on the original roof (now the fourth floor) prior to installing the built-up roofing. For the purpose of this evaluation, it is assumed that similar construction was used when the fourth floor was added. As with the walls, the 1" rigid insulation would provide an approximate R-value of 3. The 2000 IECC requires a minimum R-value of 23 for the roof insulation. It is recommended that additional insulation be installed on the roof during the next re-roofing project to provide the minimum R-value as specified by the code.

The exterior windows in the building appear to consist of single glazing and are approaching the end of their life expectancy. A high level of maintenance should be expected on the existing window units in the upcoming years. If the building is to remain in use, consideration may be given to replacing the window units and even reducing the quantity of windows to achieve a decrease in air infiltration and heat loss.

#### STRUCTURAL EVALUATION

The purpose of the structural evaluation was to record any visible structural deficiencies as well as to review the live load capacities of the existing floor and roof framing in regards to minimum 2000 IBC requirements. A review of the lateral load resisting system of the building was not completed.

Upon a review of the building, the following structural observations were recorded.

- The exterior brick veneer appears to be in satisfactory condition. No significant cracking was observed in the veneer. Minor deterioration of the brick units and mortar were observed at the top of the chimney locations and should be repaired.
- 2) Several cracks were observed in the concrete foundation wall on the east side of the facility. These cracks are most likely caused by a combination of concrete shrinkage and foundation settlement. The subject cracks, in their existing state, do not require repair.

3) It appears that the exterior cmu curtain wall on the fourth floor is unsupported at the top of the wall (laterally). The subject walls extend to the underside of the steel roof beams, but do not connect to the beam. In addition, no masonry ties were observed between the cmu wall and the steel columns located in the exterior wall.

A structural analysis of the framing members at typical bays indicates that approximately 100 pounds per square foot (PSF) and 60 PSF live load capacities are present at the floors and roof, respectively.

It should be noted that the live load capacities are based on a review of the structural steel members only. The existing pre-cast concrete double tee floor members are a proprietary item that was manufactured at the time of the original construction. Approximating the load carrying capacities of the subject precast members would require locating the original manufacturer or conducting a detailed destructive investigation and engineering analysis. At the time of this report, the manufacturer of the subject members could not be identified.

The 2000 IBC defines design floor live load requirements based on use. The 100 PSF live load capacity is in excess of the code required minimum for typical use in an I-1 or I-2 occupancy. The 2000 IBC requires that resident rooms and corridors have a minimum live load capacity of 40 PSF and 80 PSF, respectively. In addition, the 60 PSF roof live load capacity is in excess of the code required minimum roof live or snow load.

#### PLUMBING EVALUATION

# **Domestic Water Supply**

Domestic water is provided by a well water system that consists of a single pump in a manhole located adjacent to the chiller and emergency generator room. The water quality is monitored by a certified laboratory. Chemical water treatment, consisting of chlorine injection is performed by the building maintenance staff. The present pump is reported to provide adequate water supply volume to the building. However, the water pressure was observed to be at 35 PSIG at the first floor which would be inadequate for new plumbing fixture flush valves at the third or fourth floor that would require 30-40 PSIG for operation.

A new well water pump with new hydro pneumatic water storage tanks should be installed adjacent to the existing and be sized for 220 GPM at 55 PSIG. Excess capacity should be considered to serve other buildings on site, additional evaluation would be required to validate this need.

A new well water quality monitoring panel with filtering and automatic injection of chemicals into the domestic supply should be provided. The water quality would be monitored and report electronically to the central control console and programmed to initiate an alarm to indicate unsafe water conditions.

### **Domestic Hot Water Supply**

There are two oil fired domestic hot water heaters to serve the building kitchen and domestic water systems. The first unit is oil fired, 85 gallon water storage capacity and is set for 115 degrees F, capacity of 623 MBH with 654 gallon per hour of recovery and serves the patient and public areas domestic hot water requirements. The second unit is also an oil fired domestic water heater, 70 gallon water storage capacity and is set for 140 degrees, capacity of 242 MBH with 261 gallon per hour recovery and serves the kitchen. Both units are labeled

with an ASHRAE 90.1 Energy Standards of 1989 and assumed to have been installed in early 1990's. The two units are interconnected for standby service in the event a single unit be inoperative and require service. The units are in fair condition but should be scheduled for replacement in the near future.

The new heating hot water boilers that are being installed have an arrangement for a future connection to a new water storage tank with an independent heating element. The heater should be sized to provide 140 degree F to kill Legionellae. However the hot water boilers should be controlled with outside air temperature set back and may not have ample capacity or control to serve the domestic water system.

New domestic hot water heater should have 250 gallon storage with 1200 gallons per hour recovery capacity and a heating element sized for 900 MBH capacity. Additional work for the domestic hot water heater is listed under the heating system review.

#### Water Softener

There is a water softener and brine tank installed in the boiler room to deminieralize the domestic hot water through out the building. The softened water will provide longer life expectancy to the domestic water storage tanks. The system was reported to have been checked recently and is reported to be in good condition.

# Oil Storage System

There is a 10,000 gallon oil storage tank that was installed in 1997 to replace the original underground tank. The new tank was reported to be a double wall tank and was provided with monitoring equipment and meets the current requirements for underground oil storage. There is a single oil transfer pump that circulates oil to the domestic water heaters. A standby pump is required to provide back up to the water heaters in the event of a primary pump failure. A conversion of heating equipment to natural gas will eventually require the storage tank and associated pumps to be removed.

#### **Natural Gas Service**

Natural gas is piped to the building to serve the existing kitchen. Natural gas is also piped to the new boilers in the boiler room. The natural gas would be the single fuel source to the building for domestic hot water and heating hot water. The service is reported to be provided by Elizabethtown Gas Company.

The gas utility costs could be reduced through an interruptible rate by the addition of a backup propane system. The propane system would consist of an LP gas storage tank and a vaporizer and air mixing system. The LP gas would have the same heating value as natural gas and can be easily switched from natural gas to propane usage. The interruptible gas cost rate can save half of the fuel cost to the building. A third party gas provider would be required to achieve this reduced rate.

AIA Guidelines for Nursing Facilities indicates that standby equipment for normal and standby services be installed per 8.31.C2. Many jurisdictions require that a dual fuel source be supplied to heating equipment. The propane backup will satisfy this requirement while reducing natural gas costs via the interruptible service.

### **Domestic Water Piping**

The domestic water piping was originally installed in 1968 and consists of copper piping and lead solder joints. The piping is insulated with fiberglass insulation and has been in service for 39 years. There are no reports of failing piping from the maintenance staff. The piping visible below the ceilings appeared to be in good condition. Copper piping has a normal life expectancy of 50 or more years and can be replaced in sections as needed in the future.

It appears that plumbing fixture isolation valves have not been installed on the existing water service lines located in the corridors throughout the facility. In order to assist in the maintenance of the facility, our recommendation would be to add isolation valves to the system to allow localized water system shutdown. This will minimize disruption problems to the entire building system. Further design evaluation will be required to determine locations.

# Sanitary and Storm Piping

The sanitary piping was originally installed in 1968 and consists of cast iron piping and some copper piping for the smaller lines. The piping has been in service for 39 years. There are no reports of failed piping from the maintenance staff. The piping visible below the ceilings appeared to be in good condition. Cast iron and copper piping has a normal life expectancy of 50 or more years and can be replaced in sections as needed in the future.

### **Plumbing Fixtures**

The plumbing fixtures appear to be in good condition throughout the building. The patient rooms on the second and third floors are provided with a single toilet room which serves two adjoining patient rooms. The toilet rooms are provided with water closets of standard height with a separate added chair adjacent to the water closet for patients use. The wall mounted grab bars were not positioned properly for use by elderly patients. The water closets also have a bedpan washer included with a hose connection to the flush valve. New water closets should be provided at handicap height with bed pan lugs and a flush valve with an integral bed pan washer.

Wall mounted lavatories were installed in each patient room with wrist blade handles. All the lavatories appeared to be in good condition and would satisfy current code requirements.

# **Medical Gas Systems**

There is no central piped oxygen, vacuum or medical air systems in the building.

# HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS EVALUATION

### **Hot Water Heating Boilers**

The existing oil fired boilers were removed and three new high efficiency (88%) gas fired boilers are currently being installed. Each boiler is sized for 1,320 MBH output for a maximum 2640 MBH output capacity with one boiler operating as standby. The boilers appear to be sized correctly to handle the present and future loads of the building.

The present boiler system design does not satisfy both the building heating water demands and the domestic hot water demands during off peak periods. The domestic water system

should have 180 degree F water temperature supply to the heater available both summer and winter. A hot water reset should be provided for the fan coil system to avoid overheating. Also an emergency boiler shut off switch should be installed to shut down power to all equipment in the boiler room under emergency conditions. It is also our understanding that the capital project for the boiler replacement does not address how the overhead door issue serving the boiler room is being resolved. Concern has been raised to us regarding cold air infiltration through this door which could freeze piping located in the boiler room.

The boilers should be re-piped to provide an individual circulating pump to each boiler and set the pump to start and stop with the boiler through the boiler room control panel. The hot water supply and return piping should be looped to allow separate secondary pumping to the domestic hot water heater and heating hot water pump. The heating hot water pump should be provided with a blending valve to reset the hot water supply to the building with an alternate to add variable speed pump controls or a bypass valve to the heating piping. The variable speed pump or bypass valve is needed for proper control of the two way control valves at the fan coil units eliminate the overheating the room space. An alternate control valve can be added to the risers of the piping loop to control the fan coil units.

### **Chilled Water System**

A single York centrifugal water cooled chiller of approximately 225 ton capacity serves all the chilled water to the building. The chiller was sized to serve the present building including the shelled space. The estimated block load on the building cooling systems requires 150 tons. The existing chiller is oversized for the connected load. The chiller is presently serviced by Trane Company and reported to be in fair condition, however several tubes are reported to be plugged. The chiller was installed in 1998 and should have 10 or more years of remaining life expectancy. The space where the chiller is installed also contains the elevator equipment, emergency generator and electrical power panels which is a code violation. The current chiller room has a refrigerant monitoring panel and appears to be code compliant.

The chiller is arranged as a constant flow system with a constant temperature of supply water to the building. Chilled water is pumped by a primary (and standby) inline base mounted vertical centrifugal pump. Chilled water is piped to the building fan coil units for cooling the exterior rooms. The system was designed as a constant flow system and may not be operating correctly. The fan coil units are provided with two way control valves and during mild weather the valves should close and reduce flow. There is a means for bypassing chilled water in the piped system by bypassing water in the supply to the return pipe loop. There are no controls and the original drawings do not note any balancing valves. Presently the fan coil unit control valves cannot fully close and the temperature control is manually adjusted by reducing air flow into the room. Otherwise the rooms are overcooled!

#### **Condenser Water System**

A forced draft cooling tower is installed outside the chiller room. It is a BAC Model VTI-220. The unit appears to have been recently installed and it's in good condition. The condenser water is piped to the centrifugal chiller by a primary (and standby) inline base mounted vertical centrifugal pump. Water treatment is provided by a single biocide system and is automatically fed to the condenser water system. The pumps are installed with little or no service space. No problems were evident or noted by the maintenance staff.

#### **Pipe Distribution Systems**

Hot and chilled water supply and return piping consisting of four separate pipes serve the buildings heating and cooling equipment. The piping is located above the ceiling and in continuous wall enclosures along the exterior wall. The piping could not be observed due to limited ceiling access but serves each occupied floor. The piping for the unfinished fourth floor is located on the third floor ceiling space and could easily be altered to serve a proposed finished fourth floor. The age of the piping is unknown and is assumed to have been installed when the fourth floor was added. There are no reports of pipe leakage

#### **Fan Coil Units**

Fan coil units have been installed along the perimeter of the building and serve each individual room. The fan coil units have an outside air intake, 10 % efficiency filter, freezestat, heating and cooling coils, supply fan, fan speed controls and electric two way control valves. The units have a four-pipe distribution system consisting of chilled water supply and return and heating hot water supply and return piping. The electric two way control valves are manufactured by Erie Valve Company and can close off flow to not more than ten pounds differential pressure between supply and return piping. These control valves are reported to not close off during light load conditions and result in overheating or cooling of the rooms.

The outside air intakes on these units create problems during windy conditions and cold weather because the amount of outside air is increased by wind velocities resulting in frequent freezestat tripping. Also these outside air intakes increase space noise and uncomfortable space temperatures. We therefore recommend that an alternate means be provided for ventilation air for these spaces. The ventilation system would also serve the interior space.

#### Interior Rooms, Corridors and Ventilation

The interior corridors do not have any outside ventilation air supplied directly to them. These corridors are exhausted only. They are served with recently installed re-circulating units (ductless split systems) to provide air conditioning. The ductless split systems also provide air conditioning in the corridor for emergency use when the chiller is out of operation and cooling is needed. The re-circulating units also do not provide the filter efficiency required by code. These units should be used for emergency purposes only.

We recommend that a new heat recovery type ventilation system be installed on the roof above the fourth floor shelled space. The building exhaust air can be ducted to this unit and the heat can be reclaimed for tempering the outside ventilation air. The unit will serve the interior spaces and supply air to the corridors and exterior rooms and be supplied at a temperature to satisfy the interior rooms. Hot water and chilled water can be piped to serve this unit. The addition of ventilation air will provide better temperature, odor control and filtration. Also energy costs would be reduced through the use of the energy reclaim system.

#### Kitchen Area

The present kitchen is not furnished with a make up air unit to provide the exhaust quantity needed for the kitchen hood exhaust system. This is a violation of the AIA Guidelines that requires a minimum of 10 air changes of supply air with all air exhausted from the space.

The kitchen hood exhaust ductwork is not 18 gauge welded steel duct and the present exhaust fan does not meet the requirements of NFPA-96. The exhaust and hood system should be replaced with a code complying system. This would include an outside mounted gas fired air makeup air unit to a double wall exhaust hood.

# FIRE PROTECTION SYSTEM EVALUATION

#### Fire Pump

The fire pump was designed to serve the building and provides the necessary supply water to the standpipes and fire sprinkler piping system. The pump is tested and maintained by a sprinkler contractor. No apparent code deficiencies were noted in this observation.

### Sprinkler System

The fire sprinkler system was reviewed. No apparent code violations were observed except the entry vestibule is not sprinkled. A new fire line should be extended from existing piping to provide sprinkler heads in the vestibule.

## **ELECTRICAL SYSTEMS EVALUATION**

#### **Electrical Main Service Switchboard**

The existing main switch board is a 1968 vintage GE 1600 AMP 120/208 volt 3 phase 4 wire and is located in the mechanical room. This switchboard appears to be original and is obsolete. Although this switchboard is functional, replacement in the near future should be considered. Water piping is installed above the switchboard which is prohibited by the National Electric Code.

Most of the panelboards throughout the facility are original equipment and should be considered for replacement in the near future. Some new panelboards, manufactured by Cuttler Hammer have been installed in a few areas.

#### **Emergency Generator System**

The existing emergency generator is manufactured by Onan which appears to be the original generator. The nameplate data indicates a standby rating of 85 KW/106KVA with a continuous rating of 75KW/94KVA. The generator output at 208/120 volt, 3-phase is 295 amps. The emergency generator supports lighting, boilers and miscellaneous equipment throughout the facility. The generator is in need of repair and should be replaced. The working space around the existing generator does not meet the current code.

The emergency system is served via one 400 amp automatic transfer switch manufactured by Onan. The current code requires a minimum of two transfer switches: one two serve the required life safety loads and one for nonessential loads such as the boilers. To meet the current NEC code requirements an additional transfer switch should be added and the "life safety" loads and nonessential loads will need to be separated.

We recommend that a separate room be added to the facility to house a new generator with integral sub-base fuel tank. The room would be sized to include all of the main emergency panels, automatic transfer switches and a separate area for new electrical service distribution equipment. Further evaluation will be required to determine actual size, location and equipment layout of space.

### **Lighting Fixtures**

The overall lighting throughout the building consists of 2' x 4' recessed fluorescent troffers with acrylic diffusers, T-12 lamps and magnetic ballasts. The patient areas consist of ceiling recessed 2' x 4' fluorescent fixtures, fluorescent wall mounted bed light fixtures with direct and indirect lighting, incandescent lighting above the sink mirror and incandescent lighting in the toilet rooms. We recommend that the existing lighting fixtures be replaced with new energy efficient type light fixtures: T-8 or T-5 lamps and electronic ballasts to replace the fluorescent fixtures and compact fluorescent fixture types to replace the recessed incandescent fixtures. Replacement of these fixtures, to meet the current energy codes, will save the owner costs on the electrical utility bills.

Exterior lighting is provided around the parking facility by means of pole mounted light fixtures. Five (5) of the fixtures are shoe box type fixtures mounted to a metal pole. The other five (5) fixtures are a flood light type fixture mounted to a wooden pole. The five (5) fixtures mounted on the wooden poles appear to be the property of the electric utility company (JCPL). The Owner should verify if they are being charged a monthly rate for the operation and maintaining of these fixtures by JCPL. If this is the case, the Owner may consider replacement of these fixtures with there own poles and fixtures and connect to the building electrical service. This would eliminate the additional utility charge for the existing fixtures.

One complaint noted was regarding inadequate lighting levels around the exterior of the building. Additional building mounted wall pack light fixtures could be provided to enhance the light levels around the perimeter of the building. Further evaluation will be required to determine actual fixture type and placement.

# Convenience Receptacles for Rooftop Equipment

The current National Electrical Code requires convenience receptacles to be mounted within 25 feet of rooftop equipment. We recommend that GFCI (ground fault current interrupter) type receptacles with weatherproof enclosures be installed to comply with the current code requirements.

#### Nurse Call System

The nurse call system is manufactured by Jeron Electronic Systems and appears to be in good working order. Emergency call stations are located at the head of the patient beds and in the patient toilet rooms. Indicator lights are located in the corridors above the patient rooms for emergency notification. No complaints were noted pertaining to the system functions.

#### Fire Alarm System

The fire alarm system is manufactured by Notifier, System 5000. The system is an expandable multi-zone microprocessor based control system. The system appears to be installed around 1988 and is functional. No complaints were noted pertaining to the system operation and the system is said to be tested regularly.

Manual pull stations are installed at the egress doors and at the nurses' stations. Audio and visual strobe devices are installed throughout the corridors and in the dayroom areas.

Smoke detectors are located in the patient rooms, dayrooms, corridors and other areas throughout the facility and heat detectors are provided in storage room and other spaces.

Remote zone annunciators are located at the nurses' stations.

In some of the corridors there are remote indicator lights at the ceilings for monitoring some type of concealed detection above the ceiling space (i.e duct detectors). This could not be confirmed due to the inability to access above the ceiling.

## Patient "Wandering Resident" System

The system installed is an Advantage 1000 manufactured by Secure Care Products, Inc. The resident patients are equipped with transmitters. The system base unit, typically installed at exit doors, detects an unauthorized exit and sends an alarm to the nurses' station. The system is utilized to monitor the resident patients wandering throughout the facility in unauthorized areas.

#### Sound System

A sound system rack located in the dayroom area, manufactured by DuKane appears to be in good functional order. No complaints were noted pertaining to the system functions.

#### **Telecommunications System**

The telecommunications headend equipment and wiring throughout the facility has been upgraded in the past two years. Surface raceway is installed in the corridors for the wire management of these cables. No complaints were noted pertaining to the system functions.

#### **Cable Television**

A cable television network is installed throughout the facility. Splitters are located throughout the facility and coax cable extends to the patients bedrooms, dayrooms and other areas. No complaints were noted pertaining to the system functions.

#### **Lightning Protection System**

There is no lightning protection system installed on this facility. The code does not require that a system be installed. The Owner may want to have a risk assessment performed to determine if adding this type of system is cost effective. The Owner may want to contact their insurance carrier to verify if adding this system will reduce their insurance premiums.