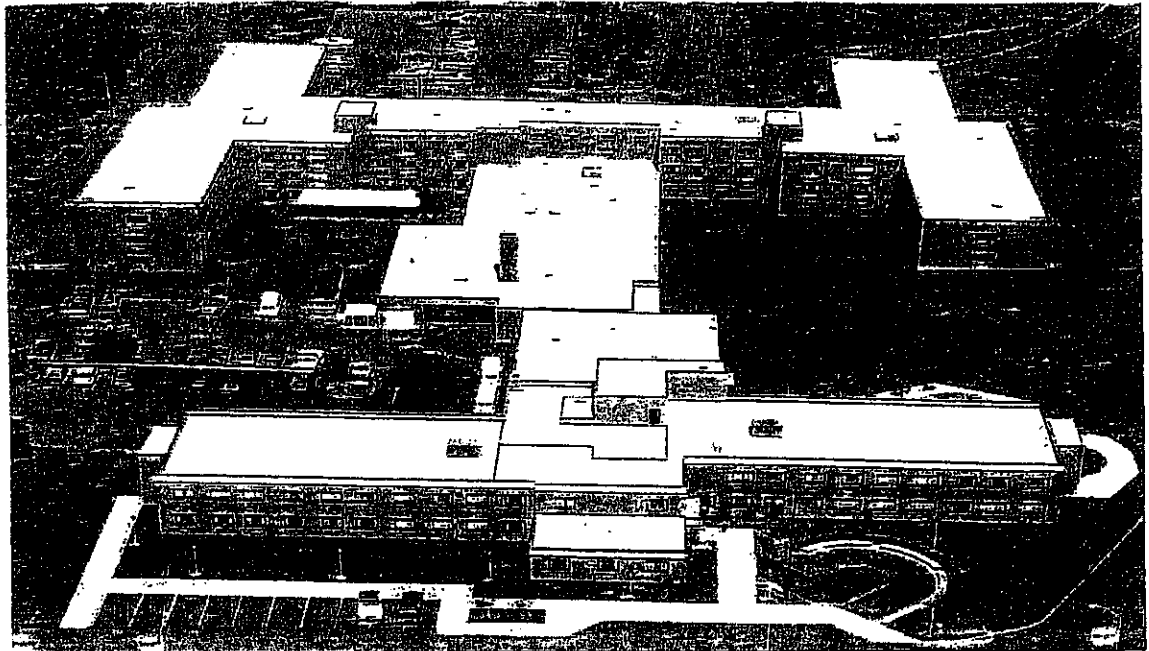


# ***Appendix I***

# GOLDEN HILL HEALTH CARE CENTER KINGSTON, NY

## FACILITY EVALUATION, NEEDS ASSESSMENT AND IDENTIFICATION OF ALTERNATIVES



Golden Hill Health Care Center  
99 Golden Hill Boulevard  
Kingston, NY 12402

J. Paul Vosburgh, Architect PC  
208 Middle Road  
Rhinebeck, NY 12572  
JPV PNO: 015.03.15

©2004 J. Paul Vosburgh, Architect P.C.

## HISTORY

The Golden Hill Health Care Center was constructed in two phases. The Infirmary was constructed in 1969 at a cost of \$3.1M and the Health Related Facility was constructed in 1978 at a cost of \$3.5M. The Facility houses 280 residents and comprises 157,132 square feet.

Recent Capital Improvement Projects include the following:

Dish Room Expansion – 1998 - \$1.55M

Roof Replacement – 2002 - \$1.7M

Chiller/Heat Exchanger Replacement – 2004 - \$240K

## PIPING ISSUES

The first recorded pipe failure occurred in June 1986 or 1987 and pipe failures have continued to occur intermittently over the past 17 years. A complete list of repairs totaling approximately \$405,368 is available upon request.

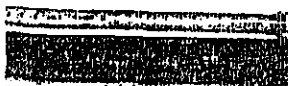
## STEPHENS' STUDY 2002

In 2002, the Facility commissioned a study by Richard R. Stephens, Consulting Engineer that concluded that the water supply and sanitary sewer piping had failed and that replacement was required.



The cast iron sanitary sewer piping has possibly failed due to the use of drain cleaner as part of a regular preventative maintenance program.

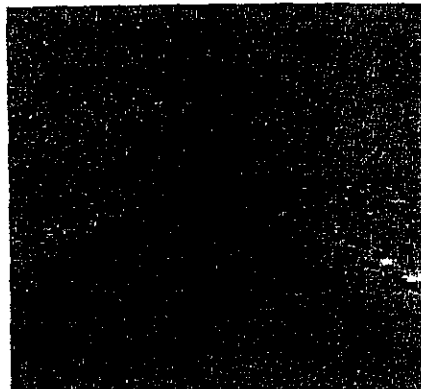
The copper water supply piping has failed due to Microbially Induced corrosion.



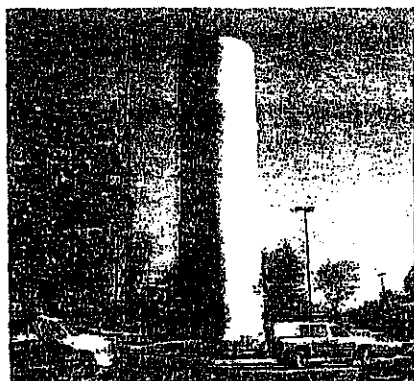


The copper vent piping has failed due to chlorine gas within the sanitary sewer system.

### FACILITY EVALUATION 2004



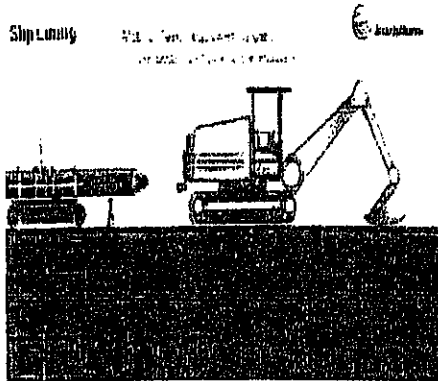
In 2003 the Facility commissioned a Feasibility Study by J. Paul Vosburgh, Architect PC to establish alternative solutions to the piping problems. The failed condition of the sanitary sewer piping was corroborated by J. Paul Vosburgh, Architect PC, utilizing video inspection of the sanitary sewer mains, both inside and outside the Facility. The video inspection discovered several major breaks in the exterior piping and that the pipe bottom was deeply channeled or missing throughout the interior of the Facility.



The failed condition of the water supply piping system was corroborated by David M. Dziewulski, PhD of the NYSDOH on September 9, 2003 and the Wadsworth Laboratory. Dr. Dziewulski recommended replacement of the failed pipe and modifications to the water supply system to prevent or minimize reoccurrence of the same mechanisms once the piping has been replaced. Specific recommendations included inspection of the standpipe and reduction of the time that water is held in the storage tanks to increase oxygen and chlorine residual levels within the potable water.

## ALTERNATIVES TO PIPE REPLACEMENT

The firm of J. Paul Vosburgh, Architect PC and our consultant Excel Engineering, PC investigated alternative technologies as a potential solution to pipe replacement.



On November 14, 2003, we contacted Jack Mulhall of "Insituform", a company specializing in pipe repair. The method used by this company is to install a flexible resin impregnated felt tube into the damaged pipe, expanding it against the inner wall of the existing pipe and curing the tube with heat. Mr. Mulhall informed us that we could not apply "Insituform" technology to 4" or 6" sanitary lines. In order for this technology to be appropriate, access is required at both ends of the pipe, which must be straight without bends or turns.

Excel Engineering, PC also reviewed this technology and determined that there were too many laterals tying into the mains to make this type of solution appropriate or cost effective at the Golden Hill Health Care Center.

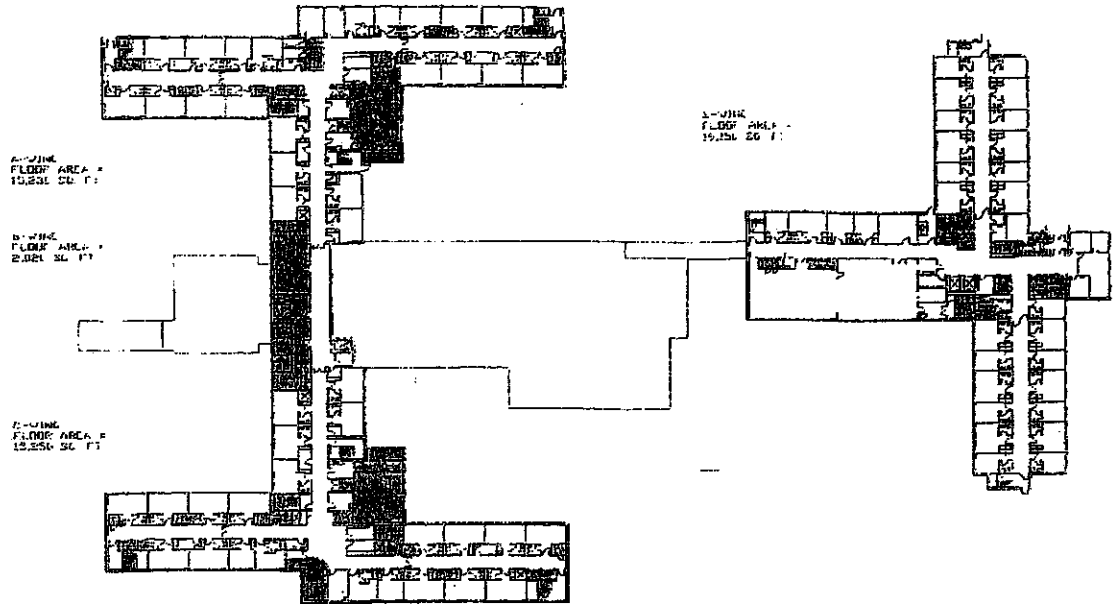


Similarly, we investigated the use of epoxy lining to repair the water supply piping. Based upon the age, condition and extent of deterioration of the existing pipe, we believe that this technology is inappropriate due to the fact that every valve, fitting and fixture would require removal and replacement as part of the process, thus making this option cost prohibitive.

## FACILITY AUDIT RESULTS

A Facility audit indicated that the majority of the physical plant is between 26 and 35 years old and has reached or is nearing the useful life expectancy and requires significant Capital Improvement. Much of the mechanical equipment is between 15 and 25 years old and will require replacement in the near future.

A code compliance review, which assessed compliance with current codes, found that major portions of the existing Facility do not meet the requirements of the current State Hospital Code and the Building Code of NYS, including non-ADA compliant toilet rooms, insufficient toilets, insufficient dining/recreation areas, insufficient resident exam and treatment rooms and non-compliant interior fire doors and resident room doors. Some of the items listed above are included in the current Capital Project Program for the County. Under the current codes, all rehabilitation work shall conform to Appendix K of the Building Code of NYS and Article 700.2 of the State Hospital Code.



A program compliance review, which assessed how current services are provided, indicated that program deficiencies exist in numerous areas, including C-1 vertical transportation, nursing stations, tub/shower rooms, resident coffee shop, soiled linen, inadequate therapy spaces, insufficient storage and a lack of amenities to reduce dependence and provide a home-like atmosphere.

### ALTERNATIVES

Identified are the following alternatives to resolve the problem:

- *Closure*
- *Renovation*
- *Construction*

## CONSIDERATIONS FOR CLOSURE

### PROS

- Eliminate the \$3M County annual subsidy.

### CONS

- Based upon figures published by the NYS Office for the Aging, the senior population (60+) of Ulster County is expected to grow by 34% between 2000 and 2015. There is presently an unmet need of 250 beds in Ulster County based upon the new bed methodology outlined in the NYAHSAs memo dated June 11, 2004.
- Ulster County will still be responsible for Medicaid costs wherever the residents move to. The cost may be greater if the Medicaid rate of the other facility is higher.
- The Golden Hill Health Care Center is the only facility in Ulster County whose population comprises a majority of Medicaid residents.
- NYSDOH has to approve the closure according to prescribed guidelines and timeframes. Physically moving 280 residents from the Facility will not be easy or inexpensive.
- Residents may be placed out of County/State, forcing families to travel a great distance to visit.
- Left over equipment and supplies could be sold at auction but at a considerable loss.
- Existing contracts must be fulfilled.
- Over 400 GHCC employees must be absorbed into the workforce.
- Economic loss to local hospitals and businesses.
- Staffing may be an issue once closure is known.

### CLOSURE COST - \$ UNKNOWN

The projected savings of \$3M/year in the 2003 Ulster County Subsidy will be offset by financial impacts on residents, employees, local businesses and continuing costs of Facility maintenance, security, utilities, etc.

**CONSIDERATIONS FOR RENOVATION**

**PROS**

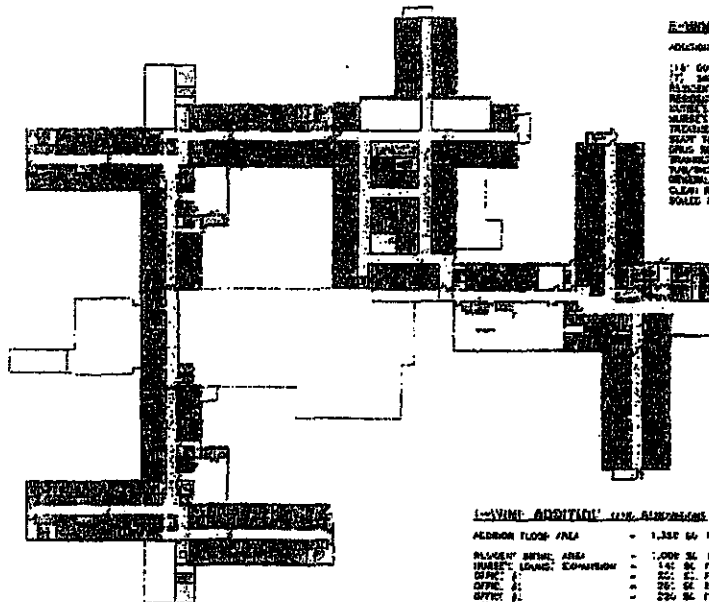
- Lower construction cost than new construction.
- Site acquisition is not required.
- Allows the Facility to remain partially open during renovations.

**CONS**

- Residents and staff are exposed to daily construction activities for 5 years.
- The extended duration has the potential for cost increases.
- There are limited opportunities for programmatic improvements, including privacy, socialization and opportunities to improve the resident's quality of life.
- The renovated Facility is still a 35-year old building. NYSDOH has to approve the renovation under the CAPA Review Process.
- There is a loss of non-reimbursable revenue during renovation.

**A-WING ADDITION**

ADDITION FLOOR AREA	=	1,837	SQ. FT.
RENOVATE EXISTING AREA	=	1,219	SQ. FT.
NURSE'S STATION	=	25	SQ. FT.
STORAGE ROOM	=	110	SQ. FT.
MULTI-PURPOSE ROOM	=	101	SQ. FT.



**E-WING ADDITION**

ADDITION FLOOR AREA	=	15,549	SQ. FT.
114' GARAGE BLDG	=	4,500	SQ. FT.
171' GARAGE BLDG	=	1,524	SQ. FT.
ALLIANCE BLDG. ADDN	=	1,112	SQ. FT.
RENOVATE EXISTING FLOOR	=	1,150	SQ. FT.
NURSE'S STATION	=	400	SQ. FT.
MURKIN LOBBY	=	250	SQ. FT.
TREATMENT ROOM	=	120	SQ. FT.
STAFF REST ROOM	=	75	SQ. FT.
ERIS ROOM	=	80	SQ. FT.
SWIMMING POOL	=	20	SQ. FT.
TRAVELER LODGE	=	210	SQ. FT.
OFFICE	=	100	SQ. FT.
CLEAR ROOM	=	450	SQ. FT.
WALLS	=	340	SQ. FT.

**I-WING ADDITION**

ADDITION FLOOR AREA	=	1,483	SQ. FT.
RENOVATE EXISTING AREA	=	1,219	SQ. FT.
NURSE'S STATION	=	25	SQ. FT.
STORAGE ROOM	=	110	SQ. FT.
MULTI-PURPOSE ROOM	=	101	SQ. FT.

**I-WING ADDITION (NEW ALTERNATIVE)**

ADDITION FLOOR AREA	=	1,355	SQ. FT.
RENOVATE EXISTING AREA	=	1,000	SQ. FT.
TRAVELER LODGE CONSTRUCTION	=	140	SQ. FT.
OFFICE	=	220	SQ. FT.
OFFICE	=	200	SQ. FT.
OFFICE	=	230	SQ. FT.
OFFICE	=	230	SQ. FT.

**RENOVATION CONSTRUCTION COST**

\$43.9M\* for a 280 bed Facility.  
 (Per past history, 75% of the project cost will be reimbursable under the NYS Medicaid Program.)

NOTES: (1) Soft costs are not included, but are expected to include loss of revenue when the wings units will be closed, increase cost of security during construction and possible increased costs of staffing due to program changes.  
 \*(2) NYSDOH is currently revising the Certificate of Need review criteria and the exact reimbursement numbers may change. The extent of changes are expected to



Ulster County Department of Public Works  
GHHCC Facility Evaluation, Needs Assessment and Identification of Alternatives  
JPV PNO.: 015.03.15  
June 30, 2004

be known by October 2004. There is a meeting scheduled for July 6, 2004 between NYSDOH and NYAHSa that may provide further information regarding this issue.

### (3) Rehabilitation of Existing Structures

Section 700.2 State Hospital Code and Building Code of NYS Appendix K, adopted January 1, 2003. Work shall be classified into categories of repair, renovation, alteration and reconstruction.

- Repair is defined as the patching or restoration of existing materials and equipment.
- Renovation is defined as the removal and replacement of existing materials and equipment.
- Alteration is defined as the reconfiguration of any space or any system or installation of any additional equipment.
- Reconstruction is defined as any project where the reconfiguration of space totals more than two-thirds of the building area and involves work not initially intended by the Owner.

The work as defined above, shall comply with the Building Code requirements specified in Appendix K for each type of work.

Ulster County Department of Public Works  
GHHCC Facility Evaluation, Needs Assessment and Identification of Alternatives  
JPV PNO.: 015.03.15  
June 30, 2004

## **Preliminary Construction Cost Renovations & Additions 280 Bed Facility**

### New Construction (Swing Space)

Sitework	815,000.00	
E-Wing 1 <sup>st</sup> Floor	2,080,000.00	
E-Wing 2 <sup>nd</sup> Floor	5,832,000.00	
Subtotal		\$ 8,727,000.00

### Piping/Infrastructure/Code/Program Improvements

Sitework	300,000.00	
Demolition	740,000.00	
Building Envelope	625,000.00	
Interior Gen. Construction	4,514,000.00	
B-1 & C-1 Renovation	3,442,500.00	
Infra/Code/Program Imp.	3,978,000.00	
New Elevator & Upgrades	500,000.00	
HVAC Improvements	3,140,000.00	
Plumbing Replacement	2,664,000.00	
Oxygen Storage	670,000.00	
Electrical Improvements	1,175,100.00	
Subtotal		\$21,748,600.00

Construction Subtotal **\$30,475,600.00**

### Escalation (at 5% per year to mid-point of Construction)

2005	\$31,999,000.00
2006	33,599,000.00
2007 (mid-year)	34,440,000.00

### A/E Fees

8% (5 year project) **\$ 2,438,000.00**

### Construction Management Fees

8% (5 year project) **\$ 2,438,000.00**

### Contingency

15% Construction Contingency **\$ 4,571,000.00**

Total Estimated Construction Cost **\$43,900,000.00**

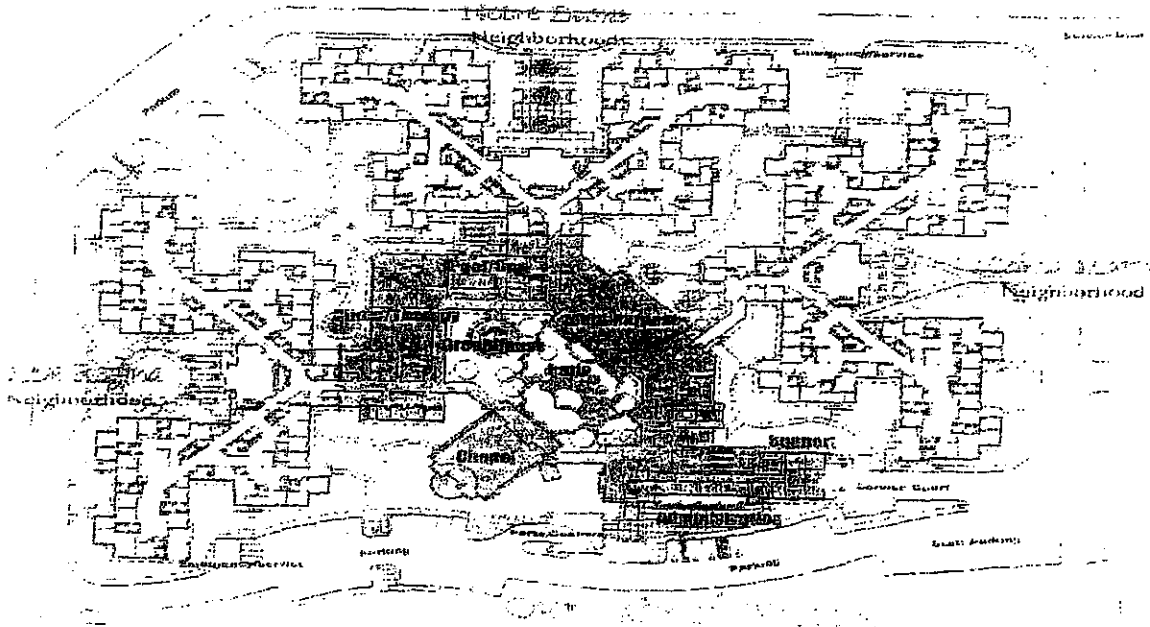
## CONSIDERATIONS FOR NEW CONSTRUCTION

### PROS

- No impact to residents during construction.
- 2-1/2 year construction project vs. 5-year construction project for renovation.
- New Facility with 40-year life expectancy.
- 100% Program and Code Compliance.
- Higher quality of life for residents.

### CONS

- Higher initial cost to taxpayers.



### NEW CONSTRUCTION COST

\$81.3M\* for a 280 Bed Facility.

(Per past history, approximately 50% of the project costs will be reimbursable under the NYS Medicaid Program.)

NOTE: \*NYSDOH is currently revising the Certificate of Need review criteria and the exact reimbursement numbers may change. The extent of changes are expected to be known by October 2004. There is a meeting scheduled for July 6, 2004 between NYSDOH and NYAHS that may provide further information regarding this issue.

**J. Paul Vosburgh, Architect P.C.**

Ulster County Department of Public Works  
GHHCC Facility Evaluation, Needs Assessment and Identification of Alternatives  
JPV PNO.: 015.03.15  
June 30, 2004

**Preliminary Construction Cost  
280 Bed Replacement Facility**

**Building Replacement Alternate**

Site Acquisition	1,200,000.00
Sitework	1,800,000.00
New Construction	56,322,000.00
(280 beds @ 675 SF/bed x \$298/SF)	

Construction Subtotal	\$59,322,000.00
-----------------------	-----------------

**Escalation (at 5% per year to mid-point of Construction)**

2005	\$62,200,000.00
2006	65,310,000.00

**A/E Fees**

6% (2-1/2 year project)	\$3,559,320.00
-------------------------	----------------

**Construction Management Fees**

6% (2-1/2 year project)	\$3,559,320.00
-------------------------	----------------

**Contingency**

15% Construction Contingency	\$ 8,898,300.00
------------------------------	-----------------

<b><u>Total Estimated Construction Cost</u></b>	<b><u>\$81,327,000.00</u></b>
---	-------------------------------

## APPENDIX TO REPORT

- Considerations for Piping Replacement Only

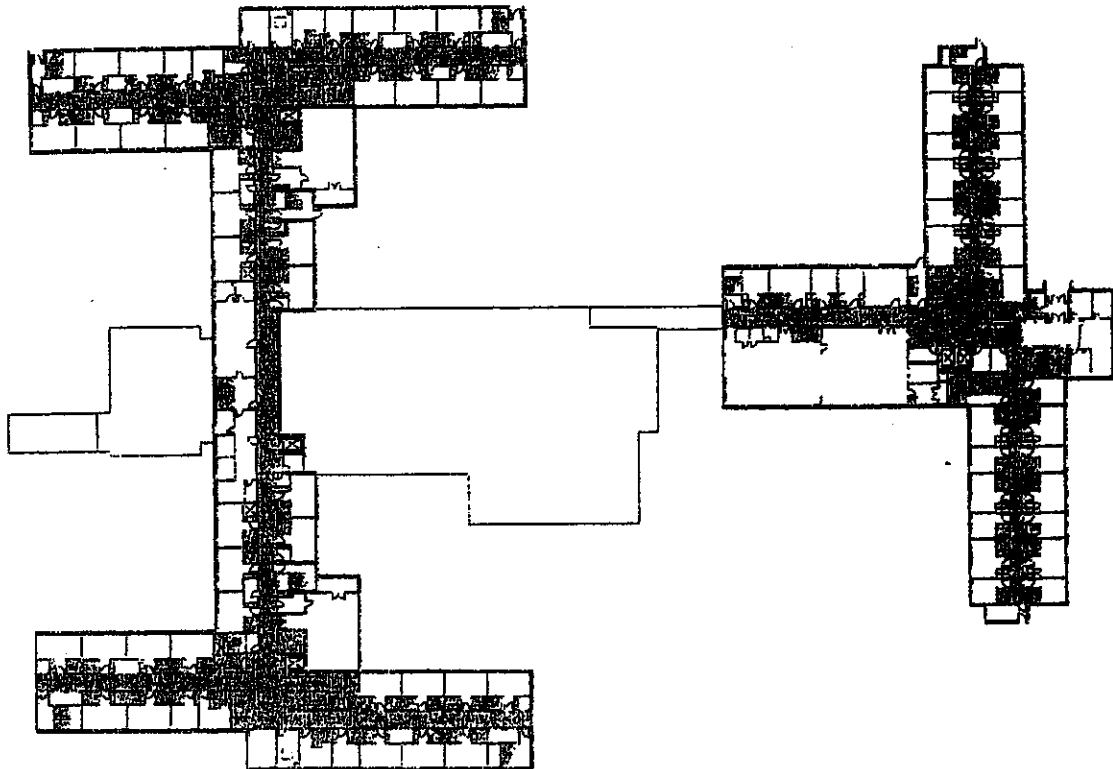
## CONSIDERATIONS FOR PIPING REPLACEMENT ONLY

### PROS

- Lower initial construction cost than renovations and additions.

### CONS

- Facility infrastructure improvements are deferred as future Capital Improvement Projects with increased costs.
- The Facility is not brought up to current codes.
- The Facility does not incorporate any programmatic improvements.



### PIPING REPLACEMENT CONSTRUCTION COST

\$24.4M\* for the existing 280 bed Facility.

(Per past history, approximately 75% of the project cost will be reimbursable under the NYS Medicaid Program.)

NOTES: (1) Soft costs are not included, but are expected to include loss of revenue when the wings/units will be closed, increased cost of security during construction and possible increased costs of staffing due to program changes.

\*(2) NYSDOH is currently revising the Certificate of Need review criteria and the exact reimbursement numbers may change. The extent of changes are expected to be known by October 2004. There is a meeting scheduled for July 6.

**J. Paul Vosburgh, Architect P.C.**

Ulster County Department of Public Works  
GHHCC Facility Evaluation, Needs Assessment and Identification of Alternatives  
JPV PNO.: 015.03.15  
June 30, 2004

2004 between NYSDOH and NYAHSA that may provide further information regarding this issue.

(3) The costs above reflect replacement in kind without reconfiguration of the existing toilet rooms to be ADA compliant. This issue will be part of the NYSDOH CAPA Review Process and the ultimate decision as to the viability of this option rests with the State.

(4) It is possible to implement piping replacement without the construction of "swing space". This method of implementation will involve the loss of revenue for 80-120 residents over a five-year period and the associated layoff of staff.

**J. Paul Vosburgh, Architect P.C.**

Ulster County Department of Public Works  
GHHCC Facility Evaluation, Needs Assessment and Identification of Alternatives  
JPV PNO.: 015.03.15  
June 30, 2004

**Preliminary Construction Cost Piping Replacement**

**280 Bed Facility**

New Construction (Swing Space)

Sitework	815,000.00	
E-Wing 1 <sup>st</sup> Floor	2,080,000.00	
E-Wing 2 <sup>nd</sup> Floor	5,832,000.00	
Subtotal		\$ 8,727,000.00

Piping Replacement Renovations

Demolition	740,000.00	
Sitework	300,000.00	
Interior Gen. Construction	4,514,000.00	
Plumbing	2,664,000.00	
Subtotal		\$ 8,218,000.00
Construction Subtotal		\$16,945,000.00

Escalation (at 5% per year to mid-point of Construction)

2005	\$17,792,250.00
2006	18,681,860.00
2007 (mid-year)	19,148,910.00

A/E Fees

8% (5 year project)	\$ 1,355,600.00
---------------------	-----------------

Construction Management Fees

8% (5 year project)	\$ 1,355,600.00
---------------------	-----------------

Contingency

15% Construction Contingency	\$ 2,541,750.00
------------------------------	-----------------

Total Estimated Construction Cost \$24,401,860.00