

SUNY Oswego - Student Housing Feasibility Study

March 2, 2006



KIDENEY
ARCHITECTS



March 2, 2006

Re: SUNY Oswego
Student Housing
KA No. 2005017.00

Mr. Thomas Simmonds, Director
Division of Facilities Design & Construction
Service Building 20
SUNY Oswego
Oswego, New York 13126

Dear Tom:

Now that our work on the concept study for the proposed new student housing is complete, it's time to formally thank you and all your committee members for the opportunity to work on the Oswego campus. Both Joe and I thoroughly enjoyed the experience, the latitude given us in our work and the collaborative spirit evident by all involved.

Thomas E. Jaeger, AIA
David M. Vanecka, AIA
Glenn A. Pawloski, AIA
Richard F. Dahm, AIA, ACHA

To your question regarding potential opportunities to reduce the project cost, I offer the following as possibilities:

- Clarify further the actual locations, capacities and distances of required site utilities for the project. Currently the estimate for this scope of work is disproportionate to the overall estimate, partially because the preferred site is remote from the remainder of the campus. Perhaps site utilities could be funded separately.
- As conceived, the program areas reflect a new way of thinking about student housing. This includes a higher net area for bedrooms, a higher net-to-gross factor to allow for increased areas for student meeting and interaction spaces, as well as an increased level of amenities within the living units. Perhaps, if acceptable, these could be minimally reduced without an adverse impact to the concept. I would estimate that a reduction of 8 to 10% of the total program area could be achieved without significant impact to the concept. On a 3-building basis, this equates to 9,600 SF +/- of area reduction. Based on the January 9, 2006 estimate, this would reflect a \$1.68 Million savings.



Mr. Thomas Simmonds
SUNY Oswego

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- The exterior of the buildings were envisioned with high quality, low maintenance and durable materials. The intention beyond the practical considerations was to develop a unique architectural solution appropriate to the distinct project site, while looking to complement the other new student housing projects on campus. Consideration could be given to reduction of the level of quality of the exterior materials.
- As planning continues, further study on the potential to mass produce or panelize components of the project off site should be fully reviewed to understand savings opportunities for the labor portion of the construction cost.
- The last suggestion, which will ultimately effect cost, will be to determine how the project will be delivered and financed. Advantages versus disadvantages of an agency-driven, foundation or privately financed project are options worth further review.

Should you or the committee members have questions, please contact me. We will forward, shortly, three copies of the final report with your comments included for your use.

I sincerely hope the project proceeds...and that Kideney Architects will have a role in bringing it to reality.

Respectfully submitted,

A handwritten signature in black ink that reads "Glenn A. Pawloski". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Glenn A. Pawloski, AIA
Executive Vice President
/at

(p.admin.owner.simmonds.3.2.06)



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1. Introduction



SUNY Oswego - Student Housing

Feasibility Study / Introduction

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Program Objectives

In March 2005 Kideney Architects was retained to prepare a feasibility study for the development of on-campus, apartment style student housing.

The Design Team consisted of representatives from:

- SUNY Oswego – Residence Life
- SUNY Oswego – Facilities Services & Facilities Design
- SUNY Oswego – Student Affairs
- Kideney Architects

The Consultant Team, directed by Kideney Architects, included:

- Kideney Architects Programming, Planning & Architecture
- R & W Engineering Building MEP Systems
- Baer & Associates Cost Estimating

The scope of the study included the evaluation of several possible sites on campus for the apartments, and a site selection recommendation for further development. The site selection process considered proximity to the campus, pedestrian and vehicular access and potential parking, views of the site and from the site, and delineation of existing wetlands.

In response to a request of campus representatives, a “building type” study was conducted which presented a photo collage of images of recent student and multifamily housing projects from across the country. A wide variety of styles was discussed to express the “state of the art” of apartment style student housing, and to determine campus preferences with respect to style, material selection and scale.

An architectural / space program was developed to identify required spaces, anticipated activities and relationships. The program was revised to include input from a student focus group. At the outset of the study, the proposed capacity of housing was envisioned to be 100 beds in an initial phase, expandable to 200 beds. The proposed site plan concept drawing currently indicates a capacity of 192 beds initially, expandable to approximately 256 beds.

Conceptual plan options for development of the site and buildings were prepared, and corresponding three-dimensional images developed to express the massing configuration of each option. Programming documents, planning and design options have been developed in consensus agreement with campus representatives. A review of building code requirements, descriptions of proposed building systems, budget estimates and other supporting design information follow and form the basis of this document.

2. Facility Program



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Feasibility Study / Evolution of the Program

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Evolution of the Program

Often, the initial conception of what a project is to become evolves and changes as it is discussed in programming meetings. When the process works properly, the evolution makes the program more practical and a better match to the needs and expectations of the future occupants. Following the first programming meeting in April, 2005, a preliminary architectural / space program was developed to identify required spaces. The program was subsequently revised to include input from a student focus group and detailed comments from SUNY Oswego Residence Life. The following are key features or issues which changed significantly during the development of the program:

- *Initially, student bedrooms were planned at approximately 120 nsf. per room, and were intended to accommodate "single" or "twin" sized beds.*
 - The final program is based on 175 nsf. bedrooms which are intended to accommodate "full" or "double" sized beds.
- *Initially, student apartments were anticipated to be a mix of 4-bedroom and 6-bedroom units. A 4-bedroom unit was to be approximately 1260 nsf. and a 6-bedroom unit was to be approximately 1600 nsf.*
 - In the final program, all units are 4-bedroom apartments, approximately 1510 nsf. in area.
- *Initially, campus representatives expressed a preference for single bedrooms, but acknowledged a mix of sizes, including a small percentage of double rooms, may be appropriate.*
 - At the focus group meeting, students expressed that a primary reason for moving to apartment style housing was to "get your own room". In the final program and in the preliminary plan concepts, all bedrooms are single rooms.
- *Initially, the project was envisioned to be constructed in two phases. The first phase was to include 100 beds and be planned for expansion to include an additional 100 beds in a future phase.*
 - SUNY Oswego Residence Life feels the initial construction should be approximately 200 beds; two phases of 100 beds each seems too small to address the immediate demand.

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Feasibility Study / Preliminary Space Program

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1/3/2006

16 Unit Building (2-story)

Item	Description	Qty	Proposed Area	Proposed Total	Remarks
1	4-Bed Unit	16	1510	24160	
2	Study Lounge	2	240	480	1 study lounge per 8 units
3	Laundry Area	4	140	560	1 laundry area per 4 units / or include within units
4	Multipurpose Meeting / Recreation Room	1	480	480	include kitchenette & unisex / accessible toilet room
5	Vending Area	1	120	120	locate within multipurpose area
6	Bike Storage	1	120	120	indoors, within public space
Subtotal NSF				25,920	
Net-to-Gross Factor @ 25%				6,480	

16 Unit Building, say **32,400** nsf

Typical 4-Bed Unit

Item	Description	Qty	Proposed Area	Proposed Total	Remarks
1	Single Bed Rooms	4	175	700	includes closet space
2	Living Room / Dining	1	280	280	dining counter between kitchen & living room
3	Kitchen	1	125	125	
4	Bathroom	2	65	130	all units adaptable, confirm # fully-accessible units @ 1st floor
5	Laundry or Storage	1	40	40	discuss laundry in units / or in common area
6	Coat Closet	1	15	15	
7	Linen Closet	1	15	15	
8	Mech / Elec / HW	1	60	60	access from corridor
Subtotal NSF				1,365	
Internal Circulation Factor @ 10%				140	

4-Bed Unit, say **1,510** nsf

Resident Director

Item	Description	Qty	Proposed Area	Proposed Total	Remarks
1	Mail Area	1	160	160	provide spare mailboxes
2	RD Office	1	150	150	access from apartment and from corridor
3	RD Apartment	1	1060	1060	2 bedrooms, separate external entry if possible
Subtotal NSF				1,370	
Circulation Factor @ 10%				140	

Resident Director, say **1,510** nsf





Code Review / Design Parameters

The following code review outline is a summary of requirements, based on the **Building Code of New York State (IBC) 2002**, as interpreted by Kideney Architects. The outline begins with a basic description of anticipated conditions, which set the parameters for interpretation of the Code (i.e., occupancy type, construction type, building height and basic floor areas). The outline goes on to identify the requirements for a newly constructed building of this occupancy and construction type. General code requirements relating to space, fire safety, exiting and other issues are identified.

1. Applicable Codes:

- Building Code of New York State (IBC) 2002
- ICC/ANSI A117.1

2. Use and Occupancy Classification:

- R2 - Residential Occupancy (Apartments) – Typical apartment will include four single student rooms, two shared toilet rooms, kitchen and living room / dining space.

3. Construction Classification:

For all new construction areas, the construction type is proposed be Type IIB, non-combustible, with the following fire resistance rating requirements (Table 601 & 602):

- | | |
|---|--------|
| • Structural frame (columns, girders, trusses) | 0-hour |
| • Exterior nonbearing walls (< 30' distance separation) | 0-hour |
| • Exterior nonbearing walls (> 30' distance separation) | 0-hour |
| • Floor construction (beams and joists) | 0-hour |
| • Roof construction (beams and joists) | 0-hour |

4. Height and Fire Area / Allowable Increases:

Occupancy	Stories Allowed	Height Allowed	Allowable Area
R2	4	55'	16,000 sf

(Table 503)

- Area Modification due to sprinklers: 200% increase permitted for multistory buildings. (506.3)
- Using allowable basic fire area above and the allowable area increases for sprinkler installation, the adjusted allowable fire area is 48,000 sf per floor. Since this area exceeds even the largest proposed floor area, each floor will act as a single fire area (no fire walls); appropriate fire barriers will be provided as required for shafts, corridors, stair enclosures, high hazard areas, etc.



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5. Occupant Load:

Preliminary occupant load calculation is based on assumed program of eight units per floor / two floors. Each floor is proposed to include eight 4-bed units (1510 nsf); one building may include a resident manager apartment and office suite which would occupy a similar footprint to the typical apartment unit (1510 nsf). The program is also proposed to include a small compliment of common spaces (laundry spaces, study lounges and a multipurpose recreation room). For the purposes of the occupant load calculation a 25% net to gross is assumed.

- First Floor
R2 Residential (apartments) 16,800 sf/200 = 84 persons
- Second Floor
R2 Residential (apartments) 15,700 sf/200 = 79 persons

6. Means of Egress:

- Egress width, stairs = 0.2" per occupant but not less than 44" (1003.2.3 & 1003.3.3.1)
- Egress width, corridors = 0.15" per occupant but not less than 44" (1003.2.3 & 1004.3.2.2)
- Number of exits: 2 exits min. for every floor area with <500 occupants. (1005)
- Required exits at First Floor:
R2 Occupancy: 84 persons x 0.15" = 13" egress width, 44" min. required.
Number of exits to be provided: not less than 2 exits @ 44" width min. (1004 & 1005)
- Capacity required at Second Floor exit stairs:
R2 Occupancy: 79 persons x 0.2" = 16" egress width, 44" min. required.
Number of exits to be provided: not less than 2 exit stairs @ 44" width min. recommended (1003 & 1005, exception 1003.3.3.1 permits a stair serving less than 50 occupants to be 36" in width, however 44" is recommended.)
- Stair design to be based on 7" riser max. and 11" tread min.
- Accessible Means of Egress:
Accessible spaces must be provided a minimum of one accessible means of egress. If the accessible space requires more than one exit, provide two accessible means of egress (1003.2.13) Because the building is to be fully sprinklered, Areas of Refuge are not required. (1003.13.2.2, exception 2)
- Exit Access:
Travel distance for exit access: 250' max. (1004.2.4)

Common path of egress travel: 75' max. (1004.2.5)

Dead End Corridor: 20' max. (1004.3.2.3)

Corridor width: 44" min., 36" permitted within dwelling unit. (1004.3.2.2)

Exit access doors: provide two exits from any space with an occupant load exceeding 50 persons. (1004)



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- Provide 2 exits from boiler / furnace rooms >500 sf, and provide 2 exits from refrigeration equipment rooms >1000 sf. (1007)
- Because the building is to be fully sprinklered, emergency escape & rescue windows are not required. (1009)

7. Fire Rated Construction:

- Firewalls - none required due to compliance with allowable areas. (705)
- Fire Barrier - required for vertical exit enclosures & exit corridors:
 - Exit stairwell enclosure, 2-hour fire barrier required (SUCF)
 - Exit corridor enclosure, 1-hour fire barrier required (SUCF)
- Fire Barrier – required at incidental use areas (furnace & boiler rooms, refrigerant equip., laundry, storage, waste rooms, etc.) 1-hour rated fire barrier required. (Table 302.1)
- Fire Barrier – required at shafts, 2-hour rated fire barrier required. (707)
- Fire Partitions - 1-hour rated fire partition required between sleeping accommodations. (708.1)
- Opening Protectives – B-label at 2-hour wall, C-label at 1-hour wall. (714)
- Note: if an elevator is provided, fire-rated elevator lobby enclosure is not required (707.14.1, exception 4)

8. Fire Protection:

- Building required to be fully sprinklered due to occupancy type, and due to height and area modifications elected. (506.3 & 903.2)
- Standpipe system not required, unless the highest story is more than 30' above the lowest level of fire department access. (905.3.1)
- If an elevator is provided, smoke vents required at elevator shaft at 3.5% of floor area - but not less than 3 sf per car (910.2.3 & 3004) Note: due to sprinkler installation, smoke vents shall be automatic operation, with sprinkler flow triggering alarm and vents.
- Automatic fire alarm system required (R2 occupancies, 907.2.1 & 907.2.9), manual alarm boxes not required where sprinkler flow triggers alarm.
- Fire detection system with smoke-detecting alarm required for R2 occupancy (907.2.9.1 & 907.2.10.1.2).
- Portable fire extinguishers required, 75' max. travel distance to extinguisher (906).

9. Interior Finishes

- Interior finishes: not less than Class B, flame spread 26 – 75, smoke developed 0 – 450. (803)



10. Plumbing Fixture Requirements

Residential Occupancy:

- R2 occupancy: Apartments (minimum requirements):
 - 1 water closet per dwelling unit (will provide 2 W.C. per unit)
 - 1 lavatory per dwelling unit (will provide 2 lavatories per unit)
 - 1 kitchen sink per dwelling unit
 - 1 bath tub or shower per dwelling unit (will provide 2 showers per unit)
 - 1 automatic clothes washer connection per 20 dwelling units
- Drinking fountain – not required

11. Accessibility

The proposed building is required to be fully accessible to persons who are physically handicapped in accordance with the requirements of the Building Code of New York State, ICC/ANSI A117.1 – 1998, and the ADA Accessibility Guidelines.

- Accessible routes shall be provided within the site, and not less than 50% of public entrances shall be accessible. At least one accessible route shall connect accessible entrances with accessible spaces and elements. (1104 & 1105)
- Where parking is provided, accessible spaces in conformance with ICC/ANSI A117.1 shall be provided, including 8' wide access aisles. 2% of parking capacity, but not less than one space, shall be accessible. (1106)
- For R2 occupancies, Type "A" (fully accessible units) are not required, however, if elevator service is provided to the building, all sleeping units must be Type "B" (adaptable units) in accordance with NYS 1107 & ICC/ANSI A117.1. If elevator service is not provided to the building, all sleeping units at the level of an accessible entrance must be Type "B" (adaptable units).
- Passenger elevators, if provided, shall be accessible and comply with NYS 3001.3 & ICC/ANSI A117.1.
- Where fixed or built-in storage cabinets, closets, med. cabinets, etc. are provided, one of each type must comply with ICC/ANSI A117.1. (1109.8)
- Controls, hardware and operating mechanisms shall be accessible (1109.13)
- Signage identifying accessible elements, and directional signage to accessible elements shall be provided per NYS 1110.

12. NYS Energy Conservation Construction Code

- Design conditions (Climate Zone 14a):
 - Winter design dry-bulb: 2⁰ / Summer design dry-bulb: 85⁰
 - Degree days: 6747
- Building envelope requirements (Table 802.2(5) :
(Window area to be > 10%, but < 25% of wall area)
 - Skylights U= 0.8
 - Slab edge/below grade wall R-8
 - Windows & glass doors SHGC= 0.5, U= 0.6
 - Roof (conc. slab or deck) continuous insul. R-19 (R-20, for metal joist)
 - Floor over outdoor air - continuous insul. R-19
 - Above grade walls (masonry/no framing) R-5 continuous min.

3. Site Analysis



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Site Analysis

Two sites were considered for possible development of on-campus, apartment-style student housing. Site 1 is the wooded area to the south of Glimmerglass Lagoon. Site 2 is the wooded and open area at the north edge of the Hidden Fields. The site analysis drawing depicts pedestrian and vehicular traffic routes in the vicinity of the sites, potential views, solar path / angles, winter and summer wind directions, wetlands delineation, topography and other orienting features of the sites. There was general agreement by campus representatives that Site 1 is the easier site to develop, and is the preferred site based on closer proximity to the Campus, easier pedestrian and vehicular access, less intrusion and impact by wetlands.

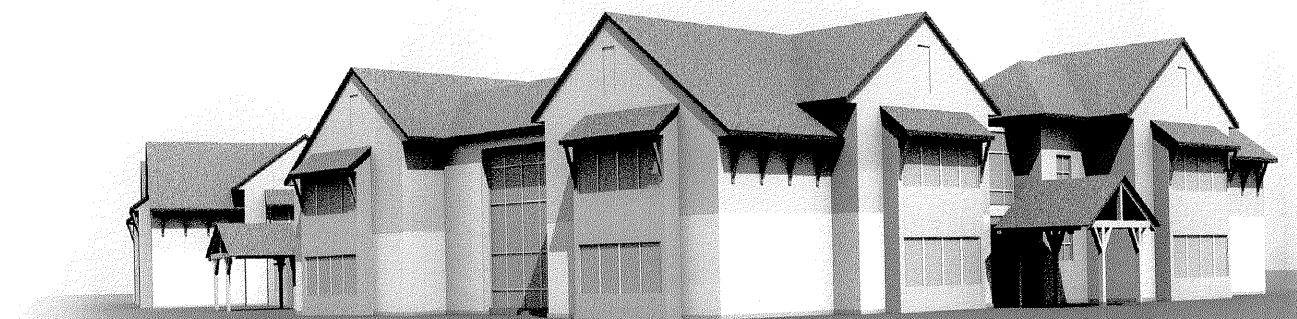
- Site Option 1A - located at the Glimmerglass site, represents 2-story buildings comprised of four 4-bedroom units each floor. The total capacity of the six buildings shown is 192 beds. The buildings are arranged in an arc focusing on Glimmerglass Lagoon. Parking is illustrated as six smaller, decentralized lots of approximately 34 spaces each. Vehicular access to the street is provided at two locations. If the Glimmerglass site is selected as the site for development, the Campus requested that a strong pedestrian connection to the Pathfinder Dining Hall should be included. This is the site concept which was developed in more detail in subsequent drawings; all other options which follow were eliminated from consideration.
- Site Option 1B - located at the Glimmerglass site, represents 2-story buildings comprised of four 4-bedroom units each floor. The total capacity of the six buildings shown is 192 beds. The buildings are arranged similarly to Option 1A except that they are more inwardly focused on a central public open space which opens towards Glimmerglass Lagoon. Parking is illustrated as six smaller, decentralized lots of approximately 34 spaces each. Vehicular access to the street is provided at two locations, but is not a continuous loop; this configuration would require a turn-around loop at the inboard end of each group of parking areas.
- Site Option 2A - located at the Hidden Fields site, represents a more centralized approach with larger scale, 2-story buildings comprised of twelve 4-bedroom units each floor. The total capacity of the two buildings shown is 192 beds. The buildings face the Hidden Fields from the north end of the site; one building is sited at the edge of an area of steeper terrain to take advantage of the view of the natural area to the northwest. Parking is illustrated as four, decentralized lots of approximately 50 spaces each. Vehicular access to the street is provided at a single location; this configuration would require a turn-around loop at the inboard end of the group of parking areas.
- Site Option 2B - located at the Hidden Fields site, represents 2-story buildings comprised of six 4-bedroom units each floor. The total capacity of the four buildings shown is 192 beds. The buildings are arranged in an arc oriented towards the Hidden Fields. Parking is illustrated as four, decentralized lots of approximately 50 spaces each. Vehicular access to the street is provided at a single location; this configuration would require a turn-around loop at the inboard end of the group of parking areas.



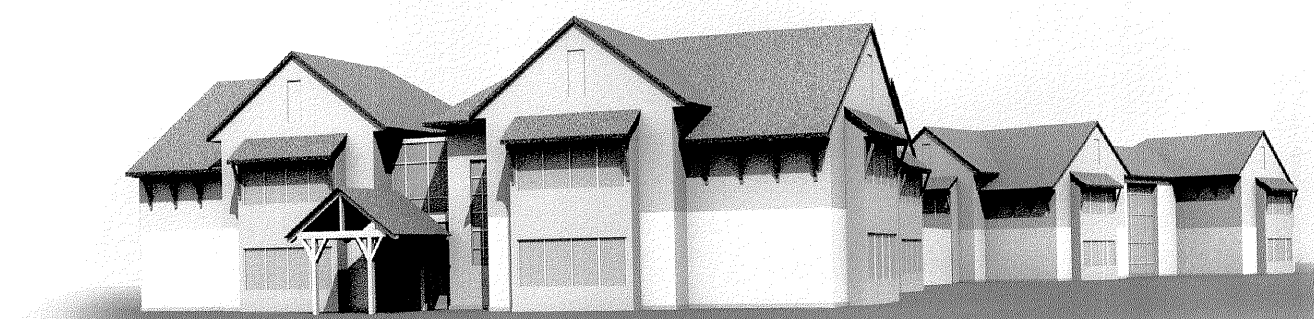
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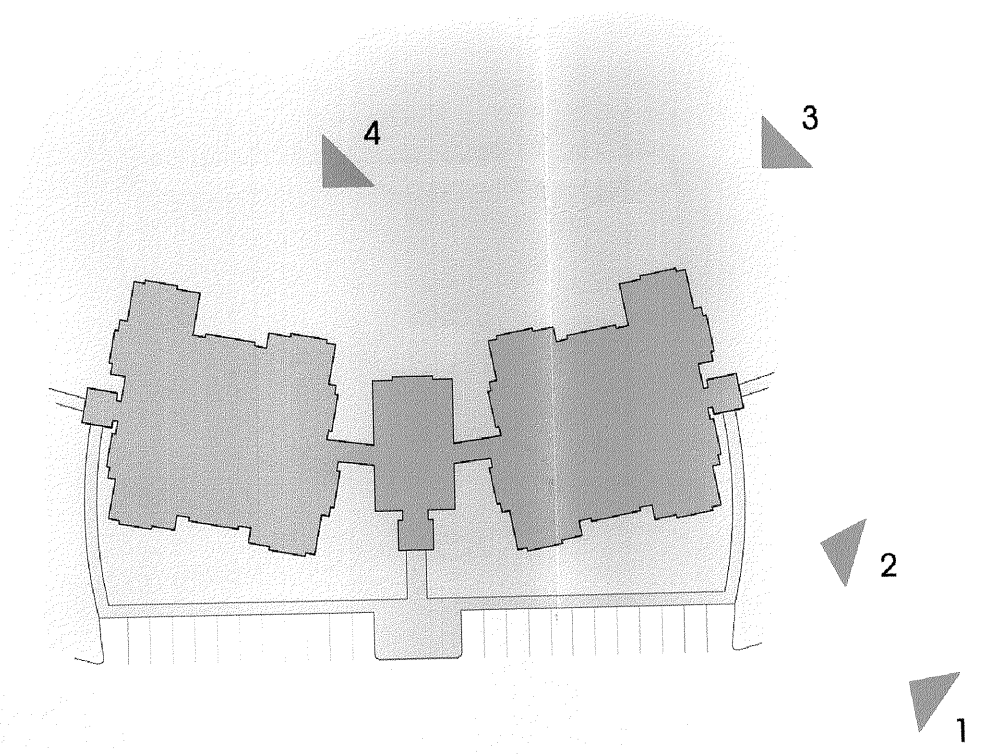
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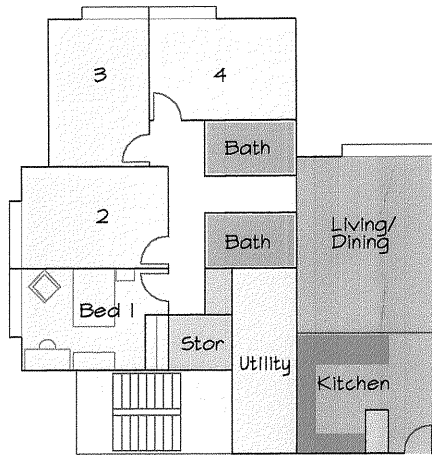


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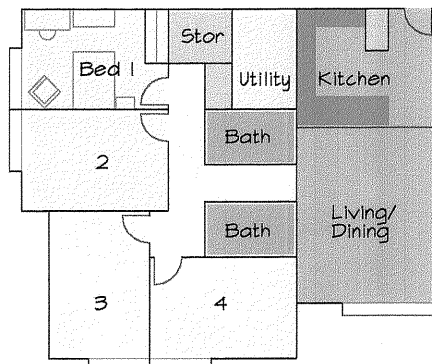


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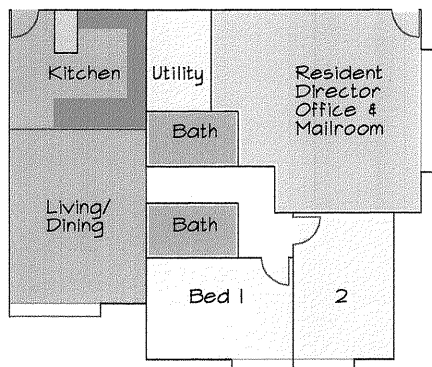




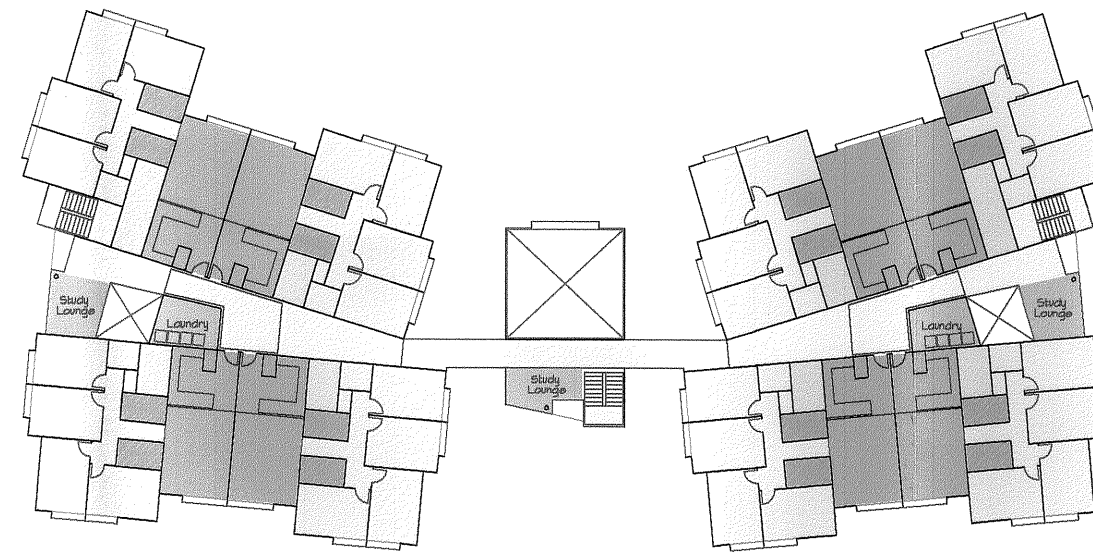
Unit Type 2



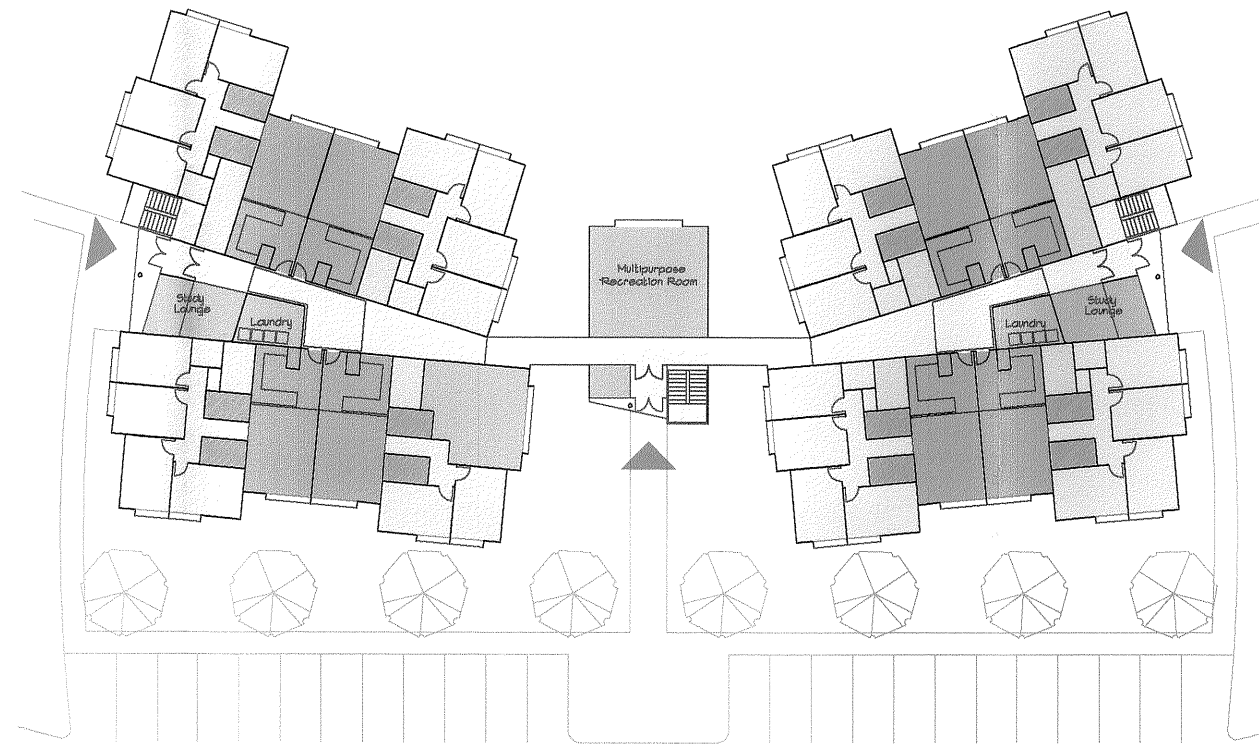
Unit Type 1



Resident Director Unit



2nd Floor Plan

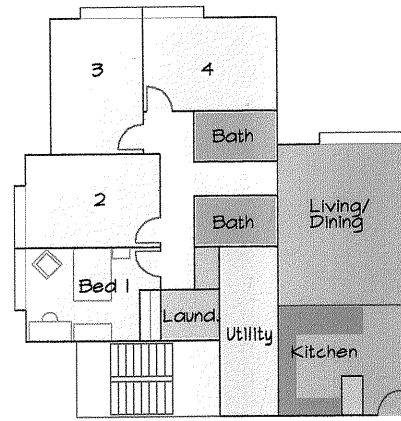


1st Floor Plan

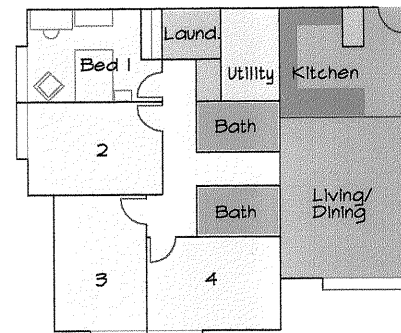
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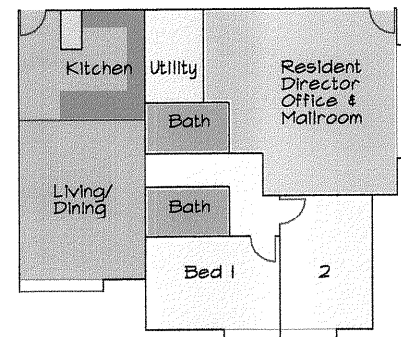
- Living, Dining, Kitchen
- ▨ Bedrooms
- Bath Rooms
- Resident Director Office & Mailroom
- Communal Spaces (Study Lounges, Laundry & Recreation Room)
- Utility Space



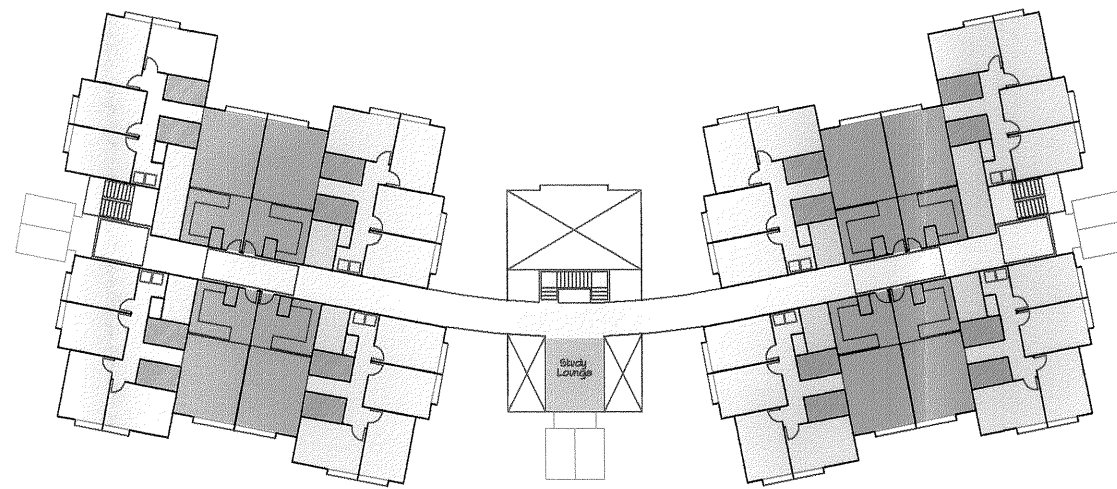
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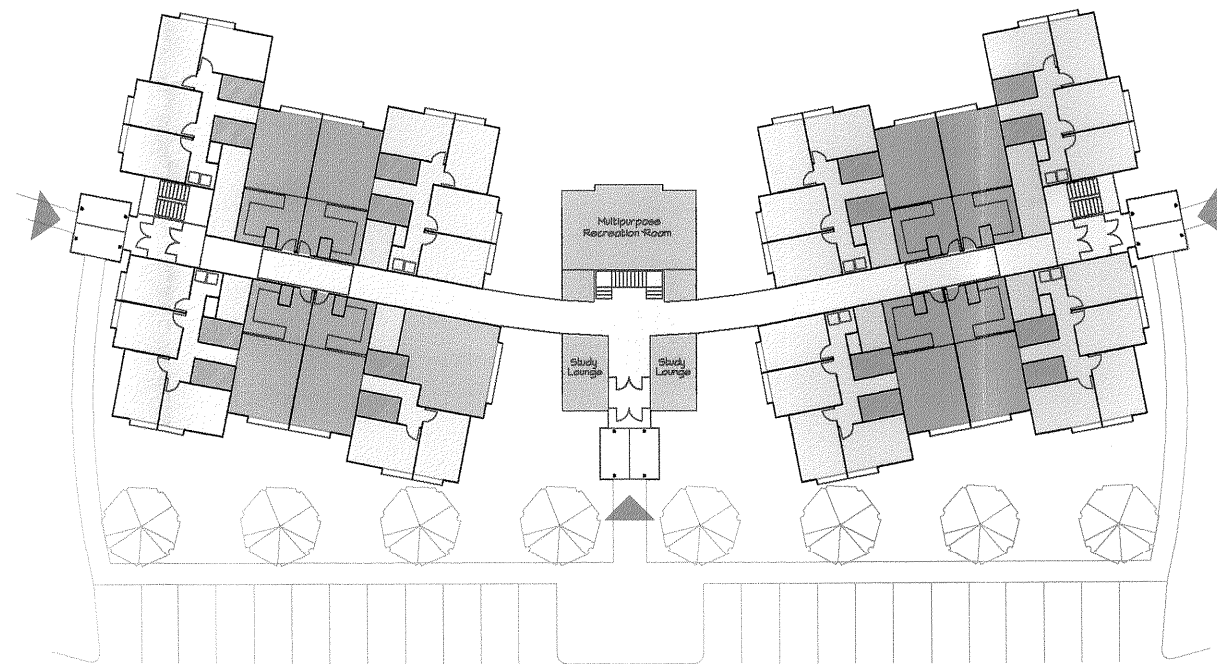
Unit Type 1



Resident Director Unit



2nd Floor Plan

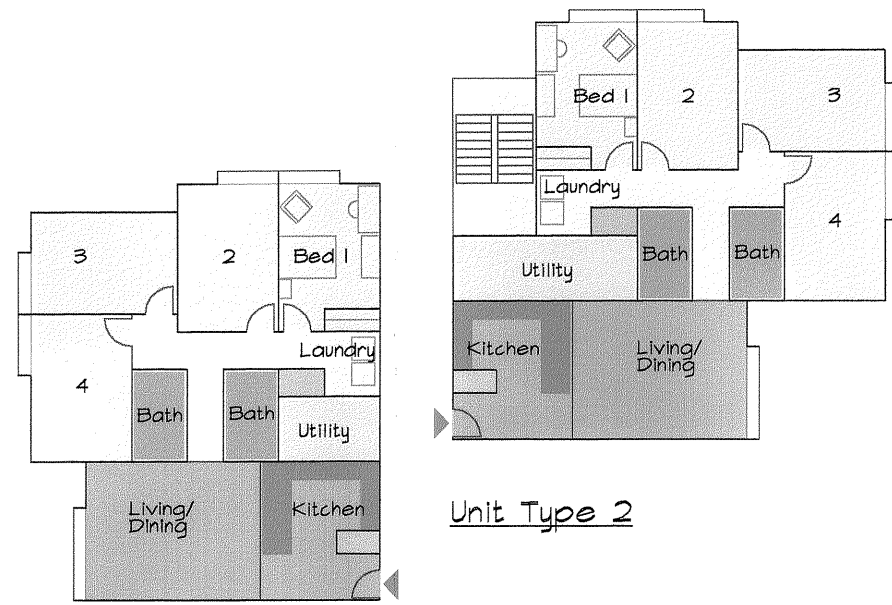


1st Floor Plan

0 8 16 32 ft

Key:

- Living, Dining, Kitchen
- ▨ Bedrooms
- Bath Rooms
- Resident Director Office & Mailroom
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- ▨ Utility Space

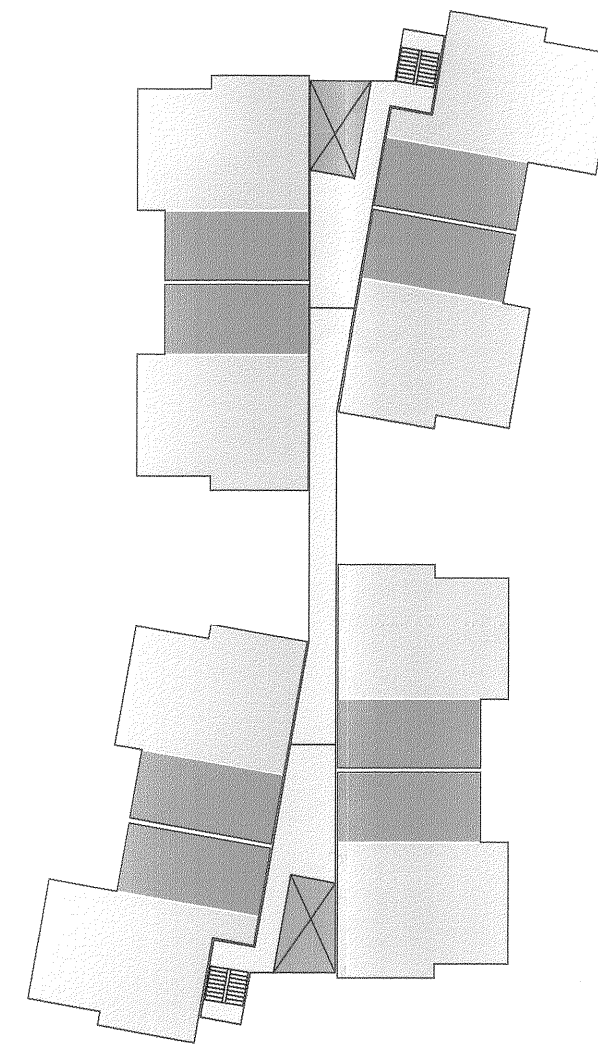
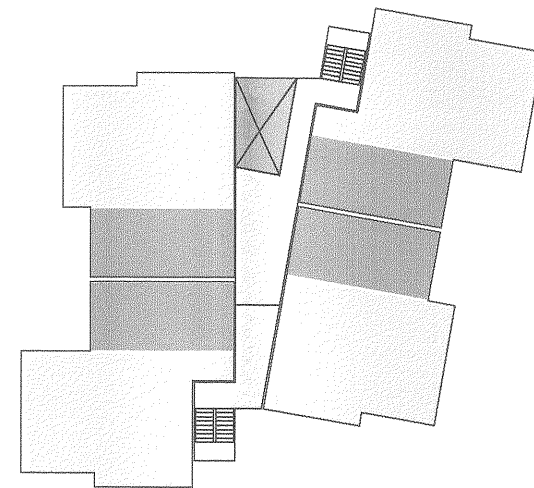
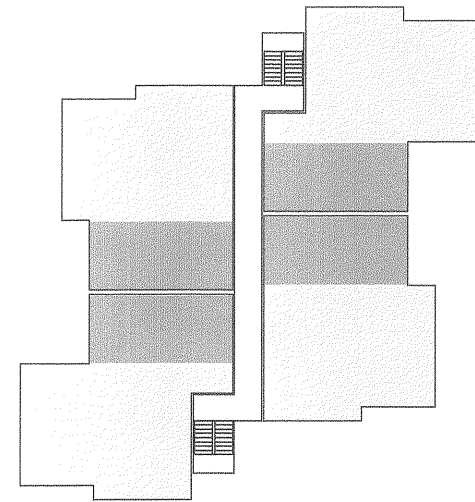


Unit Type 1

Unit Type 2

Space Program - Typical 4-Bed Unit

	Qty.	Area	Total
Single Bedrooms	4	175	700
Living Room / Dining	1	280	280
Kitchen	1	125	125
Bathroom	2	65	130
Storage	1	40	40
Coat Closet	1	15	15
Linen Closet	1	15	15
Mech / Elec / HW	1	60	60
Subtotal NSF			1365
Internal Circulation Factor @ 10%			140
Total (4-Bed Unit)			1510 nsf

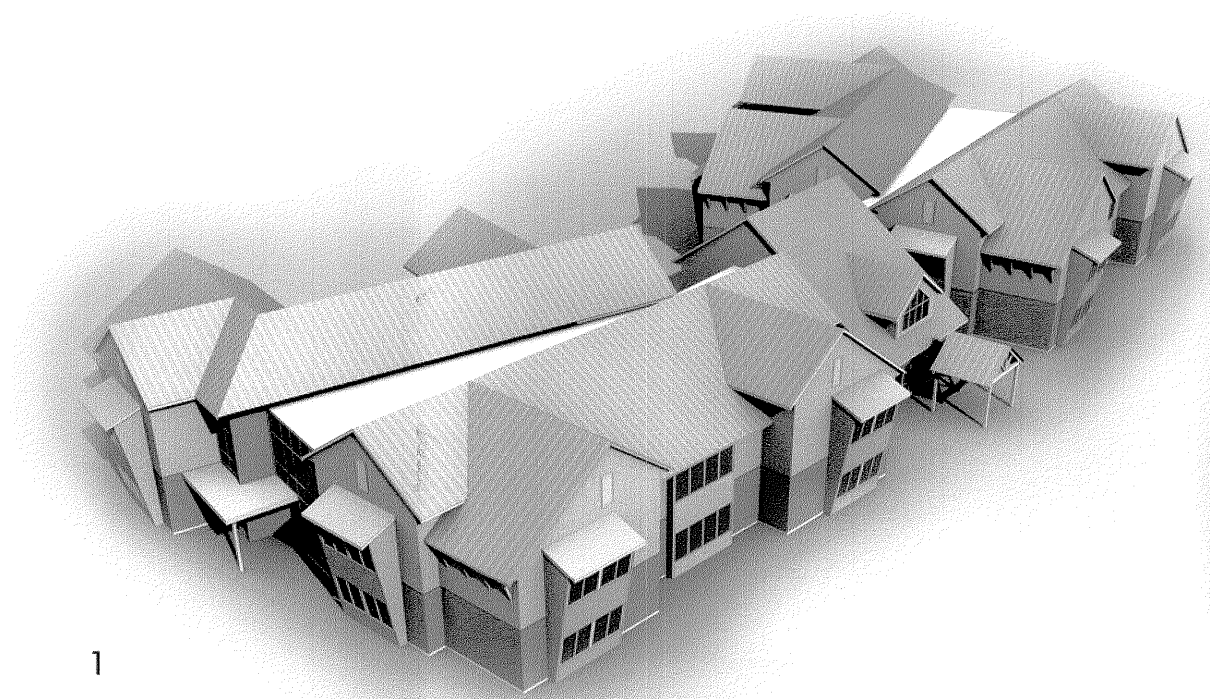


- Key:
- Public (Living, Dining, Kitchen)
 - Private (Bedrooms, Bathrooms)
 - Circulation
 - Communal Spces (Study / Recreation)









1



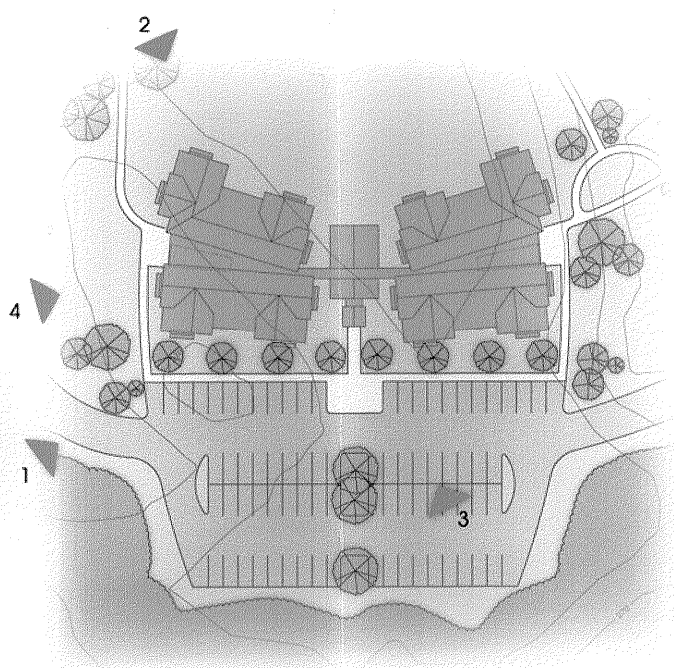
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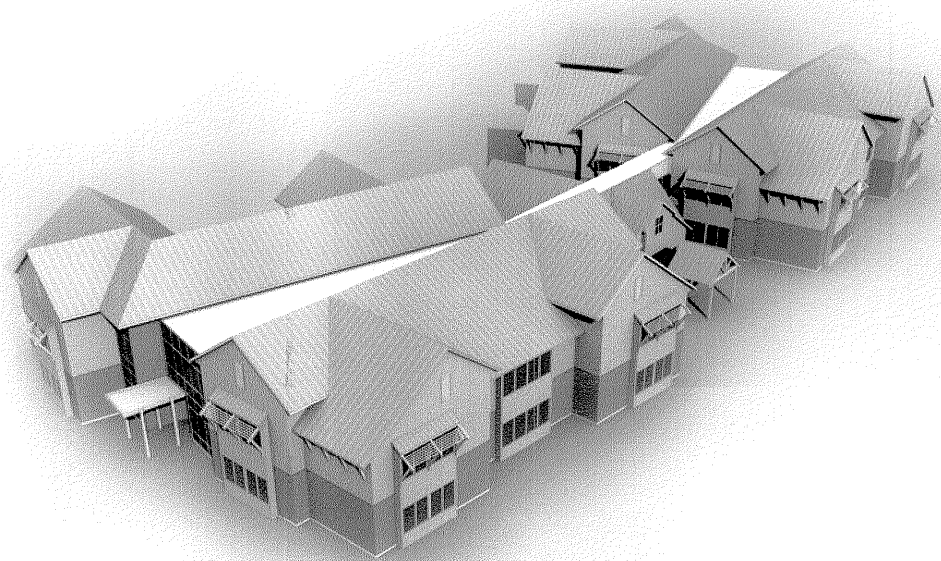


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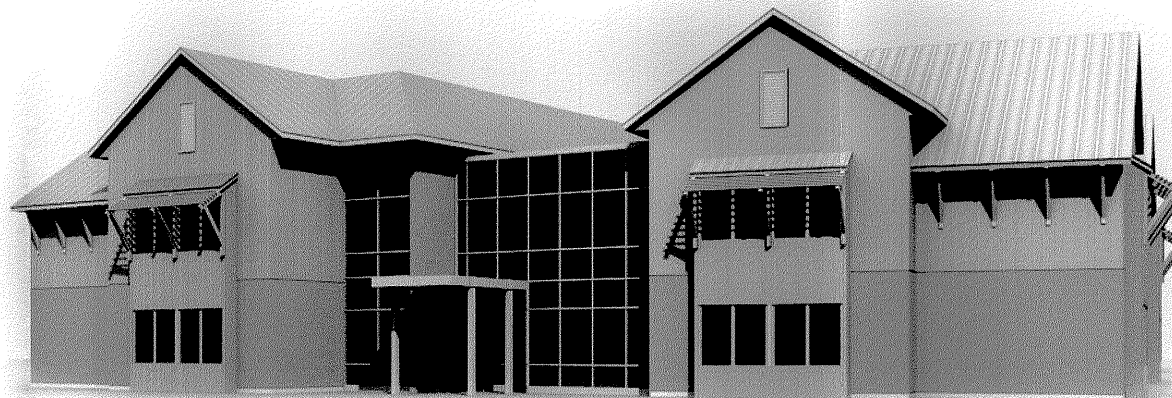


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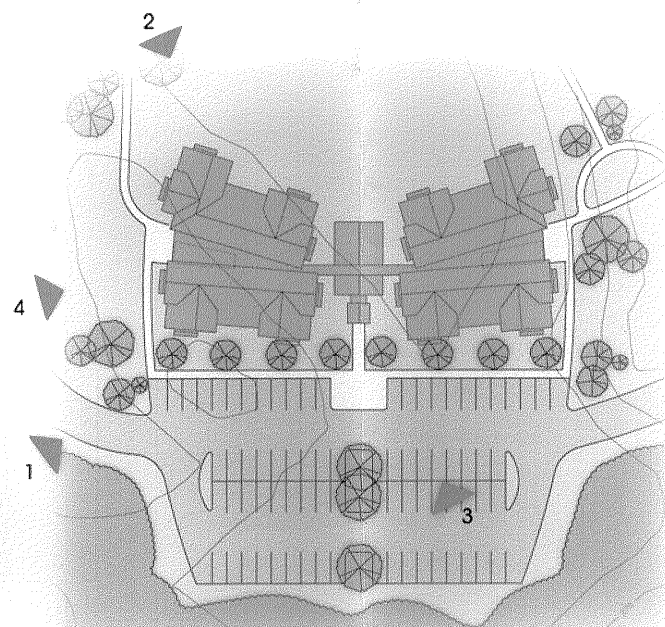
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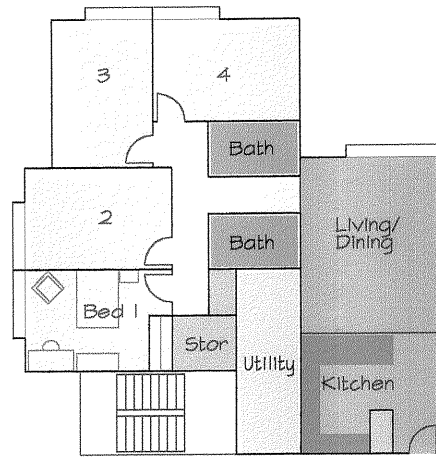


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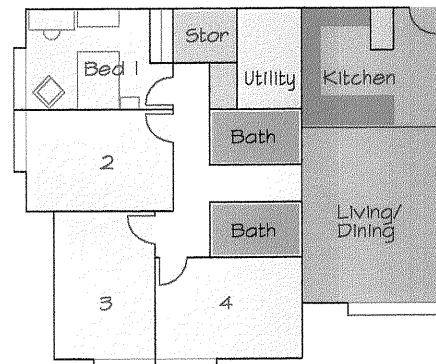


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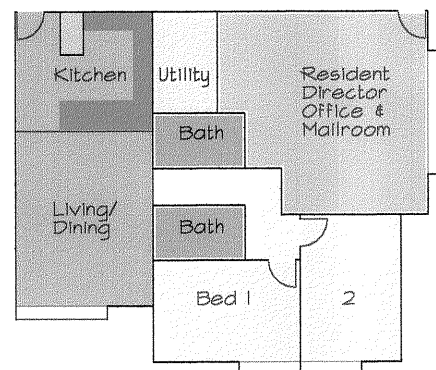




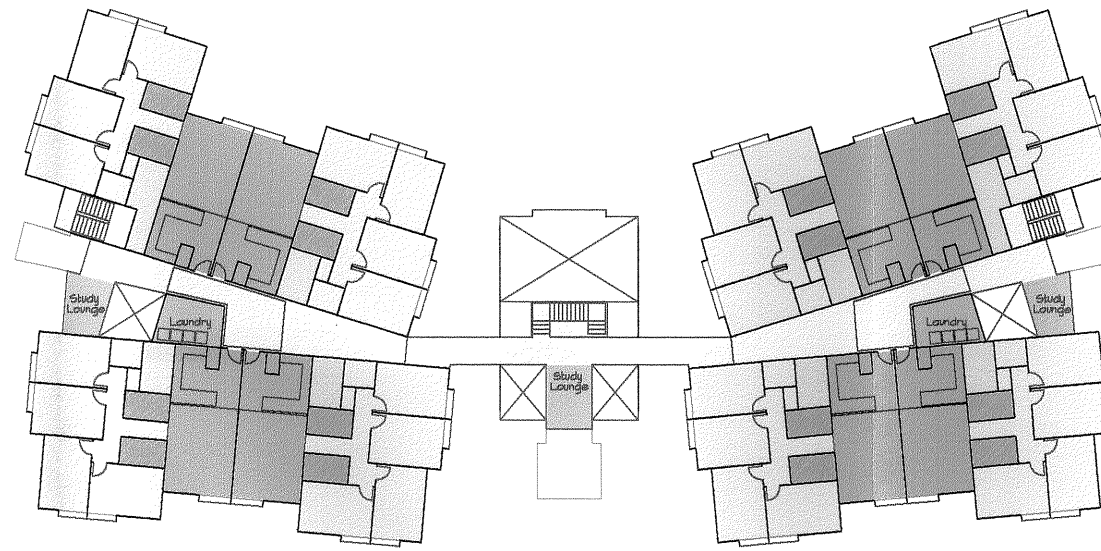
Unit Type 2



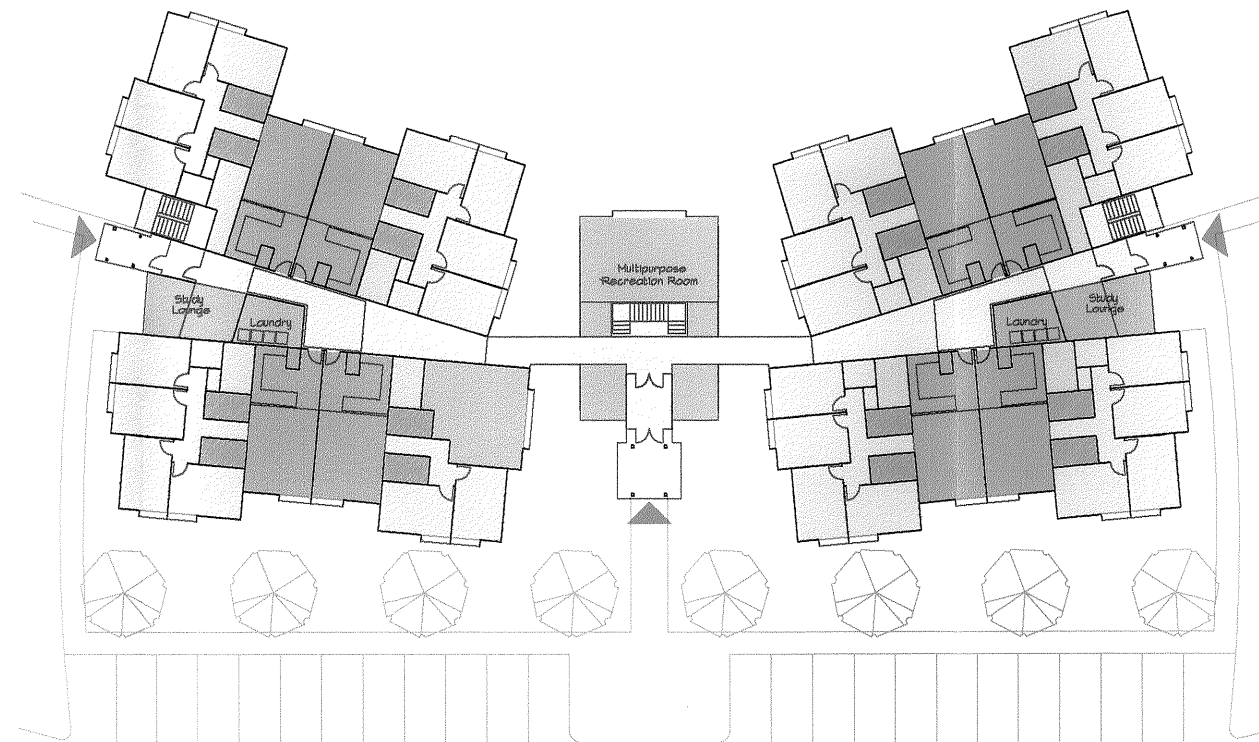
Unit Type 1



Resident Director Unit



2nd Floor Plan



1st Floor Plan

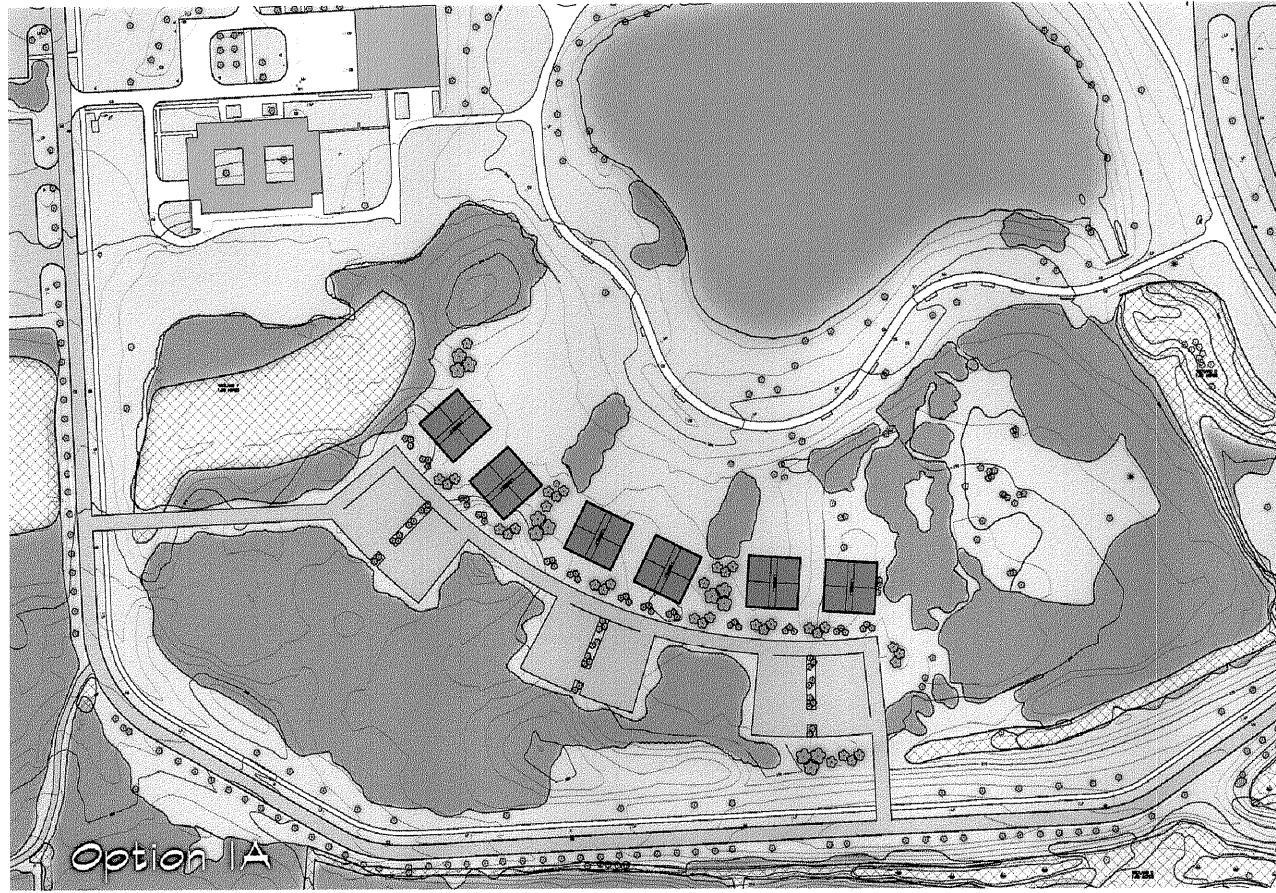
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Key:

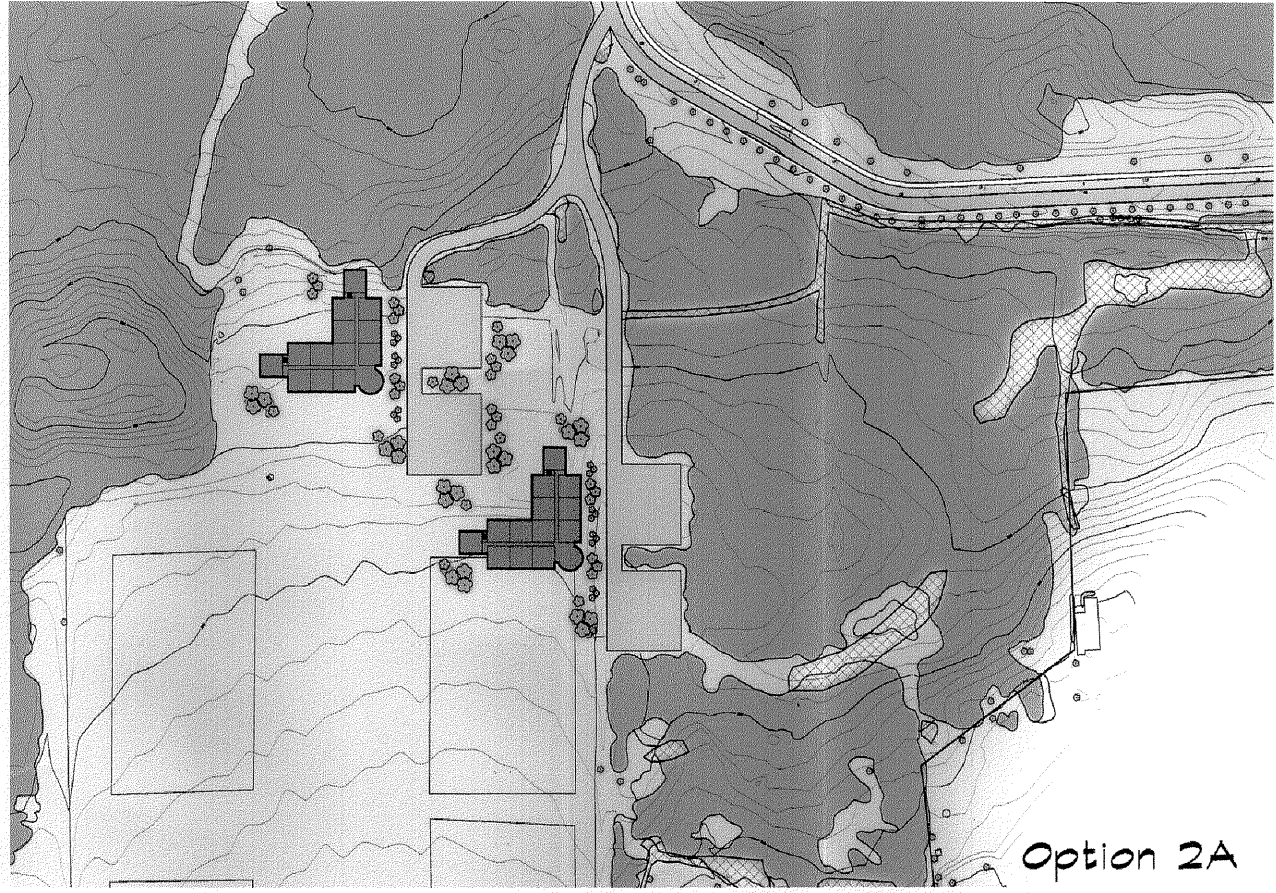
- Living, Dining, Kitchen
- Bedrooms
- Bath Rooms
- Resident Director Office & Mailroom
- Communal Spaces (Study Lounges, Laundry & Recreation Room)
- Utility Space



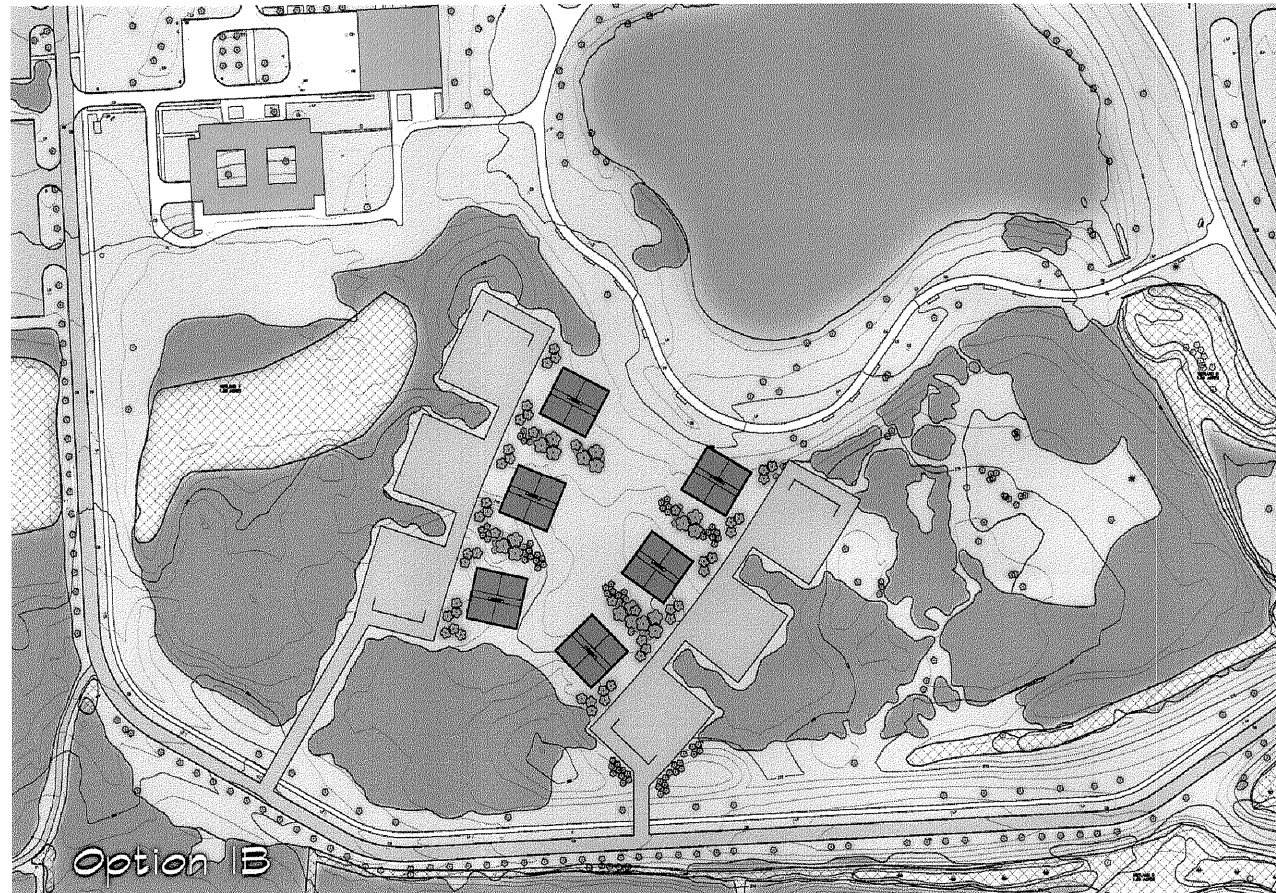
4. Concept Options



Option 1A



Option 2A



Option 1B

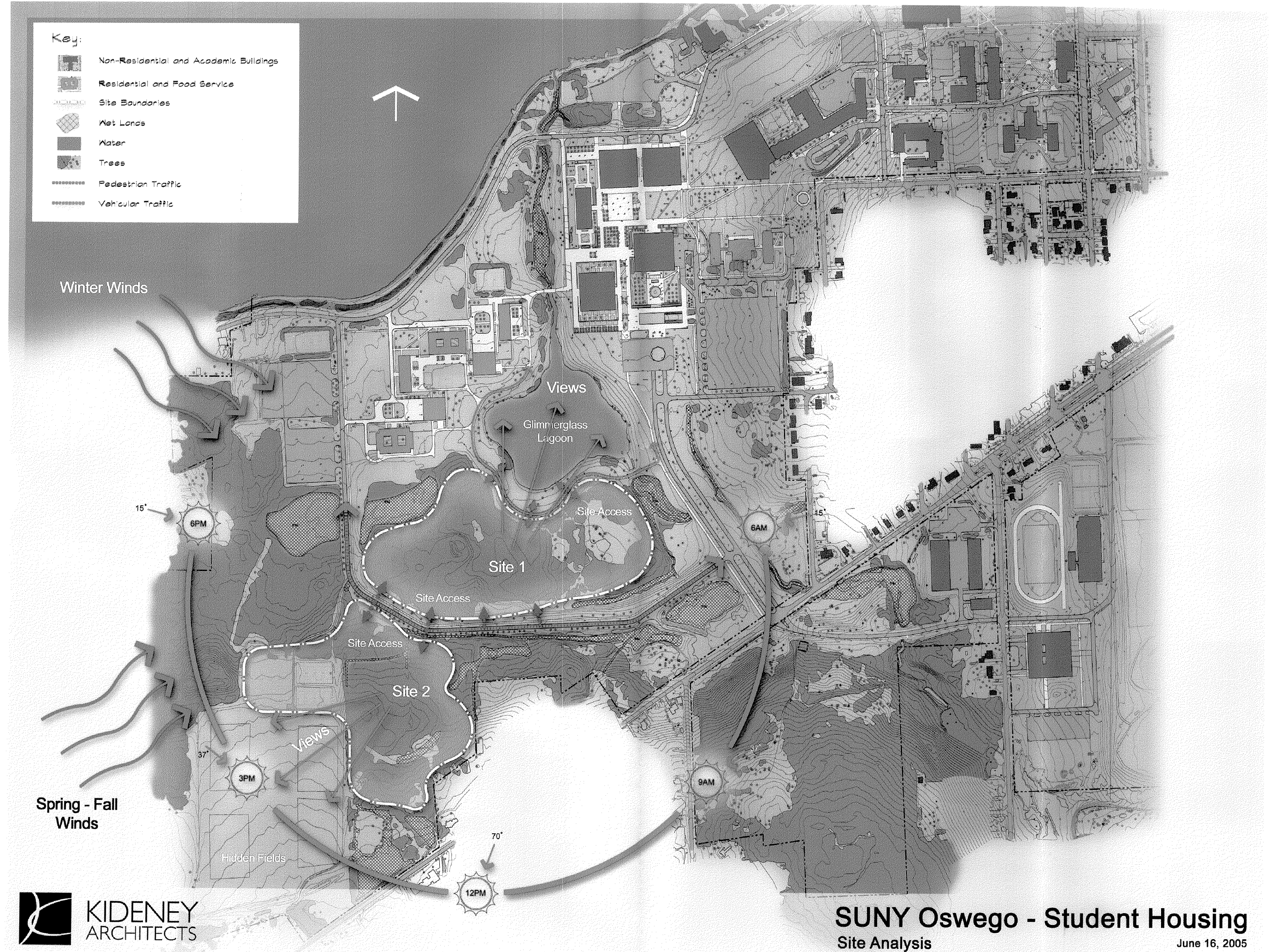


Option 2B



Key:

- Non-Residential and Academic Buildings
- Residential and Food Service
- Site Boundaries
- Wet Lands
- Water
- Trees
- Pedestrian Traffic
- Vehicular Traffic



5. MEP Systems Description



Mechanical

Each residential unit will be provided with a packaged HVAC unit incorporating gas-fired heat with complete cooling system. Supply air from the unit would be ducted and located above the ceiling with air distributed via ceiling diffusers to living and common areas.

Roof-mounted exhaust fans shall exhaust multiple toilet rooms through a vertical duct riser. Kitchen range hood will also be ducted to the building exterior.

Currently, the proposed site is not serviced by existing gas. Gas will be extended to the project site from existing college systems.

Electrical/Communication/Computer

All units will be provided with 110v outlets per the NYS Building Code. Bedrooms and common area spaces will be wired for full computer access.

Currently, the proposed site is not serviced by existing electrical power. Power will be extended to project from existing college systems.

Plumbing

Each unit will be provided with two shower, toilet and sink areas. A full kitchen with double bowl sink and dishwasher will be included in each living unit.

Currently, the proposed site is not serviced by domestic water, sanitary or storm water systems. Domestic water will be extended to the site from the college systems. The sanitary sewer will be extended to college pumping station using a gravity system. A storm water system will be designed to address site and parking lot areas.

Fire Protection

All buildings will be fully sprinklered.

6. Preliminary Cost Estimate

BAER & ASSOCIATES / CONSTRUCTION CONSULTANTS

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY

1/9/06

PROJECT SUMMARY	TOTAL COST
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MASONRY WALL BEARING OPTION

PER BUILDING	\$5,671,000	X 3	\$17,013,000
SITE DEVELOPMENT			\$776,000
SITE UTILITIES			<u>\$1,180,000</u>

TOTAL - MASONRY WALL BEARING OPTION **\$18,969,000**

BUILDING COST PER GSF	(NO SITE)	\$175
BUILDING COST PER BED	(NO SITE)	\$89,000

HEAVY GAUGE METAL FRAMING OPTION

PER BUILDING	\$5,322,000	X 3	\$15,966,000
SITE DEVELOPMENT			\$776,000
SITE UTILITIES			<u>\$1,180,000</u>

TOTAL - HEAVY GAUGE METAL FRAMING OPTION **\$17,922,000**

BUILDING COST PER GSF	(NO SITE)	\$165
BUILDING COST PER BED	(NO SITE)	\$84,000

NOTES TO ESTIMATE:

1. COST ESCALATION INCLUDED BASED ON INITIATION OF CONSTRUCTION SUMMER 2006.
2. LABOR UNIT COSTS BASED ON PREVAILING WAGE RATES FOR OSWEGO COUNTY.
3. MASONRY WALL BEARING OPTION INCORPORATES MASONRY WALLS TO ROOF EAVE HEIGHT.
4. ADDITIONAL INVESTIGATION IS REQUIRED TO DETERMINE LOCAL CONTRACTOR COMFORT LEVEL WITH HEAVY GAUGE METAL CONSTRUCTION.
5. AN APPROXIMATE 5% COST REDUCTION OF THE TOTAL ESTIMATE COULD BE ACHIEVED THROUGH OFF SITE PANELIZATION OF STRUCTURAL FLOOR, ROOF AND WALL COMPONENTS IN HEAVY GAUGE METAL OPTION.
6. EQUIPMENT AND FURNISHINGS ARE NOT INCLUDED IN ESTIMATE.
7. SITE UTILITIES ESTIMATE BASED ON ALLOWANCES - NO DESIGN COMPLETED.

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

SUMMARY	TOTAL MATERIAL	TOTAL LABOR	TOTAL COST	BLDG. \$/ GSF	% OF TOTAL
FOUNDATIONS	\$110,000	\$104,000	\$213,000	\$6.57	3.76%
FLOOR ON GRADE	\$41,000	\$41,000	\$82,000	\$2.53	1.45%
FLOOR SYSTEM	\$102,000	\$43,000	\$146,000	\$4.51	2.57%
ROOF SYSTEM	\$453,000	\$215,000	\$668,000	\$20.62	11.78%
EXTERIOR WALLS	\$361,000	\$376,000	\$737,000	\$22.75	13.00%
INTERIOR WALLS AND PARTITIONS	\$223,000	\$253,000	\$476,000	\$14.69	8.39%
FINISHES	\$199,000	\$229,000	\$428,000	\$13.21	7.55%
STAIRS	\$24,000	\$4,000	\$28,000	\$0.86	0.49%
SPECIALTIES	\$109,000	\$40,000	\$148,000	\$4.57	2.61%
SUB-TOTAL			\$1,622,000	\$90.31	51.60%
GENERAL CONDITIONS	8%		\$234,000	\$7.22	4.13%
SUB-TOTAL			\$3,160,000	\$97.53	55.72%
OVERHEAD AND PROFIT	8%		\$253,000	\$7.81	4.46%
TOTAL - GENERAL CONSTRUCTION			\$3,413,000	\$105.34	60.18%
PLUMBING			\$421,000	\$12.99	7.42%
FIRE PROTECTION			\$97,000	\$2.99	1.71%
HEATING, VENTILATING AND AIR CONDITIONING			\$356,000	\$10.99	6.28%
ELECTRICAL			\$454,000	\$14.01	8.01%
SUB-TOTAL			\$4,741,000	\$146.33	83.60%
ESCALATION (MID-POINT JAN 2007)	4%		\$190,000	\$5.86	3.35%
SUB-TOTAL			\$4,931,000	\$152.19	86.95%
CONTINGENCY	15%		\$740,000	\$22.84	13.05%
TOTAL - MASONRY WALL BEARING OPTION			32,400 SF	\$5,671,000	\$175.03 100.00%
OPTION: TWO-STOP HYDRAULIC ELEVATOR			ADD	\$70,000	

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FOUNDATIONS						
Poured-in-place concrete foundation walls with footings including excavation and backfill at exterior	1,086 LF	\$66.00	\$71,676	\$64.00	\$69,504	\$141,180
Interior foundation walls at masonry bearing and demising partitions	758 LF	50.00	37,900	45.00	34,110	72,010
TOTAL - FOUNDATIONS			109,576		103,614	213,190
TOTAL - FOUNDATIONS		SAY	\$110,000		\$104,000	\$213,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FLOOR ON GRADE						
5" concrete slab with welded wire mesh and 8" select fill including finish, cure and protect	16,900 SF	\$2.40	\$40,560	\$2.45	\$41,405	\$81,965
TOTAL - FLOOR ON GRADE			40,560		41,405	81,965
TOTAL - FLOOR ON GRADE SAY			\$41,000		\$41,000	\$82,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FLOOR SYSTEM						
8" precast concrete plank with concrete topping	15,260 SF	\$6.70	\$102,242	\$2.85	\$43,491	\$145,733
TOTAL - FLOOR SYSTEM			102,242		43,491	145,733
TOTAL - FLOOR SYSTEM SAY			\$102,000		\$43,000	\$146,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
ROOF SYSTEM						
Light gauge metal truss framing at sloped roofs	15,042 SF	\$8.00	\$120,336	\$2.75	\$41,366	\$161,702
Light gauge metal framing at flat roofs	2,480 SF	6.50	16,120	2.00	4,960	21,080
Sheathing	21,280 SF	0.90	19,152	0.65	13,832	32,984
Insulation	21,280 SF	1.00	21,280	0.45	9,576	30,856
Standing seam metal roofing at sloped roofs	18,800 SF	10.00	188,000	4.50	84,600	272,600
EPDM roofing at flat roofs with tapered insulation	2,480 SF	4.25	10,540	2.60	6,448	16,988
Soffits	2,800 SF	15.00	42,000	10.00	28,000	70,000
Roof edge	1,900 LF	6.00	11,400	5.00	9,500	20,900
Flashing at walls	646 LF	7.00	4,522	10.00	6,460	10,982
Roof drainage	1 LS	20,000.00	20,000	10,000.00	10,000	30,000
TOTAL - ROOF SYSTEM			453,350		214,742	668,092
TOTAL - ROOF SYSTEM SAY			\$453,000		\$215,000	\$668,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
EXTERIOR WALLS						
Concrete masonry unit bearing walls	21,720 SF	\$3.75	\$81,450	\$8.50	\$184,620	\$266,070
Heavy gauge metal stud framing with non-rigid insulation, exterior sheathing, vapor barrier and gypsum wallboard at interior at high walls	2,695 SF	5.25	14,149	6.00	16,170	30,319
Insulation	21,600 SF	0.50	10,800	0.55	11,880	22,680
Fenestration	4,472 SF	32.00	143,104	7.50	33,540	176,644
Face brick	8,000 SF	6.00	48,000	13.00	104,000	152,000
Hardi-panel siding	11,943 SF	2.30	27,469	1.40	16,720	44,189
Entry doors with sidelights						
- Single	2 EA	2,800.00	5,600	500.00	1,000	6,600
- Pair	1 PR	4,000.00	4,000	960.00	960	4,960
Lintels (brick and CMU)	893 LF	30.00	26,790	7.50	6,698	33,488
TOTAL - EXTERIOR WALLS			361,362		375,588	736,950
TOTAL - EXTERIOR WALLS SAY			\$361,000		\$376,000	\$737,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
INTERIOR WALLS AND PARTITIONS						
Concrete masonry unit bearing walls	5,120 SF	\$3.75	\$19,200	\$8.50	\$43,520	\$62,720
Concrete masonry unit demising walls	10,040 SF	2.25	22,590	6.95	69,778	92,368
Metal stud and gypsum wallboard partitions at Apartments	25,920 SF	1.40	36,288	3.10	80,352	116,640
Metal stud and gypsum wallboard partitions at Circulation	640 SF	1.50	960	3.10	1,984	2,944
Metal stud and gypsum wallboard partitions at Multi-Purpose	3,000 SF	1.50	4,500	3.10	9,300	13,800
Stub wall and railing at floor opening	48 LF	15.00	720	20.00	960	1,680
Doors and frames including hardware						
- Corridor	20 EA	900.00	18,000	260.00	5,200	23,200
- Within Apartments	128 EA	500.00	64,000	160.00	20,480	84,480
- Closet doors	96 EA	360.00	34,560	160.00	15,360	49,920
- Multi-Purpose	8 EA	775.00	6,200	240.00	1,920	8,120
Vestibule doors with sidelights - glazed						
- Single	2 EA	2,800.00	5,600	500.00	1,000	6,600
- Pair	1 PR	4,000.00	4,000	960.00	960	4,960
Rated doors at stair towers	8 EA	850.00	6,800	250.00	2,000	8,800
TOTAL - INTERIOR WALLS AND PARTITIONS			223,418		252,814	476,232
TOTAL - INTERIOR WALLS AND PARTITIONS SAY			\$223,000		\$253,000	\$476,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FINISHES						
<u>APARTMENTS</u>						
<u>FLOORS</u>						
Ceramic tile at bathroom	1,920 SF	\$4.25	\$8,160	\$4.10	\$7,872	\$16,032
Vinyl composition tile at Kitchen, Utility Space and Storage	3,984 SF	1.10	4,382	0.75	2,988	7,370
Carpet at Living Room and bedrooms	2,224 SY	16.00	35,584	5.35	11,898	47,482
Ceramic tile base	1,024 LF	4.10	4,198	4.00	4,096	8,294
Vinyl base	6,816 LF	1.05	7,157	1.00	6,816	13,973
<u>CEILINGS</u>						
Spray precast concrete plank	8,853 SF	0.70	6,197	0.65	5,754	11,951
Suspended gypsum wallboard	5,800 SF	2.25	13,050	3.00	17,400	30,450
Gypsum wallboard attached to roof framing	11,267 SF	0.70	7,887	1.30	14,647	22,534
Paint	17,067 SF	0.25	4,267	0.40	6,827	11,094
<u>WALLS</u>						
Gypsum wallboard applied to concrete masonry unit walls	36,800 SF	0.75	27,600	1.70	62,560	90,160
Ceramic tile	10,240 SF	3.75	38,400	3.40	34,816	73,216
Paint gypsum wallboard	68,160 SF	0.25	17,040	0.33	22,493	39,533
<u>CIRCULATION AND MULTIPURPOSE</u>						
<u>FLOORS</u>						
Vinyl composition tile at Circulation and Laundry	4,267 SF	1.10	4,694	0.75	3,200	7,894
Quarry tile at entrances	208 SF	4.15	863	3.95	822	1,685
Carpet at Study Lounge and Multi-Purpose	235 SY	20.00	4,700	5.50	1,293	5,993
Vinyl base	1,540 LF	1.05	1,617	1.00	1,540	3,157
<u>CEILINGS</u>						
Spray precast concrete plank	2,605 SF	0.70	1,824	0.65	1,693	3,517
Gypsum wallboard attached to roof framing	4,005 SF	0.70	2,804	1.30	5,207	8,011
Paint	4,005 SF	0.25	1,001	0.40	1,602	2,603

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **MASONRY WALL BEARING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
WALLS						
Gypsum wallboard applied to concrete masonry unit walls	7,380 SF	0.75	5,535	1.70	12,546	18,081
Paint gypsum wallboard	8,280 SF	0.25	2,070	0.33	2,732	4,802
TOTAL - FINISHES			199,030		228,802	427,832
TOTAL - FINISHES SAY			\$199,000		\$229,000	\$428,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **MASONRY WALL BEARING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
STAIRS						
Metal pan stairs with concrete fill including railings	54 R	\$400.00	\$21,600	\$60.00	\$3,240	\$24,840
Metal pan landings with concrete fill	81 SF	33.50	2,714	6.40	518	3,232
TOTAL - STAIRS			24,314		3,758	28,072
TOTAL - STAIRS SAY			\$24,000		\$4,000	\$28,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
SPECIALTIES						
Bathroom accessories	32 EA	\$400.00	\$12,800	\$160.00	\$5,120	\$17,920
Closet shelf and rod	544 LF	15.00	8,160	8.00	4,352	12,512
Shelving at Storage	16 EA	500.00	8,000	160.00	2,560	10,560
Kitchen base cabinets with counters	368 LF	125.00	46,000	40.00	14,720	60,720
Kitchen wall cabinets	250 LF	55.00	13,750	20.00	5,000	18,750
Signage	1 ALLOW	2,500.00	2,500	1,500.00	1,500	4,000
Mail boxes	64 EA	40.00	2,560	20.00	1,280	3,840
Miscellaneous Millwork	1 ALLOW	15,000.00	15,000	5,000.00	5,000	20,000
TOTAL - SPECIALTIES			108,770		39,532	148,302
TOTAL - SPECIALTIES SAY			\$109,000		\$40,000	\$148,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **MASONRY WALL BEARING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
PLUMBING						
Fixtures, piping, insulation, hot water generation	32,400 SF	\$8.00	\$259,200	\$5.00	\$162,000	\$421,200
TOTAL - PLUMBING			259,200		162,000	421,200
TOTAL - PLUMBING SAY			\$259,000		\$162,000	\$421,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FIRE PROTECTION						
Wet system all area (assume none required at Attics)	32,400 SF	\$1.50	\$48,600	\$1.50	\$48,600	\$97,200
TOTAL - FIRE PROTECTION			48,600		48,600	97,200
TOTAL - FIRE PROTECTION			SAY	\$49,000	\$49,000	\$97,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **MASONRY WALL BEARING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
HEATING, VENTILATING AND AIR CONDITIONING						
Individual forced air units including air conditioning in each apartment	32,400 SF	\$6.00	\$194,400	\$5.00	\$162,000	\$356,400
TOTAL - HEATING, VENTILATING AND AIR CONDITIONING			194,400		162,000	356,400
TOTAL - HEATING, VENTILATING AND AIR CONDITIONING SAY			\$194,000		\$162,000	\$356,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - MASONRY WALL BEARING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
ELECTRICAL						
Distribution, devices, lighting systems	32,400 SF	\$8.00	\$259,200	\$6.00	\$194,400	\$453,600
TOTAL - ELECTRICAL			259,200		194,400	453,600
TOTAL - ELECTRICAL SAY			\$259,000		\$194,000	\$454,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

SUMMARY	TOTAL MATERIAL	TOTAL LABOR	TOTAL COST	BLDG. \$ / GSF	% OF TOTAL
FOUNDATIONS	\$72,000	\$70,000	\$141,000	\$4.35	2.65%
FLOOR ON GRADE	\$41,000	\$41,000	\$82,000	\$2.53	1.54%
FLOOR SYSTEM	\$92,000	\$61,000	\$153,000	\$4.72	2.87%
ROOF SYSTEM	\$453,000	\$215,000	\$668,000	\$20.62	12.55%
EXTERIOR WALLS	\$372,000	\$345,000	\$717,000	\$22.13	13.47%
INTERIOR WALLS AND PARTITIONS	\$216,000	\$197,000	\$413,000	\$12.75	7.76%
FINISHES	\$161,000	\$166,000	\$327,000	\$10.09	6.14%
STAIRS	\$24,000	\$4,000	\$28,000	\$0.86	0.53%
SPECIALTIES	\$109,000	\$40,000	\$148,000	\$4.57	2.78%
SUB-TOTAL			\$1,540,000	\$82.62	50.30%
GENERAL CONDITIONS	8%		\$214,000	\$6.60	4.02%
SUB-TOTAL			\$2,891,000	\$89.23	54.32%
OVERHEAD AND PROFIT	8%		\$231,000	\$7.13	4.34%
TOTAL - GENERAL CONSTRUCTION			\$3,122,000	\$96.36	58.66%
PLUMBING			\$421,000	\$12.99	7.91%
FIRE PROTECTION			\$97,000	\$2.99	1.82%
HEATING, VENTILATING AND AIR CONDITIONING			\$356,000	\$10.99	6.69%
ELECTRICAL			\$454,000	\$14.01	8.53%
SUB-TOTAL			\$4,450,000	\$137.35	83.62%
ESCALATION (MID-POINT JAN 2007)	4%		\$178,000	\$5.49	3.34%
SUB-TOTAL			\$4,628,000	\$142.84	86.96%
CONTINGENCY	15%		\$694,000	\$21.42	13.04%
TOTAL - HEAVY GAUGE METAL FRAMING OPTION		32,400 SF	\$5,322,000	\$164.26	100.00%
OPTION: TWO-STOP HYDRAULIC ELEVATOR		ADD	\$70,000		

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FOUNDATIONS						
Poured-in-place concrete foundation walls with footings including excavation and backfill at exterior	1,086 LF	\$66.00	\$71,676	\$64.00	\$69,504	\$141,180
TOTAL - FOUNDATIONS			71,676		69,504	141,180
TOTAL - FOUNDATIONS SAY			\$72,000		\$70,000	\$141,000

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FLOOR ON GRADE						
5" concrete slab with welded wire mesh and 8" select fill including finish, cure and protect	16,900 SF	\$2.40	\$40,560	\$2.45	\$41,405	\$81,965
TOTAL - FLOOR ON GRADE			40,560	41,405	81,965	
TOTAL - FLOOR ON GRADE SAY			\$41,000	\$41,000	\$82,000	

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FLOOR SYSTEM						
Light gauge trade ready metal joist structural framing with plywood sheathing and 2" gypcrete	15,260 SF	\$6.00	\$91,560	\$4.00	\$61,040	\$152,600
TOTAL - FLOOR SYSTEM			91,560		61,040	152,600
TOTAL - FLOOR SYSTEM SAY			\$92,000		\$61,000	\$153,000

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
ROOF SYSTEM						
Light gauge metal truss framing at sloped roofs	15,042 SF	\$8.00	\$120,336	\$2.75	\$41,366	\$161,702
Light gauge metal framing at flat roofs	2,480 SF	6.50	16,120	2.00	4,960	21,080
Sheathing	21,280 SF	0.90	19,152	0.65	13,832	32,984
Insulation	21,280 SF	1.00	21,280	0.45	9,576	30,856
Standing seam metal roofing at sloped roofs	18,800 SF	10.00	188,000	4.50	84,600	272,600
EPDM roofing at flat roofs with tapered insulation	2,480 SF	4.25	10,540	2.60	6,448	16,988
Soffits	2,800 SF	15.00	42,000	10.00	28,000	70,000
Roof edge	1,900 LF	6.00	11,400	5.00	9,500	20,900
Flashing at walls	646 LF	7.00	4,522	10.00	6,460	10,982
Roof drainage	1 LS	20,000.00	20,000	10,000.00	10,000	30,000
TOTAL - ROOF SYSTEM			453,350		214,742	668,092
TOTAL - ROOF SYSTEM SAY			\$453,000		\$215,000	\$668,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
EXTERIOR WALLS						
Heavy gauge metal stud framing with non-rigid insulation, exterior sheathing, vapor barrier and gypsum wallboard at interior	24,415 SF	\$5.25	\$128,179	\$7.55	\$184,333	\$312,512
Fenestration	4,472 SF	32.00	143,104	7.50	33,540	176,644
Face brick	8,000 SF	6.00	48,000	13.00	104,000	152,000
Hardi-panel siding	11,943 SF	2.30	27,469	1.40	16,720	44,189
Entry doors with sidelights						
- Single	2 EA	2,800.00	5,600	500.00	1,000	6,600
- Pair	1 PR	4,000.00	4,000	960.00	960	4,960
Lintels (brick only)	893 LF	18.00	16,074	4.50	4,019	20,093
TOTAL - EXTERIOR WALLS			372,426		344,572	716,998
TOTAL - EXTERIOR WALLS	SAY		\$372,000		\$345,000	\$717,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
INTERIOR WALLS AND PARTITIONS						
Metal stud and gypsum wallboard demising partitions with rating and insulation	8,000 SF	\$2.45	\$19,600	\$3.90	\$31,200	\$50,800
Cavity shaft wall with 1" gypsum liner and one layer type "X" gypsum wallboard each side	1,320 SF	3.20	4,224	4.00	5,280	9,504
Metal stud and gypsum wallboard partitions at Apartments	31,040 SF	1.40	43,456	3.10	96,224	139,680
Metal stud and gypsum wallboard partitions at Circulation and Multi-Purpose	3,640 SF	2.45	8,918	3.94	14,342	23,260
Stub wall and railing at floor opening	48 LF	15.00	720	20.00	960	1,680
Doors and frames including hardware						
- Corridor	20 EA	900.00	18,000	350.00	7,000	25,000
- Apartments	128 EA	500.00	64,000	160.00	20,480	84,480
- Closet doors	96 EA	360.00	34,560	160.00	15,360	49,920
- Multi-Purpose	8 EA	775.00	6,200	240.00	1,920	8,120
Vestibule doors with sidelights - glazed						
- Single	2 EA	2,800.00	5,600	500.00	1,000	6,600
- Pair	1 PR	4,000.00	4,000	960.00	960	4,960
Rated doors at stair towers	8 EA	850.00	6,800	250.00	2,000	8,800
TOTAL - INTERIOR WALLS AND PARTITIONS			216,078		196,726	412,804
TOTAL - INTERIOR WALLS AND PARTITIONS SAY			\$216,000		\$197,000	\$413,000

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FINISHES						
<u>APARTMENTS</u>						
<u>FLOORS</u>						
Ceramic tile at bathroom	1,920 SF	\$4.25	\$8,160	\$4.10	\$7,872	\$16,032
Vinyl composition tile at Kitchen, Utility Space and Storage	3,984 SF	1.10	4,382	0.75	2,988	7,370
Carpet at Living Room and bedrooms	2,224 SY	16.00	35,584	5.35	11,898	47,482
Ceramic tile base	1,024 LF	4.10	4,198	4.00	4,096	8,294
Vinyl base	6,816 LF	1.05	7,157	1.00	6,816	13,973
<u>CEILINGS</u>						
Gypsum wallboard attached to floor and roof framing	25,920 SF	0.75	19,440	1.70	44,064	63,504
Paint	25,920 SF	0.25	6,480	0.40	10,368	16,848
<u>WALLS</u>						
Ceramic tile	10,240 SF	3.75	38,400	3.40	34,816	73,216
Paint gypsum wallboard	68,160 SF	0.25	17,040	0.33	22,493	39,533
<u>CIRCULATION AND MULTIPURPOSE</u>						
<u>FLOORS</u>						
Vinyl composition tile at Circulation and Laundry	4,267 SF	1.10	4,694	0.75	3,200	7,894
Quarry tile at entrances	208 SF	4.15	863	3.95	822	1,685
Carpet at Study Lounge and Multi-Purpose	235 SY	20.00	4,700	5.50	1,293	5,993
Vinyl base	1,540 LF	1.05	1,617	1.00	1,540	3,157
<u>CEILINGS</u>						
Gypsum wallboard attached to floor and roof framing	6,590 SF	0.70	4,613	1.30	8,567	13,180
Paint	6,590 SF	0.25	1,648	0.40	2,636	4,284
<u>WALLS</u>						
Paint gypsum wallboard	8,280 SF	0.25	2,070	0.33	2,732	4,802
TOTAL - FINISHES			161,046		166,201	327,247
TOTAL - FINISHES			SAY	\$161,000	\$166,000	\$327,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **HEAVY GAUGE METAL FRAMING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
STAIRS						
Metal pan stairs with concrete fill including railings	54 R	\$400.00	\$21,600	\$60.00	\$3,240	\$24,840
Metal pan landings with concrete fill	81 SF	33.50	2,714	6.40	518	3,232
TOTAL - STAIRS			24,314	3,758	28,072	
TOTAL - STAIRS SAY			\$24,000	\$4,000	\$28,000	

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
SPECIALTIES						
Bathroom accessories	32 EA	\$400.00	\$12,800	\$160.00	\$5,120	\$17,920
Closet shelf and rod	544 LF	15.00	8,160	8.00	4,352	12,512
Shelving at Storage	16 EA	500.00	8,000	160.00	2,560	10,560
Kitchen base cabinets with counters	368 LF	125.00	46,000	40.00	14,720	60,720
Kitchen wall cabinets	250 LF	55.00	13,750	20.00	5,000	18,750
Signage	1 ALLOW	2,500.00	2,500	1,500.00	1,500	4,000
Mail boxes	64 EA	40.00	2,560	20.00	1,280	3,840
Miscellaneous Millwork	1 ALLOW	15,000.00	15,000	5,000.00	5,000	20,000
TOTAL - SPECIALTIES			108,770		39,532	148,302
TOTAL - SPECIALTIES SAY			\$109,000		\$40,000	\$148,000

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
PLUMBING						
Fixtures, piping, insulation, hot water generation	32,400 SF	\$8.00	\$259,200	\$5.00	\$162,000	\$421,200
TOTAL - PLUMBING			259,200		162,000	421,200
TOTAL - PLUMBING			SAY	\$259,000	\$162,000	\$421,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **HEAVY GAUGE METAL FRAMING OPTION**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
FIRE PROTECTION						
Wet system all area	32,400 SF	\$1.50	\$48,600	\$1.50	\$48,600	\$97,200
TOTAL - FIRE PROTECTION			48,600		48,600	97,200
TOTAL - FIRE PROTECTION			SAY	\$49,000	\$49,000	\$97,000

STUDENT HOUSING

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STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
HEATING, VENTILATING AND AIR CONDITIONING						
Individual forced air units including air conditioning in each apartment	32,400 SF	\$6.00	\$194,400	\$5.00	\$162,000	\$356,400
TOTAL - HEATING, VENTILATING AND AIR CONDITIONING			194,400		162,000	356,400
TOTAL - HEATING, VENTILATING AND AIR CONDITIONING SAY			\$194,000		\$162,000	\$356,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - HEAVY GAUGE METAL FRAMING OPTION

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
ELECTRICAL						
Distribution, devices, lighting systems	32,400 SF	\$8.00	\$259,200	\$6.00	\$194,400	\$453,600
TOTAL - ELECTRICAL			259,200		194,400	453,600
TOTAL - ELECTRICAL SAY			\$259,000		\$194,000	\$454,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **SITWORK**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
SITE DEVELOPMENT						
<u>SITE PREP</u>						
Clear and grub site (light)	10 ACRES	\$1,500.00	\$15,000	\$1,209.00	\$12,090	\$27,090
Excavate for paved areas and dispose on site	4,769 CY	6.65	31,714	5.10	24,322	56,036
Strip and stockpile topsoil	7,648 CY	1.50	11,472	1.75	13,384	24,856
<u>PAVINGS AND WALKS</u>						
Asphalt roadways and parking lots with stone base	12,467 SY	16.00	199,472	6.00	74,802	274,274
Concrete walks with stone base	11,730 SF	2.00	23,460	1.90	22,287	45,747
Asphalt walks with stone base	536 SY	6.00	3,216	4.00	2,144	5,360
Concrete integral curbs	900 LF	4.00	3,600	5.25	4,725	8,325
Form, reinforce and pour concrete curbs at parking lots	2,370 LF	6.35	15,050	9.00	21,330	36,380
<u>LANDSCAPING</u>						
Spread existing topsoil, seed, fertilize and mulch	233,545 SF	0.08	18,684	0.17	39,703	58,387
Trees and shrubs	1 ALLOW	15,000.00	15,000	5,000.00	5,000	20,000
SUB-TOTAL			\$336,668		\$219,787	\$556,455
GENERAL CONDITIONS	8%					\$44,516
SUB-TOTAL						\$600,971
OVERHEAD AND PROFIT	8%					\$48,078
SUB-TOTAL						\$649,049
ESCALATION	4%					\$25,962
SUB-TOTAL						\$675,011
CONTINGENCY	15%					\$101,252
TOTAL - SITE DEVELOPMENT						\$776,263
TOTAL - SITE DEVELOPMENT SAY						\$776,000

STUDENT HOUSING

06-4

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

KIDENEY ARCHITECTS

FEASIBILITY STUDY - **SITWORK**

1/9/06

DESCRIPTION	QUANTITY	MATERIAL		LABOR		TOTAL
		UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	
SITE UTILITIES						
<u>SITE UTILITIES</u>						
PVC Sanitary service - gravity feed to existing sewage pumping station including manholes and earthwork	2,600 LF	\$27.40	\$71,240	\$14.50	\$37,700	\$108,940
Water and fire service - tie into existing 12" water service at Dormitory Road at southwest end of site (ductile iron) including valves and earthwork	3,000 LF	29.80	89,400	22.00	66,000	155,400
Gas service - from center of main entrance drive (polyethylene) including valves, curb boxes and earthwork	2,100 LF	11.10	23,310	10.00	21,000	44,310
Storm water system at parking lots (per lot)	3 EA	30,000.00	90,000	15,000.00	45,000	135,000
Primary underground electrical service including transformer	1,150 LF	105.00	120,750	70.00	80,500	201,250
Secondary service to building including ductbank	1,000 LF	75.00	75,000	70.00	70,000	145,000
Light standards and associated conduit and wire	16 EA	2,000.00	32,000	1,500.00	24,000	56,000
			\$501,700		\$344,200	\$845,900
SUB-TOTAL GENERAL CONDITIONS	8%					\$67,672
SUB-TOTAL OVERHEAD AND PROFIT	8%					\$913,572
SUB-TOTAL ESCALATION	4%					\$73,086
SUB-TOTAL CONTINGENCY	15%					\$986,658
						\$39,466
TOTAL - SITWORK UTILITIES						\$1,026,124
TOTAL - SITWORK UTILITIES SAY						\$153,919
						\$1,180,043
						\$1,180,000

7. Appendix



SUNY Oswego - Student Housing

Feasibility Study / Green Building Design

KA 2005 Q17

March 2, 2006

Green Building Design

In an effort to incorporate Green Building elements into the project design the following site, general construction, HVAC, plumbing, and electrical items are presented for consideration. It should be noted that these credits are listed individually without reflection of integrated solutions and energy impact. At this point, items are presented for discussion purposes; it is understood that the ultimate design will comply with Executive Order 111, but will not be supportive of environmental issues which may drive the cost beyond competitive housing costs. The final decision to incorporate any of the following items will be based on SUNY Oswego preferences, the result of a potential NYSERDA Energy Study, and by studying the integrated benefits. A preliminary LEED Checklist is included in this section of the report, which reflects the following:

1. Sustainable Sites

a Prerequisite 1 – Erosion & Sedimentation Control

1. Design erosion & sedimentation control plan for the site during construction per EPA Storm Water Management requirements.

b Credit 1 – Site Selection

1. The site qualifies for this credit as it is not prime farm land, less than 5' above the 100-year flood plane, is not a habitat for endangered species, developed area is more than 100' from wetlands, and is not public park land.

c Credit 4 – Alternative Transportation (4.1 – 4.2)

1. Site is located within ¼ mile of campus bus route.
2. Provide bicycle racks & shower facilities.

d Credit 5 – Reduced Site Disturbance (5.1)

1. Limit site disturbance, earthwork and clearing of vegetation to 40' beyond new buildings and 5' beyond primary roadway curbs, walkways utility trenches.

e Credit 6 – Storm Water Management (6.1 – 6.2)

1. Design storm water management system resulting in no net increase in rate or quantity of storm water runoff.
2. Design storm water treatment system to remove 80% of suspended solids and 40% of phosphorous.

f Credit 7 – Reduce Heat Islands (7.2)

1. Use Energy Star compliant high-reflectance and high-emissivity roofing.



SUNY Oswego - Student Housing

Feasibility Study / Green Building Design

KA 2005 017

March 2, 2006

g Credit 8 - Light Pollution Control

1. Light pollution reduction to be achieved by installation of exterior fixtures that limit the amount of upward light projection into the night sky and that avoid off-site lighting.

2. Water Efficiency

a Credit 1 - Water Efficient Landscaping (1.2)

1. No permanent landscaping irrigation system will be installed.

3. Energy & Atmosphere

a Prerequisite 1 - Fundamental Building Systems Commissioning

1. Verify and ensure that fundamental building mechanical and electrical elements and systems are designed, installed and operate as intended.

b Prerequisite 2 - Minimum Energy Performance

1. Design will meet the building energy efficiency and performance as required by ASHRAE/IESNA 90.1-1999 or the New York State Energy Code, whichever is more stringent.

c Prerequisite 3 - CFC Reduction in HVAC & R Equipment

1. Specify only non-CFC-based refrigerants in all building HVAC equipment.

d Credit 1 - Optimize Energy Performance, 30% New (1.1 – 1.2)

1. Modify basis of design HVAC equipment, domestic water heating equipment and lighting fixtures to utilize highly efficient components. Use non-homogeneous lighting systems, occupant controlled task lighting, daylighting, NYSERDA approved high-efficiency light fixtures, and other measures to reduce the overall energy and lighting power budget.

e Credit 3 - Additional Commissioning

1. Provide independent review of construction documents, submittals and commissioning manual to ensure systems are operating as intended. Commissioning manual will include, but is not limited to, as-built control drawings, schedules, operational procedures, recalibration recommendations, set points list, and diagnostic tools.

f Credit 4 - Ozone Depletion

1. Install HVAC and refrigeration equipment that do not contain HCFC's or Halon.



SUNY Oswego - Student Housing

Feasibility Study / Green Building Design

KA 2005 017

March 2, 2006

4. Materials & Resources

- a Prerequisite 1 – Storage & Collection of Recyclables
 - 1. Provide an area for collection, sorting and storage of recyclable materials.
- b Credit 5 – Local / Regional Materials (5.1)
 - 1. Specify 20% of building materials that are manufactured within a radius of 500 miles.

5. Indoor Environmental Quality

- a Prerequisite 1 - Minimum IAQ Performance
 - 1. Provide documentation stating HVAC design complies with ASHRAE 62-1999 requirements.
 - 2. Locate outdoor air intakes 20 to 40 feet away from possible sources of contamination, e.g., loading docks, cooling towers and sanitary vents.
- b Prerequisite 2 - Environmental Tobacco Smoke
 - 1. Provide letter from building Owner verifying building prohibiting smoking.
- c Credit 2 – Increase Ventilation Effectiveness
 - 1. Provide effective delivery and mixing of fresh air to building occupants per ASHRAE 129-1997.
- d Credit 3 - Construction IAQ Management Plan (3.1 & 3.2)
 - 1. Develop Indoor Air Quality (IAQ) management plan for use during construction phase (3.1). Plan will include isolation of HVAC equipment during construction to avoid dust/particle contamination, providing 65% efficient filtration, frequent monitoring and replacement of filtration systems during the construction phase.
 - 2. Provide minimum 14 day building flush-out at 100% outside air and new filtration media after construction, prior to building occupancy (3.2).
- e Credit 4 – Low Emitting Materials (4.1 – 4.4)
 - 1. Specify materials which meet or exceed VOC limits for adhesives, sealants, paints, carpet and composite wood.



SUNY Oswego - Student Housing

Feasibility Study / Green Building Design

KA 2005 017

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- f Credit 5 - Indoor Chemical and Pollutant source Control
 - 1. Provide permanent entryway systems to capture dirt and particles from entering buildings at high volume areas.
 - 2. Provide local exhaust for all odor control and chemical use / housekeeping areas.

- g Credit 6 – Controllability of Systems (6.1)
 - 1. Provide min. one operable window and one lighting control zone per 200 sf. for all occupied areas within 15 feet of the perimeter wall.

- h Credit 7 - Thermal Comfort (7.1)
 - 1. Provide humidification, controls and monitoring capability throughout the building. Provide ASHRAE 55-1992 and addenda compliance documentation.

- i Credit 8 – Daylight and Views (8.1 – 8.2)
 - 1. Exclude direct sunlight penetration (Daylight Factor 2%) in 75% of spaces occupied for critical visual tasks.
 - 2. Provide direct line of sight to vision glazing from 90% of regularly occupied spaces.

Preliminary LEED Checklist - SUNY Oswego Student Housing

29	11	Total Project Score	Possible Points 69
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Certified 26 to 32 points Silver 33 to 38 points Gold 39 to 51 points Platinum 52 or more points

8	1	Sustainable Sites		Possible Points 14
Y	?	N		
Y			Prereq 1	Erosion & Sedimentation Control
1			Credit 1	Site Selection 1
			Credit 2	Urban Redevelopment 1
			Credit 3	Brownfield Redevelopment 1
1			Credit 4.1	Alternative Transportation , Public Transportation Access 1
1			Credit 4.2	Alternative Transportation , Bicycle Storage & Changing Rooms 1
			Credit 4.3	Alternative Transportation , Alternative Fuel Refueling Stations 1
			Credit 4.4	Alternative Transportation , Parking Capacity 1
1			Credit 5.1	Reduced Site Disturbance , Protect or Restore Open Space 1
			Credit 5.2	Reduced Site Disturbance , Development Footprint 1
1			Credit 6.1	Stormwater Management , Rate and Quantity 1
1			Credit 6.2	Stormwater Management , Treatment 1
	1		Credit 7.1	Landscape & Exterior Design to Reduce Heat Islands , Non-Roof 1
1			Credit 7.2	Landscape & Exterior Design to Reduce Heat Islands , Roof 1
1			Credit 8	Light Pollution Reduction 1

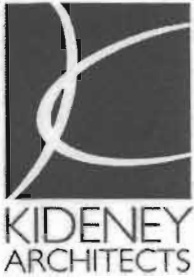
1	4	Materials & Resources		Possible Points 13
Y	?	N		
Y			Prereq 1	Storage & Collection of Recyclables
			Credit 1.1	Building Reuse , Maintain 75% of Existing Shell 1
			Credit 1.2	Building Reuse , Maintain 100% of Existing Shell 1
			Credit 1.3	Building Reuse , Maintain 100% Shell & 50% Non-Shell 1
	1		Credit 2.1	Construction Waste Management , Divert 50% 1
			Credit 2.2	Construction Waste Management , Divert 75% 1
			Credit 3.1	Resource Reuse , Specify 5% 1
			Credit 3.2	Resource Reuse , Specify 10% 1
	1		Credit 4.1	Recycled Content , Specify 25% 1
			Credit 4.2	Recycled Content , Specify 50% 1
1			Credit 5.1	Local/Regional Materials , 20% Manufactured Locally 1
			Credit 5.2	Local/Regional Materials , of 20% Above, 50% Harvested Locally 1
	1		Credit 6	Rapidly Renewable Materials 1
			Credit 7	Certified Wood 1

1	1	Water Efficiency		Possible Points 5
Y	?	N		
			Credit 1.1	Water Efficient Landscaping , Reduce by 50% 1
1			Credit 1.2	Water Efficient Landscaping , No Potable Use or No Irrigation 1
			Credit 2	Innovative Wastewater Technologies 1
	1		Credit 3.1	Water Use Reduction , 20% Reduction 1
			Credit 3.2	Water Use Reduction , 30% Reduction 1

12	2	Indoor Environmental Quality		Possible Points 15
Y	?	N		
Y			Prereq 1	Minimum IAQ Performance
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control
			Credit 1	Carbon Dioxide (CO₂) Monitoring 1
1			Credit 2	Increase Ventilation Effectiveness 1
1			Credit 3.1	Construction IAQ Management Plan , During Construction 1
1			Credit 3.2	Construction IAQ Management Plan , Before Occupancy 1
1			Credit 4.1	Low-Emitting Materials , Adhesives & Sealants 1
1			Credit 4.2	Low-Emitting Materials , Paints 1
1			Credit 4.3	Low-Emitting Materials , Carpet 1
1			Credit 4.4	Low-Emitting Materials , Composite Wood 1
1			Credit 5	Indoor Chemical & Pollutant Source Control 1
1			Credit 6.1	Controllability of Systems , Perimeter 1
	1		Credit 6.2	Controllability of Systems , Non-Perimeter 1
	1		Credit 7.1	Thermal Comfort , Comply with ASHRAE 55-1992 1
	1		Credit 7.2	Thermal Comfort , Permanent Monitoring System 1
1			Credit 8.1	Daylight & Views , Daylight 75% of Spaces 1
1			Credit 8.2	Daylight & Views , Views for 90% of Spaces 1

6	3	Energy & Atmosphere		Possible Points 17
Y	?	N		
Y			Prereq 1	Fundamental Building Systems Commissioning
Y			Prereq 2	Minimum Energy Performance
Y			Prereq 3	CFC Reduction in HVAC&R Equipment
2			Credit 1.1	Optimize Energy Performance , 20% New / 10% Existing 2
2			Credit 1.2	Optimize Energy Performance , 30% New / 20% Existing 2
	2		Credit 1.3	Optimize Energy Performance , 40% New / 30% Existing 2
			Credit 1.4	Optimize Energy Performance , 50% New / 40% Existing 2
			Credit 1.5	Optimize Energy Performance , 60% New / 50% Existing 2
			Credit 2.1	Renewable Energy , 5% 1
			Credit 2.2	Renewable Energy , 10% 1
			Credit 2.3	Renewable Energy , 20% 1
1			Credit 3	Additional Commissioning 1
1			Credit 4	Ozone Depletion 1
	1		Credit 5	Measurement & Verification 1
			Credit 6	Green Power 1

1	Innovation & Design Process		Possible Points 5	
Y	?	N		
			Credit 1.1	Innovation in Design : Specific Title 1
			Credit 1.2	Innovation in Design : Specific Title 1
			Credit 1.3	Innovation in Design : Specific Title 1
			Credit 1.4	Innovation in Design : Specific Title 1
1			Credit 2	LEED™ Accredited Professional 1



June 27, 2005

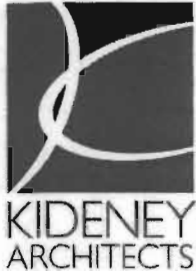
Re: SUNY Oswego – Student Housing
Feasibility Study
KA No. 2005 017

MEETING MINUTES

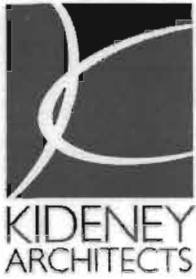
Minutes of a meeting for the above project, held at Culkin Hall, SUNY Oswego, on June 16, 2005. (Prepared by Joseph Lenahan.)

Attendees:	Jerry Desantis	Facilities Services - SUNY Oswego
	Tom Simmons	Facilities Design - SUNY Oswego
	Joe Grant	Student Affairs - SUNY Oswego
	Chuck Weeks	Residence Life - SUNY Oswego
	Glenn Pawloski	Kideney Architects
	Joe Lenahan	Kideney Architects

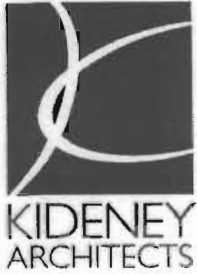
1. The purpose of the meeting was to further define the program and design parameters for proposed student housing through discussion of building images, code issues, unit types, building organization, site context and site concepts.
2. Kideney presented for discussion, a collection of images of student and multifamily housing representing a wide range of materials and styles implemented at campuses across the country. Feedback indicated that the preference is for smaller scale buildings, brick masonry, 2 to 3-stories in height, transparency and visibility at stairs and entrances, sloped roofs and no balconies.
3. Kideney presented a comparative analysis of the two proposed sites. Site 1 is the wooded area to the south of Glimmerglass Lagoon. Site 2 is the wooded and open area at the north edge of the Hidden Fields. The site analysis drawing depicted pedestrian and vehicular traffic routes in the vicinity of the sites, potential views, solar path / angles, winter and summer wind directions, wetlands delineation, topography and other orienting features of the sites. There was general agreement that Site 1 is the easier site to develop, and is the preferred site based on closer proximity to the Campus, easier pedestrian and vehicular access, less intrusion and impact by wetlands.
4. The target population for student apartments at SUNY Oswego is primarily seniors, possibly juniors. A goal is to retain students on campus who may be looking for a more independent living environment, and who would otherwise be considering moving off campus. Use of these apartments to support summer programs is not anticipated (Sheldon Hall is location for summer programs).



5. A preliminary (partial) space program was distributed (copy attached) which indicated proposed sizes for bedrooms, living/dining spaces, kitchens and bathrooms. A typical 4-bedroom unit is anticipated to be approximately 1260 nsf, and a 6-bedroom unit is anticipated to be approximately 1600 nsf. Campus representatives expressed a preference for all single bedrooms, but acknowledged a mix of sizes may be appropriate. Preliminary plan concepts may consider a small percentage of double rooms. Bedroom size must be confirmed in consideration of anticipated furniture. Kitchens are to be provided but should be small and simple as most residents are anticipated to purchase meal plans; cooking is expected to be minimal.
6. Space program for common facilities (laundry, mail, meeting room, office, storage spaces) will be developed by Kideney for discussion. A separate community building is not anticipated; no café or other similar facilities will be provided, which would compete with the Campus Center and other existing food service and retail facilities. If provided, office and meeting space will most likely be grouped in one residential structure. Laundry, mail and storage space will be distributed in each structure.
7. Small scale residential structures may be linked to facilitate sharing of elevator. Example cited at Colby College apartments, connective spaces at corners included elevators and common facilities.
8. It is likely that an apartment for a resident director or resident manager will be included. More discussion required to determine whether or not room sizes and configuration of RD / RM apartment will match typical unit or be enhanced in any way.
9. A preliminary code review was distributed (copy attached) which identifies the anticipated occupancy classification as R2 Residential (apartments), and the anticipated construction classification to be Type IIB, non-combustible. The code review outlines basic requirements with respect to fire safety, exiting, energy efficiency and accessibility issues. Several issues were discussed in more detail:
 - For small scale R2 residential buildings, no more than 2 stories in height, no more than 4 dwelling units per floor, and less than 50' travel distance to an exit, the Code permits a single exit stair. Collectively, the design team (Campus & Kideney) will have to make a determination whether or not we are comfortable with a single means of egress from second floor spaces.
 - With respect to accessibility, in the R2 occupancy classification, 2 types of dwelling units are defined: Type A – fully accessible, and Type B – adaptable. Within an R2 structure (apartment building) no Type A – accessible units are required to be provided, however, all units on all accessible floors are required to be Type B – adaptable units. This means that if an elevator is provided in a multistory building, all units on all floors are required to be adaptable to persons with disabilities. If no elevator is provided, then all units at the accessible / grade level are



- required to be adaptable. Kideney recommended that even though they are not required, a mutually agreeable number of fully-accessible dwelling units should be provided, and distributed on the accessible floor levels.
- The Code does not include a threshold in terms of building height, after which an elevator is required in the R2 occupancy. It is acceptable under the Code to build a multistory structure without an elevator. The inclusion of an elevator will influence the number and distribution of adaptable dwelling units in the building. There was general agreement among those present that it may be reasonable to build a two-story building without an elevator, but three stories would necessitate an elevator for moving in and out, and for general circulation. In very rough terms, the cost per elevator is approximately \$30,000 to \$40,000 per stop.
10. Bubble diagrams representing a variety of dwelling unit sizes (3, 4, 5 and 6 bedroom) and organizations were discussed to review the interrelationships between size of unit, zoning public and private areas, opportunities for glazing and ease of grouping units to form buildings. The Campus prefers a combination of 4 and 6-bedroom units (even number of beds per unit). Primarily 4-bedroom units, with a limited number of 6-bedroom units. The Campus would consider 2-story dwelling units.
11. Preliminary site concept options for each site were presented for discussion; the purpose of the site option diagrams was to illustrate the scale and fit of varying approaches:
- Site Option 1A - located at the Glimmerglass site, represents 2-story buildings comprised of four 4-bedroom units each floor. The total capacity of the six buildings shown is 192 beds, which could be increased to 204 beds easily by replacing a single 4-bedroom unit with a 6-bedroom unit once in each building. The buildings are arranged in an arc focusing on Glimmerglass Lagoon. Parking is illustrated as six smaller, decentralized lots of approximately 34 spaces each. Vehicular access to the street is provided at two locations. If the Glimmerglass site is selected as the site for development, the Campus requested that a strong pedestrian connection to the Pathfinder Dining Hall should be included.
 - Site Option 1B - located at the Glimmerglass site, represents 2-story buildings comprised of four 4-bedroom units each floor. The total capacity of the six buildings shown is 192 beds, which could be increased to 204 beds easily by replacing a single 4-bedroom unit with a 6-bedroom unit once in each building. The buildings are arranged similarly to Option 1A except that they are more inwardly focused on a central public open space which opens towards Glimmerglass Lagoon. Parking is illustrated as six smaller, decentralized lots of approximately 34 spaces each. Vehicular access to the street is provided at two locations, but is not a continuous loop; this configuration would require a turn-around loop at the inboard end of each group of parking areas.



- Site Option 2A - located at the Hidden Fields site, represents a more centralized approach with larger scale, 2-story buildings comprised of twelve 4-bedroom units each floor. The total capacity of the two buildings shown is 192 beds. The capacity could be increased by incorporating several 6-bedroom units. The buildings face the Hidden Fields from the north end of the site; one building is sited at the edge of an area of steeper terrain to take advantage of the view of the natural area to the northwest. Parking is illustrated as four, decentralized lots of approximately 50 spaces each. Vehicular access to the street is provided at a single location; this configuration would require a turn-around loop at the inboard end of the group of parking areas.
- Site Option 2B - located at the Hidden Fields site, represents 2-story buildings comprised of six 4-bedroom units each floor. The total capacity of the four buildings shown is 192 beds, which could be increased to 200 beds easily by replacing a single 4-bedroom unit with a 6-bedroom unit once in each building. The buildings are arranged in an arc oriented towards the Hidden Fields. Parking is illustrated as four, decentralized lots of approximately 50 spaces each. Vehicular access to the street is provided at a single location; this configuration would require a turn-around loop at the inboard end of the group of parking areas.

The diagrams presented are generic and conceptual. Selected options will be refined to respond to feedback from the Campus, and to respond more closely to specific site features and the final program when more information is available. All of the options presented could be constructed in two phases.

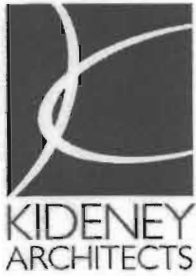
12. Post-Meeting Note – a focus group meeting with students on campus for the summer has been scheduled for 7/5/05, to solicit feedback regarding preferences for apartment style housing to be incorporated into the program.
13. If corrections to these minutes are required, please return written notification of corrections as soon as possible. If no corrections are received, it will be assumed that these notes are correct and acceptable as written.

Respectfully submitted,

Joseph Lenahan

Joseph Lenahan, RA
Executive Associate

copy: all attendees



July 20, 2005

Re: SUNY Oswego – Student Housing
Feasibility Study
KA No. 2005 017

MEETING MINUTES

Minutes of a focus group meeting for the above project, held at Johnson Hall, SUNY Oswego, on July 5, 2005. (Prepared by Joseph Lenahan.)

Attendees:	Student Attendees	See attached sign-in sheet
	Chuck Weeks	Residence Life - SUNY Oswego
	Jerry Desantis	Facilities Services - SUNY Oswego
	Tom Simmonds	Facilities Design - SUNY Oswego
	Glenn Pawloski	Kideney Architects
	Joe Lenahan	Kideney Architects

1. The purpose of the meeting was to solicit feedback from students regarding programmatic preferences for apartment type student housing. The information will be used to further define the program and design parameters for proposed student housing. It was noted that none of the students are SUNY Oswego students, but all are Oswego residents familiar with the campus; all will be upper classmen at their respective campuses this fall and many will be living in shared apartment style housing. Their opinions and preferences are considered very relevant to the design of student apartments at SUNY Oswego. A copy of the agenda, and student sign-in sheet is attached.
2. There was consensus among all students that single bedrooms within a shared apartment were preferred. Students agreed that a primary reason for choosing apartment style housing was to "get your own room". Sharing a double room within an apartment was not desirable. Perceived advantages of apartment style housing include improved privacy and having a quiet place to work.
3. Having the ability to choose your own "roommates" was also considered very important. Being placed in an apartment by Residence Life with people you don't know was not desirable. The need to fill a vacancy if a student moves out before the end of an academic year was discussed; the preference was to give the remaining apartment residents the first chance to find a student to fill the vacancy, but if they were not successful within a prescribed time period, then the vacancy would be filled by Residence Life.



4. Students agreed that an “all inclusive” rental arrangement was preferred – apartment should be furnished and the cost / rental agreement should include the rent, utilities, cable TV and internet / campus network access. Students also agreed that convenience and proximity to the campus would be big selling points.
5. The preferred maximum number of roommates per apartment was discussed; there was consensus that four roommates was the preferred maximum, and that an apartment with four single bedrooms and two bathrooms was ideal. Some of the students felt that six bedrooms might work if the apartment was a two story unit with bedrooms on one level and public spaces (living room, kitchen, etc.) on another level to separate potentially noisy activities from quiet spaces. It was also acknowledged that it could be difficult to find six students who could all get along and wanted to live together.
6. Inclusion of small but fully equipped kitchen is important; not all students would plan to purchase a meal plan if they were living in an apartment, and some would prefer to cook some of their meals. Some of the focus group members advised that a built-in counter with stools was preferred over a dining table.
7. Elevators were discussed and students agreed that walking up to a second floor apartment was not particularly objectionable, even a three story building was not out of the question, although moving in / out would be difficult.
8. There was agreement that the larger the building, the less likely occupants were to care for shared public spaces. Onondaga Hall was cited as an example, too many people and residents were not very respectful of the building. Students felt that in a smaller scale environment, residents would be more “protective” and generally try to take care of it because it would be “their own place”.
9. Focus group members felt that bedrooms should be large enough to include full size (double) beds rather than twin size (single) beds. Bedroom furniture should include full size bed, dresser and desk. Closets should be large enough to store boxes, and bedrooms should be provided with cable TV and internet / campus network connection capabilities.
10. The entry space to the building should provide space to store bikes inside the building but not inside the individual apartments. An example was cited where a student apartment building included a bike rack beneath a stair, inside the building where bikes could be secured.



11. Students felt that everybody has their own computer, and that a “computer room” was not important, however it was very important to provide a study lounge with wireless or hardwired internet / campus network access. The study lounge would serve a variety of functions: avoid keeping your roommate(s) up all night if you need to work late, provide a quiet place to study outside the apartment because you can’t always control what’s going on in the living room, and would serve as a meeting place for study groups.
12. The possibility of a “community building” was discussed. Whether or not a freestanding community building will be included, or if community facilities will be located within one of the apartment buildings, has yet to be determined. Possible activities to be accommodated by a community building were discussed, suggestions included: study lounge, laundry facilities, small fitness room (treadmill & stairmaster, but no free weights), meeting room, pool table / game room, big screen TV / movie night, fireplace, space and equipment to cook for and dine with a larger group, grills to cook out. There was no consensus on the best location for laundry facilities; suggestions included: stacked washer/dryer within each individual apartment, shared washers/dryers within each apartment building, shared washers/dryers within a community building.
13. All participants (students and campus representatives) agreed it was important to include some features and facilities to help to foster a sense of community. Campus representatives expressed concern over including food service or retail functions which might not attract enough clients to succeed in a small community, and which might compete with other food service and retail operations already available on the campus.
14. There was consensus that the Hidden Fields site was perceived as too remote, was too far to walk to classes or other activities on campus and would feel disconnected from the campus. Students acknowledged that some would walk to class if the walk was not more than 10 minutes. A 10 minute walk in Oswego’s cold weather was determined to be the maximum tolerable.
15. Parking capacity must exceed the number of residents, as all residents expect to have cars, and additional spaces should be provided for visitors. A suggestion was made that parking spaces provided should be restricted to residents only during class hours.
16. The site diagrams prepared for the June 16th meeting were presented for discussion with the student group. There was consensus that the smaller scale building concepts illustrated at the Glimmerglass site (Options 1A & 1B) were preferred over the larger scale building concepts. Students felt that a combination of Options 1A & 1B might be most successful – to provide an arrangement of the buildings to focus on a community outdoor space that opens toward the lake similar to Option 1B, but also to provide vehicular circulation that doesn’t require a turn-around loop and provides easy / safe access to the street similar to Option 1A.



17. Keeping as many of the existing trees as possible was a high priority to maintain the character of the site. Obviously a balance to provide visibility of pathways from parking areas, and open and well lit walkways for the safety of students is also a priority.
18. Air conditioning was important to the students, especially if full year occupancy was to be considered. There was discussion of the logistics of accommodating 10 month & 12 month leases by individual students within the same apartment. This is a complex issue and will require further detailed consideration by Residence Life.
19. Students agreed that some supervision was probably appropriate and would be helpful for mediation of disputes; inclusion of a single resident director apartment would be a good idea, but resident advisors in each building would not be well received.
20. At the end of the discussion, the each student was asked to summarize the most important issue that would affect their decision to choose to live in on-campus, shared apartment style housing; the following comments were made:
 - Single bedroom / private space, reasonable size room, not “closet sized”.
 - Community facilities, fitness room, mail pick-up at community building.
 - Two people sharing a bathroom, maximum. Size of bedroom, number of roommates.
 - Having your own room.
 - Laundry facilities preferably in each apartment.
 - Apartment fully furnished.
 - Furnished apartment, appliances, full sized refrigerator – not “apartment sized”.
 - Bring the independence & desirability of “off-campus” to on campus apartments.
21. Additions to these minutes are welcomed and encouraged to ensure that all relevant thoughts on the new student housing are considered. Please forward any additions or corrections.

Respectfully submitted,

Joseph Lenahan

Joseph Lenahan, RA
Executive Associate

copy: Tom Simmonds – Facilities Design, for distribution to attendees.

Good morning Glenn,

Per your request last month, I have summarized our thoughts regarding the apartments. If you have any questions, please don't hesitate to give me a call - Chuck

1. Initial construction would be 200 beds. The idea of two phases of 100 each seems to me to be too small to address the demand.
2. We prefer the Glimmerglass site.
3. Based upon our group's discussion and the focus group comments, I think the following would be the desired configuration of the apartments:
 - all single bedrooms
 - four bedrooms per apartment
 - washer/driers in each apartment (requires a thorough review of pros and cons of a laundry room replicated six times versus once per building)
 - large closets
 - bedrooms sized to accommodate full sized beds
 - kitchenette / living rooms space combined. Perhaps separated by an island with stools
 - secured personal storage in the building for large items
 - bicycle storage/parking in building
 - tech connections in bedrooms
 - air conditioning
 - one bathroom / two residents
4. Students in focus group preferred a quad type arrangement that attracted group activity outside buildings but still desired privacy.
5. Parking lot configuration preferred was option A from the site plan. One space per resident with some extras for guests. Shuttle access desired.
6. Community building for office, modest recreation space (pool and ping pong, etc.), mail, modest study/meeting and programming space if the apartment was too noisy, food vending machines. Complex would rely upon other buildings for large meeting space, prepared food facilities and exercise facilities. Review of this should include considerations for cost and supervision. Perhaps this space should be part of an apartment building rather than a stand alone structure.
7. It is unlikely these buildings would be used for summer activity other than student residence. Conference facilities will focus on Johnson/Riggs/Sheldon.
8. Maximum of three stories. Concern about requiring residents to carry belongings upstairs.
9. Ground floor apartments for persons with disabilities.
10. We would like to consider joining the buildings in some fashion that would allow movement within the complex and for perhaps two elevators to serve the complex.
11. We have not seen a building design/look that we like. We want a residential look with pitched roofs, construction that would have a 30/40 year life, is environmentally sensitive and utility efficient.
12. We do not desire porches, balconies or decks.



November 9, 2005

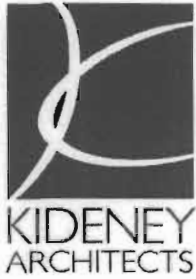
Re: SUNY Oswego – Student Housing
Feasibility Study
KA No. 2005 017

MEETING MINUTES

Minutes of a meeting for the above project, held at Facilities Planning, Wilber Hall, SUNY Oswego, on November 4, 2005. (Prepared by Joseph Lenahan.)

Attendees:	Chuck Weeks	Residence Life - SUNY Oswego
	Jerry Desantis	Facilities Services - SUNY Oswego
	Tom Simmonds	Facilities Design - SUNY Oswego
	Jim Scharfenberger	Student Affairs - SUNY Oswego
	Glenn Pawloski	Kideney Architects
	Joe Lenahan	Kideney Architects

1. The purpose of the meeting was to review the preliminary space program which was revised to incorporate comments and feedback from the focus group meeting, conceptual plans for typical apartment units, options for grouping the units, building floor plans including apartments, resident manager unit, and community spaces. A site plan concept illustrating the scale of parking and site circulation, and several image sketches depicting architectural massing options were also presented for discussion.
2. The program has been revised to reflect comments from the focus group meeting. Typical apartment unit will include four single bedrooms and two bathrooms. Bedroom size has been increased to accommodate use of full size (double) bed. Typical unit including (4) bedrooms, (2) bathrooms, living, kitchen & dining areas, laundry (or storage space) and utility space will be approximately 1510 sf in area.
3. The resident manager's unit is envisioned to be a similar area and footprint, and will be comprised of a (2) bedroom apartment with an adjoining area to serve as the resident manager's office and the mailroom. It is anticipated that there would be only one resident manager's unit.
4. Community spaces identified in the program include: study lounges and at least one multipurpose recreation / meeting room which will include a small kitchen for group dining or social events. Provision of space for laundry is depicted in two different ways in the plans; Option 1 plans indicate a space to accommodate a single washer and single dryer in each apartment unit;



Option 2 plans indicate multiple laundry rooms – one laundry room with 2 washers and 2 dryers per four apartments, anticipating that the laundry rooms also function as a social space fostering interaction of residents.

5. The typical unit presented is organized to provide a public zone including the living, kitchen and dining areas, and a more private zone for the bedrooms and bathrooms. The plan is also organized to limit the glazing to two adjacent exterior walls of the unit to facilitate clustering the units in groups of four.
6. Two options for a two-story, 16-apartment building (64 beds) were presented. Option 1 provides apartment units at each side of a double loaded corridor; laundry facilities are within the units and social / community spaces are centralized. Option 2 plan is splayed to create a wedge-shaped circulation / community space; laundry facilities and study lounges are distributed in the wedge-shaped space near primary entry points.
7. The site concept plan is organized to take advantage of the flattest portions of the site and avoid the wetland areas. Three buildings of 16 apartments each (total of 192 beds) are arranged in an arc at the north edge of the existing vegetation. The proposed buildings and associated parking areas extend into an area of dense scrub and trees. There is sufficient area with gentle topography to add a fourth building of 16 apartments (64 additional beds) if future expansion is desired.
8. A parking capacity of 234 cars is indicated to support 192 residents, allowing approximately 20% for visitor spaces; the parking is subdivided into six areas of 39 spaces each to reduce the apparent scale of the parking. Access to the street is provided at two points. The configuration of the parking is a loop; turning radius of the campus shuttle bus, fire department vehicles and service vehicles will be investigated in more detail to ensure access.
9. Three alternative architectural massing concepts for the typical 16-apartment building were presented for discussion. The alternatives were categorized by Jerry Desantis as traditional (option 1), contemporary (option 2) and deconstructionist (option 3). All options included sloping roofs in various forms over portions of the plan, to emphasize smaller scale components of the building. Option 1 (traditional) was generally preferred and should be developed in more detail, including representation of materials, for further discussion.



10. During the discussion of the concept plans, site and building images, the following additional comments were recorded:

- Double hung or awning windows are preferred, no casements or sliders.
- Materials should be selected for durability and quality, would like to avoid “cheap” feeling seen at student apartments at other campuses. Exterior materials selection should consider masonry, metals and possibly precast concrete.
- Sloped roof material envisioned as standing seam metal, asphalt shingles if necessary for cost purposes. The gable ends illustrated are quite tall; the massing should be studied further to determine if some portions of the roof could be hipped to reduce the scale. Kideneey felt vertical scale is desirable at some elements, especially for a 2-story building with a very long footprint.
- Centralized / multiple shared laundry facilities are preferred over providing them in each unit. Laundry facilities are de facto social spaces and should be large enough to include tables and chairs.
- The site concept should be studied to make the arrangement of buildings more natural and responsive to the site; the arc seems rigid.
- The arrangement of buildings should also be studied to determine the impact on the view of the site from the Campus and from the Main Drive. The view of the trees / woods is very desirable; can the buildings be pushed back somewhat to provide a view of the buildings that is filtered by trees in the foreground?
- The “splayed” plan, which creates space at the center for study and social spaces, is preferred over the double loaded corridor; the “traditional” image / massing concept should be developed using this plan.
- The image of the community facilities / entrance located at the center of the plan must be studied.

11. Additions to these minutes are welcomed and encouraged to ensure that all relevant thoughts on the new student housing are considered. Please forward any additions or corrections.

Respectfully submitted,

Joseph Lenahan

Joseph Lenahan, RA
Executive Associate

copy: Tom Simmonds – Facilities Design, for distribution to attendees.