School of Education, Wilber Hall Phase III

Schematic Design Report

State University College at Oswego

Oswego, New York

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Preface

In November 2015, Chiang O'Brien Architects were engaged by the State University of New York College at Oswego to assist with the Wilber Hall School of Education Phase III project. As indicated in the Request for Qualifications, "The project would include interior and exterior renovation of the 3-story (tower) portion of the building and provide for General Construction, Hazardous Materials Abatement, HVAC, Electrical, Plumbing, Fire protection, Fire Alarm, and IT system designs along with the correction of ADA Accessibility barriers. The space to be designed is approximately 32,000 gross square feet (3 floors plus occupied basement level). Pursuit of all available NYSERDA incentives and LEED Gold certification shall be included."

In recognition of the project's budget constraints, The Schematic Design documents present a Basic Scope of Work covering essentials of the programmatic needs and building systems improvements, with Alternate Scopes of Work for desired improvements that are additive to the Basic Scope. The details of each level of scope are laid out in the narratives in this report, but in general terms the Basic Scope includes improvement to the building envelope and mechanical/electrical systems, along with total interior renovation of the second and third floors. The Alternate Scope includes programmatic alterations to the basement and first floor, and introduction of additional windows in the building exterior.

The following participants have been actively engaged in this process:

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Architectural Design

Existing Conditions

Wilber Hall was designed in 1963 by Lorimer Rich, a 1914 graduate of Syracuse University whose most noted work was the Tomb of the Unknown Soldier in Arlington National Cemetery, a commission he won in a nationwide competition. Rich began his professional career with the prestigious firm of McKim, Mead, and White, before leaving to start his own firm in New York City in 1928. His work included many public buildings, as well as campus projects, including buildings at Syracuse University and the State University College at Oswego. A library building near Wilber Hall at Oswego, which Rich designed in 1958, was later renamed in honor of his sister, Grace Ellingwood Rich, an Oswego alumna.

Wilber Hall was designed as an addition to Park Hall, the industrial arts building, and the two were linked by a connector bridge on the second and third floors. Wilber Hall is a simple, brick-clad, three-story block with a perpendicular, one-story wing attached through a lobby on the north side. The scope of this project is limited to the three-story south wing.

The building's exterior walls are masonry with nominal 4-inch face brick, 6-inch concrete masonry unit (CMU) back up, 1-inch air space, and 4-inch CMU interior wythe with asbestos-bearing plaster finish. There is asbestos-bearing vermiculite fill insulation in the air space, and the assembly has no air or moisture barrier. The opaque wall coefficient of transmission (U-value) is approximately 0.23.

The existing windows, which account for about 10 percent of the total wall surface, are original, with non-thermally-broken extruded aluminum frames and single pane, ¼-inch-thick plate glass. The configurations are a combination of fixed and operable (awning) sash. The U-factor of these existing windows is presumed to be 0.98, which is the equivalent of R-1. Heat flow through these windows is nearly unimpeded, and the poorly sealed operable sash do little to check infiltration. The solar heat gain coefficient of the clear monolithic glass is presumed to be 0.82, which places an excessive solar load on cooling.

The roof is internally drained and surrounded by a precast concrete cornice that extends outward 2 feet beyond the face of the wall. The original built-up roofing has been replaced with a single-ply membrane, apparently EPDM, which is scheduled for replacement as part of this project.

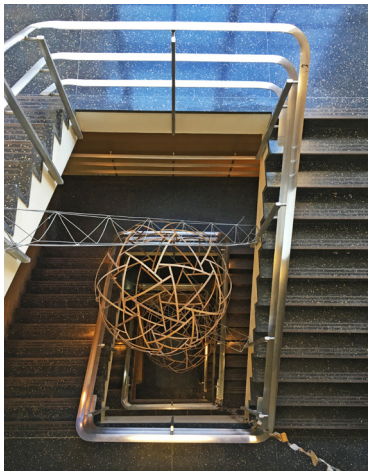
Although the building's exterior brickwork is generally plain, there are a number of masonry motifs and devices that add complexity. One is a medallion of two overlapping brickwork squares, 21 inches on a side, each comprising 5 headers in 8 rows, corbeled 1½ inches and 3 inches out from the face of the wall. This motif repeats in several locations on each of the façades, adding visual interest to otherwise blank areas of wall. A second device is the use of 12-inch square clay tile flue liners on their sides in a 3 by 4 grid, with two courses of brick between them, forming a masonry grille. The top row of tiles connects to a fresh-air intake within the wall, while the others are just decorative blanks. These grilles appear only on the south elevation, at the first floor of the three wider bays.

The structural grid is expressed on the long south façade by salient masonry pilasters at the column lines, 23'-4" on center, with non-structural pilasters placed at the midpoints between certain column lines. The central column is not expressed by a pilaster on the façade, setting up a rhythm of *A-A-B-A-**B**-A-B-A-A*, where *A* equals 11'-8" and *B* equals 2*A*. The original fenestration was limited to full-width windows in the *A* bays, excluding the two end bays, giving four equally spaced vertical zones of windows. New windows were added to the central bay of the first floor in the 2006 renovation project. The west façade is similar to the south, but, being narrower, is made up of eight *A*-bays, four of which

have fenestration, and the east elevation has the same pier pattern but with only two bays having windows. A former overhead door on the first floor, south end of the east side has been converted into a bay window. The north façade is similar to the south, but is composed entirely of *A*-bays, with fenestration in five contiguous bays and three without. The protruding Stair 1 obscures the eastern three bays, and an elevator occupies the northeast corner. Any introduction of new window openings into these façades should be designed with sensitivity to the underlying geometry.

Interior finishes on the upper floors are original. The main corridor, connecting the two stairs along the north side of the building, has structural glazed tile walls with bullnose corners and a cove base profile, and polished, full-depth terrazzo floors. These institutional-quality materials are generally in good condition and should be maintained. Corridor doors and frames are generally hollow metal, and most of the doors are too narrow to comply with accessibility standards. The rest of the flooring is a combination of wood, ceramic tile, vinyl-asbestos tile, and carpeting, all of which will be demolished/abated. The other partitions are either gypsum drywall or concrete masonry units, and all will be removed/abated. Ceilings on these floors will be demolished, along with the fireproofing on steel beams and deck, as part of the abatement contract.

There are two existing stairs in the building, Stair 1 and Stair 2. The main stair, No. 1, has a cast concrete carriage with precast terrazzo treads and risers and terrazzo landings. The tread nosings have abrasive strip inserts, but not in a contrasting color for the visually impaired. Where this stair continues to the penthouse it changes to a steel-framed carriage with precast terrazzo treads on metal pans with painted metal risers. Stair 2 is a steel pan stair with concrete-filled pans and rubber treads and risers. The railing systems are extruded aluminum, similar to Blumcraft of Pittsburgh Post 270/Rail 511/Bracket WBN, with a handrail at 3 feet above the floor, an intermediate rail at 2 feet, and a second intermediate 1 foot above the floor at the landings. The railing profiles are characteristic for the building's vintage, but are not in compliance with current standards. Section 705.2 of the *Existing Building Code of New York State* provides an exemption from compliance with the means of egress requirements of the code for buildings that were constructed in compliance with the codes in effect at the time.



A major renovation in 2006 converted the first floor into offices and classrooms for Curriculum & Instruction (C&I), as well as the department office and an advisement center. The renovations included men's and women's toilet rooms which will need minor adjustments to be brought into compliance with the accessibility requirements of ICC/ANSI A117.1-2003.

The north wing was renovated and an addition was constructed in 2011. The one-story addition lies along the west wall of the north wing, and extends to the south wing, creating new spaces for a wood lab and a manufacturing systems lab. The basement of the south wing also underwent renovations for classroom spaces.

In 2013 a 3-story connector was constructed around the existing bridge between Wilber Hall and Park Hall, linking the buildings and creating a new entrance identity for the School of Education.

Architectural Design (continued)

New Work

The project encompasses the third and final phase of additions and alterations to the School of Education facilities. The basic scope includes a complete gut renovation of the second and third floors of Wilber Hall, with minor reconfiguration of the first floor, which was renovated in 2006. Exterior scope includes new roofing, new windows throughout, masonry repairs to the brickwork, and thermal improvements to the envelope on the second and third floors. Alternate scope includes more extensive renovation of the basement and first floor, as well as the introduction of additional window openings in the exterior walls.

Interior abatement of hazardous materials will be largely completed under separate contract, with only abatement of materials not accessible prior to the work of this contract remaining, e.g. sealants related to windows.

Basic Scope: Envelope

Roofing: The existing roofing membrane system will be completely removed and replaced with a new system consisting of vapor retarder, 4½ inches in multiple layers of adhered polyisocyanurate board insulation, gypsum cover board, and modified bitumen membrane. This system will provide a long-term thermal resistance (LTTR) of 25.7, which equates to a U-factor of 0.039. The energy model can be used to investigate whether this is optimal, or a different insulation thickness should be applied.

Walls: The existing, uninsulated masonry walls comprise 90 percent of the exterior vertical envelope, and have an estimated assembly R-value of 3.2, and a U-factor of 0.31. On the first floor, an earlier renovation added 1½ inch rigid insulation between furring under gypsum drywall, for an improved assembly R-value of about 12.

Interior insulation assembly options should be approached with caution. The existing mass wall manages moisture by providing a reservoir effect and drying slowly to the interior and exterior, with a temperature gradient within the wall that spans more or less linearly from outside to inside through the thickness of the wall. Once thermal insulation and an air barrier are added to the inside surface, all drying will be forced to the outside and the temperature gradient will be more constant throughout the wall thickness.

For an interior insulation strategy, drywall on a steel stud partition with batt insulation is not recommended. Leakage of indoor air through the system to the cold interior face of the masonry would likely cause condensation and potential mold growth within the wall. This condition can also exist with rigid board insulation applied to the surface between furring. A more successful approach is to spray airtight insulating foam directly onto the interior surface of the masonry wall. This provides the most effective air barrier achievable in a retrofit application, and controls the air leakage that is responsible for most moisture transport and condensation within a wall assembly. High-density, closed cell spray polyurethane foam (ccSPF) is the appropriate material for this application, in a thickness of around 2 inches. This application should be treated as continuous insulation, with metal framing to support interior finishes placed inboard of the ccSPF. Additional insulating value can be achieved with mineral fiber batts placed between the studs. To minimize thermal bridging, the studs should span from the floor to the overhead structure and not be braced back to the masonry wall.

The existing plaster on the interior surfaces of the exterior wall above the first floor contains asbestos and will have to be abated, exposing the concrete masonry behind. One strategy for the abatement might avoid having to chip the plaster away from the substrate by removing the entire 4-inch inner wythe of masonry along with the plaster, and then abating the vermiculite insulation in the 1-inch wall cavity. The void would then be replaced with the ccSPF and stud system described above. This approach would result in a wall assembly with an R-value of 25, for a U-factor of 0.04. The same thermal performance could be achieved without removing the inner wythe of masonry, but at the cost of losing floor space to the

thickness of the stud wall placed inboard of the masonry.

It should be noted that the efficacy of adding insulation to the exterior walls is compromised by the configuration of the existing construction, which has the floor slabs and supporting spandrel beams fully embedded in the masonry walls. Each of these conditions forms a continuous thermal bridge around the entire perimeter of the floor, bringing direct thermal conductance between the interior and exterior environments. In any case, the cost effectiveness must be assessed by weighing the added cost of construction against the value of energy cost savings predicted by the energy model.

Windows: The three factors to consider in improving the performance of window areas are thermal transmission (U-factor), infiltration (air-tightness), and solar heat gain coefficient (SHGC). Replacing the existing windows with high-performance, thermally broken aluminum frames and low-e, argon-filled, insulating glass will significantly improve the thermal performance of the building envelope. A new storefront system should achieve a U-factor of 0.34 (equivalent to R-3), a maximum air infiltration rate of 0.06 cfm/sq. ft. of fixed glazing, and a solar heat gain coefficient of 0.30 or less. This last component, the SHGC, should be evaluated in the energy model, as the small area of glass, accounting for only 10 percent of the wall area, may perform better overall as a winter solar heat contributor through a higher SHGC.

Alternate Scope: Envelope

Where the base scope includes replacement of all existing windows, the alternate scope covers three levels of adding more window openings to the exterior walls. With existing windows accounting for only 10 percent of the exterior wall area, considerably more daylight could be introduced into the interior with the addition of more windows. The additional scope is presented in three additive alternate levels.

Alternate 1: Add windows, similar to the first floor windows installed in 2006, to the center bay of the south façade on the second and third floors. Add windows, similar in proportion to the existing windows, in the east façade of the second and third floors, one bay north of the south end.

Alternate 2: In addition to the Alternate 1 windows, provide windows similar to the existing windows in every bay of the first, second, and third floors of the south façade (18 additional window openings).

Alternate 3: In addition to Alternates 1 and 2, provide windows in the remaining bays of the first, second, and third floors of the east and west façades.

Basic Scope: Interior

With only the two stairs and their connecting main corridor remaining intact after the demolition and abatement, the second and third floor interior redevelopment will involve all new partitions, ceilings, floor finishes, doors, frames, and hardware. On the basement level, the basic scope will be limited to the area of the Wellness Center, and removal of ceilings throughout to facilitate abatement of the fireproofing, installation of new fireproofing, and installation of fire protection, basic mechanical distribution system, and new ceilings and lighting. The basic scope on the first floor includes selective removal and re-installation of ceiling areas to facilitate installation of new fan coil units, as well as renovations for office at the west side and a central Commons space with four adjacent offices.

Partitions and Doors: Corridor walls in fully sprinklered buildings of Groups A and B occupancy are not required to be fire-rated. The design will introduce extensive areas of glass to transmit light to the inner areas of each floor. Existing narrow doors will be replaced, and all new doors will be wood with large glass panels, 3-feet wide, with lever-handled hardware for accessibility.

Architectural Design (continued)

Ceilings: After new mechanical, electrical, plumbing, and fire protection systems have been completed, new suspended ceiling systems will be installed throughout, with high-performance acoustical panels. The target noise reduction coefficient (NRC) will be 0.90.

Floors: Floor finishes will include carpet tiles in noise-sensitive areas and vinyl enhanced resilient tiles in higher traffic areas.

Stairs: The stair handrails do not comply with current code requirements, but they are allowed to remain under Exception 2 of Section 705.2 of the *EBCNYS.* If it is desired to improve or replace them, it may be possible to modify the existing railings with additional components in the same mid-century modern style, or they could be completely replaced with a contemporary system. Additionally, Stair 2 (west) had ABM mastic in its flooring that will require abatement, and replacement with new resilient treads and risers.

Alternate Scope: Interior

Basement: The complete renovation of the basement includes removal of most of the walls and partitions, floor finishes, ceilings, doors and frames to create classrooms, the Wellness Center, and a central Commons.

First Floor Alternate 1: In this alternate, the area occupied by the Commons in the base scope is replaces by a classroom, and the offices are shifted to a different location.

First Floor Alternate 2: This alternate uses the same plan as the basic scope, but introduces an opening in the floor of the Commons to provide a physical connection with the similar space in the basement below. This atrium condition falls under Section 404 of the *BCNYS,* which requires a 1-hour separation between the atrium and adjacent spaces. As only two stories are connected, a smoke-control system is not required.

Existing Conditions

South façade.

Original and 2006 windows, first floor, south façade.

Southeast corner.

Southwest view, with Park Hall in background.

First floor break-out area.

First floor offices.

First floor main corridor (left) and secondary corridor (right).

Second floor corridor.

Schematic Code Analysis

Wilber Hall
School of Education Phase III
State University of New York at Oswego
Oswego, NY 13126

SUNY Project Number 100015

Code Review

The following codes and standards apply to the work of this project:

Building Code of New York State – 2010
Existing Building Code of New York State – 2010
Fire Code of New York State – 2010
Plumbing Code of New York State – 2010
Mechanical Code of New York State – 2010
Fuel Gas Code of New York State – 2010
Property Maintenance Code of New York State – 2010
New York State Commercial Energy Code – 2014 Supplement
Accessible and Usable Buildings and Facilities, ICC/ANSI A117.1 – 2003
State University Construction Fund Directive 1B-1, Building Codes – 2013
❖ *Indicates ICC Code Commentary*

Building Code of New York State

Chapter 3 Use and Occupancy Classification

303.1 Classrooms with 50 or more occupants are classified as Assembly Group A-3. Office areas, and classrooms of fewer than 50 occupants, are classified as Group B. Classrooms less than 750 sq. ft. in area are classified as Group B occupancy.

Chapter 5 General Building Heights and Areas

508.3 Mixed Occupancies
508.3.1 Accessory occupancies N/A because more than 10% of area of floor
508.3.2 Nonseparated occupancies comply with code for occupancy for each space. Allowable height 4 stories; area 46,500 square feet; based on A-3 occupancy, increased for sprinklers per Sections 504 and 506.

Chapter 6 Types of Construction

602.2 Presumed to be Type IA, protected steel frame and concrete floors; sprinklered. Structural drawings indicate: "All structural steel and deck shall have a 3-hour fire rating." Three-hour walls, floors, beams, and columns protected by sprayed fireproofing; 1½-hour roof protected by vermiculite plaster ceiling.

Chapter 10 Means of Egress

1004.1 Occupant Load

Occupant load based on occupancies and floor area per occupant from Table 1004.1.1.

1004.9 In multiple occupancies, egress requirements apply to each portion of building based on its occupancy. Where two or more occupancies share an egress system, the more stringent requirements apply.

Floor	Square Feet	Occupancy	Square Feet	Multiplier	Occupant Load	Stairway Width	Other Egress
Third Floor	11,720	B – Offices	10,670	1/100	107	21.4"	16.1"
		A3 – Assembly	1,050	1/20	53	11.0"	8.0"
Second Floor	11,720	B – Offices	10,670	1/100	103	20.6"	15.5"
		A3 – Assembly	1,050	1/20	53	11.0"	8.0"
First Floor	11,720	B – Offices	10,520	1/100	103	20.6"	15.5"
		A3 – Assembly	1,200	1/20	60	12.0"	9.0"
Basement	11,720	B – Offices	8,270	1/100	83	16.6"	12.5"
		A3 – Assembly	3,450	1/20	173	34.6"	26.0"
Total	48,880				735		

1005.1 The table defines the total means of egress width based on 0.20" per occupant for stairways and 0.15" per occupant for other egress components. Size multiple means of egress so that loss of any one means does not reduce the total available width to less than 50% of required capacity.
1008.1 Minimum/maximum door width: 32/48"
1009.1 Minimum stair width: 44"
1015.2 Separation of exits not less than 1/3 the diagonal dimension of the area served.
1016.1 Maximum travel distance to exit: Group A – 250'; Group B – 300'.
1017.2 Minimum corridor width: 44"
1019.1 Minimum number of exits *per story*: 2 for 1 to 500 occupants; 3 for 501 to 1,000.

Chapter 11 Accessibility

1103 Scoping Requirements
1103.2.2 Existing Buildings. *EBCNYS* Section 605 requires compliance with this Chapter for altered buildings.
1103.2.9 Equipment Spaces. Spaces frequented only personnel for maintenance, repair, or monitoring of equipment are not required to be accessible.

1104 Accessible Route
1104.3 Connected Spaces. Where a building or a portion of a building I required to be accessible, an accessible route shall be provided.
1104.4 Multilevel Buildings. At least one accessible route shall connect each accessible level in multilevel buildings.

1109 Other Features and Facilities
1109.2 Toilet and Bathing Facilities. Comply with *ICC/ANSI A117.1*.
1109.2.1 Unisex Toilet Rooms. Fixtures located within unisex toilet rooms shall be included in determining the number of fixtures provided in an occupancy.
1109.4 Kitchens and Kitchenettes. Where provided in accessible spaces, shall be accessible in accordance with *ICC/ANSI A117.1*.
1109.5 Drinking Fountains. Where more than 2 drinking fountains are required, 50% shall be for persons who use a wheelchair and 50% shall be for a standing person. Where 50% yields a fraction, it may be rounded up or down provided the total equals 100% of the required drinking fountains.
1109.6 Elevators: Passenger elevators on an accessible route shall be accessible.
1109.13 Controls, Operating Mechanisms, and Hardware. Where located in accessible spaces or along accessible routes, shall be accessible.

ICC/ANSI A117.1. 404.2.6 Door Hardware. Handles, pulls, latches, and locks shall have a shape that is easy to grasp with one hand and does not tight grasping, pinching, or twisting of the wrist to operate. ❖ Lever handle door hardware.

Chapter 29 Plumbing Systems

2902.1 Plumbing fixtures required:

		Water Closets			Lavatories			Water Fountain[a]	Service Sink[b]
Occupancy		First	Male	Female	First	Male	Female		
A-3	339		1/125	1/65		1/200	1/200	1/500	
Required			2	3		1	1	1	
B	396	50	1/25	1/25	80	1/40	1/40	1/100	
After First			1/50	1/50		1/80	1/80		
Required			5	5		4	4	4	
Total			7	8		5	5	5	4

[a] *PCNYS* Section 410 – Drinking Fountains: Bottled water dispensers may be substituted for not more than 50% of the required drinking fountains. Drinking fountains shall not be installed in public restrooms. See also *BCNYS* 1109.5.
[b] *PCNYS* Section 428 – Service Sink: Where public and employee toilet facilities are located in a central core, there shall be one service sink per floor. The service sink shall not be located within the toilet facility, but may be located in a locked janitor closet.

Existing Building Code of New York State

Chapter 4 Classification of Work

405 Alteration – Level 3
405.1 Level 3 alterations apply where work area exceeds 50% of the area of the building.
405.2 Level 3 alterations shall comply with the provisions of Chapter 6 and 7 for Level 1and 2 alterations, as well as the provisions of Chapter 8.

Chapter 6 Alterations – Level 1

602 Building Elements and Materials
602.1 Interior finishes, newly installed, shall comply with flame spread requirements of the *BCNYS*.

BCNYS Table 803.5: In A-3 and B occupancy, wall and ceiling finishes in exits and passageways of sprinklered buildings, footnote b, shall be Class C (flame spread 76-200, smoke developed 0-450).

602.2 New carpeting shall comply with radiant flux requirements of the *BCNYS*.

BCNYS 804.4, Exception: In A-3 and B occupancy, floor finishes of sprinklered buildings shall be Class II (critical radiant flux 0.22 watts/cm^2 or greater).

602.3 New work shall comply with materials and methods of NFPA 70 and the applicable provisions of the codes of New York State.

603 Fire Protection
603.1 Alterations shall maintain the level of fire protection provided.

604 Means of Egress
604.1 Repairs shall maintain the level of protection provided for the means of egress.

605 Accessibility
605.1 Comply with Chapter 11 of the BCNYS and ICC/ANSI A117.1 unless technically infeasible.

Exception 1: Altered element or space is not required to be on an accessible route unless containing a primary function.
Exception 2: Accessible means of egress required by Chapter 10 of *BCNYS* are not required to be provided in existing buildings.

605.1.2 Elevators. Altered elements of existing elevators shall comply with *ASME A17.1* and *ICC/ANSI A117.1*.
605.1.9 Toilet rooms. Where it is technically infeasible to alter existing toilet facilities to be accessible, an accessible unisex toilet is permitted, located on the same floor and in the same area as existing facilities.

605.2 Where an alteration affects the accessibility to a, or contains an area of, primary function, the route to the primary function shall be accessible and shall include accessible toilet facilities.

❖*An area containing a primary function is one in which a major activity for which the building is intended is carried out. For example … virtually all offices and work areas in a business building.*

Schematic Code Analysis (continued)

607 Energy Conservation
Alterations shall conform to Section 101 of the *NYSCEC*.

Chapter 7 Alterations – Level 2

701 General
701.3 All new construction elements, components, systems, and spaces shall comply with the requirements of the *Building Code of New York State*.

Exception 3: The length of newly constructed dead-end corridors shall comply with Section 705.6 (i.e. 35 feet, except where greater length permitted by *BCNYS*.) *BCNYS* 1017.3 allows 50-foot dead end corridors in B occupancy with sprinklers.

703 Building Elements and Materials
703.1 Requirements of this section are limited to areas in which Level 2 alterations are performed.
703.2.1.4 In Group A, provide 30-minute enclosure of vertical openings not exceeding 3 stories.
703.2.1.5 In Group B, no enclosure required in buildings protected by automatic sprinkler.
703.2.3 Stairways that are part of a means of egress shall, at minimum, be enclosed with smoke-tight construction.
703.4 Interior floor and ceiling finishes in exits in Level 2 work areas shall comply with *BCNYS*.

BCNYS Table 803.5: In A-3 and B occupancy, wall and ceiling finishes in exits and passageways of sprinklered buildings, footnote b, shall be Class C (flame spread 76-200, smoke developed 0-450).

703.5 Provide guards, sound existing guards to remain or new guards, complying with *BCNYS* wherever 30-inch change in floor level occurs; 42 inches high.

704 Fire Protection
704.2 Automatic sprinkler system is not required in Group B, but is in Group A occupancy.

However SUCF Directive 1B-1 requires full coverage of hydraulically designed sprinkler system in rehabilitated (gut rehab) buildings.

704.3 Standpipe system is not required in buildings where no work area is located more than 30 feet above or below lowest level of fire department access [third floor is 27.9' above first floor].
704.4 Fire alarm system is not required in Group A or B occupancy.

However SUCF Directive 1B-1 requires an automatic fire alarm and smoke detection system in rehabilitated (gut rehab) buildings, Level 3 alterations, and additions.

705 Means of Egress

705.2 Means of egress shall comply with the requirements of this section, EXCEPT:

2. "Buildings constructed in conformance with … codes in force before the effective date of this code shall have exits maintained and in compliance with the code in effect at the date of substantial completion."

Under this provision, existing means of egress being maintained, such as the stairs, are presumed compliant with the code at time of construction an are acceptable without change.

705.3 Minimum number of exits shall comply with *BCNYS* based on occupancy and occupant load (see page 2).

705.4 Two egress doorways are required in rooms with occupancy *greater than* 50 or travel distance to exit exceeding 75 feet *[conflicts with BCNYS 1015.1 which sets maximum occupants at 49 for one egress doorway]*.
705.4.2 In rooms with occupancy *greater than* 50, doors shall swing in direction of exit travel.
705.4.3 Doors into stairs and exit passageways at grade shall be self-closing.
705.4.4 In Group A with occupant load greater than 100, exit doors shall have panic hardware.

705.5 Openings in corridor walls where corridors are not required to be rated by the BCNYS are not required to comply with this Section.

BCNYS Table 1017.1: Corridor walls not required to be fire-resistance rated in A and B occupancies in building with sprinkler system.

705.6 Dead end corridors shall not exceed 35 feet in any occupancy, nor 50 feet in B occupancy in building with sprinkler system. Maximum length of existing corridors in other than A occupancy buildings with sprinklers is 70 feet.

705.7 Means-of-egress lighting is governed by requirements of Chapter 8.

705.8 Exit signs are governed by requirements of Chapter 8.

705.9 Handrail required on one side for each stair run; both sides for stair more than 66 inches wide. If absent or in danger of collapsing, provide new handrail complying with design requirements of *BCNYS*.

❖ Although the text of the code states "Every required exit stairway … [that] is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails on at least one side," the Commentary states "*Complying* handrails must be installed in all required exit stairways that serve the work area." This would suggest that non-complying handrails that exist would have to be replaced, though the Code does not explicitly state that.

705.10 Guards required where floor more than 30 inches above adjacent surface. If absent or in danger of collapsing, provide new guards complying with design requirements of *BCNYS*.

❖ The Commentary for handrails also applies to guards.

705.11 Elevators shall not be used as means of egress, except as accessible means where allowed by *BCNYS*.

706 Accessibility
706.1 Comply with Section 605.

707 Structural: Refer to Section 807.

709 Mechanical
709.2 In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than 5 cfm per person of outdoor air and not less than 15 cfm of ventilation air per person.
709.3 All newly introduced … equipment that produce fumes, vapor … and microbial contaminants … shall be provided with local exhaust.

710 Plumbing
710.1 Where the occupant load of the story is increased by more than 20%, provide plumbing fixtures on the story to comply with the increased load according to the *PCNYS*.

711 Energy Conservation
See 607.

Chapter 8 Alterations – Level 3

801 General
801.2 Comply with all of Chapters 6 and 7. Requirements of Sections 703, 704, and 705 apply whether or not they include exits and corridors share by more than one tenant, and regardless of occupant load.

803 Building Elements and Materials
803.1 Existing stairways part of a means of egress shall be enclosed according to 703.2.1.
803.3 Interior finishes in exits shall comply with 703.4.

804 Fire Protection
804.1 Automatic sprinkler systems where required by 704.2.
804.2 Fire alarm and detection where required by 704.4.1 and 704.4.3.

805 Means of Egress
805.1 Comply with 705.
805.2 Means of egress lighting shall comply with *BCNYS*.
805.3 Exit signs shall comply with *BCNYS*.

807 Structural
807.1 Applies to Level 3 alterations that include structural alterations.
807.2 Alterations shall not reduce structural strength below *BCNYS* levels.
807.3 New members comply with *BCNYS*.
807.5 Applies to Level 3 alterations that increase seismic base shear more than10%, or reduce shear capacity by more than 10% because of alterations.
807.5.1 Engineering evaluation of adequacy required.
807.5.2 Where more than 30% of floor and roof area involved in structural alteration, provide analysis demonstrating compliance with *BCNYS* for seismic and wind loading.
807.5.3 Where not more than 30% of floor and roof area involved in structural alteration, provide analysis showing that altered building complies with loads applicable to the original construction.
807.6 Where gravity loading is increased on roof or floors, all members affected shall meet *BCNYS* requirements, except where element stress not increased by more than 5%.

New York State Commercial Energy Code

Note: The Energy Conservation Construction Code of New York State – 2010 was amended in November 2014 (the 2014 Supplement) and the revised code took effect January 1, 2015. In addition to other changes, the supplement split the old code into two separate codes for residential and commercial projects, and updated the ASHRAE 90.1 reference standard to the 2010 version.

Chapter 1 General Requirements

101 Scope and General Requirements
101.4.1 Existing Buildings: Code does not require the removal, alteration, or abandonment, nor prevent continued use of, existing buildings lawfully in existence when code was adopted.
101.4.3 Additions, alterations, or renovations to existing building, system, or portion thereof shall comply to code for new construction, without requiring unaltered portion to comply. Addition shall comply if:
1. the addition alone complies, or
2. the existing building and addition considered as a single building comply.

Exceptions: The following need not comply with the code, provided building energy use is not increased:

2. Glass only replacements in existing sash, provided new U-value and SHGC are equal to or lower than before replacement.
3. Alterations, renovations, or repairs to roof/ceiling, wall, or floor cavities having full depth insulation with minimum nominal value of R-3.0 per inch.

Schematic Code Analysis (continued)

4. Alterations, renovations, or repairs to walls and floors without framing cavities and with no new cavities being created.
5. Reroofing where neither sheathing nor insulation is exposed.
6. Vestibule not required at existing doors separating conditioned space from exterior; however, existing vestibule separating conditioned space from exterior shall not be removed.
7. Alteration that replaces less than 50% of luminaires in a space, provided alteration does not increase installed lighting power.
8. Alteration that replaces only bulb and ballast in existing luminaires, provided alteration does not increase installed lighting power.

101.4.5 Any nonconditioned space altered to become conditioned requires full compliance.
101.5.1 Compliance Software: USDOE COMCheck, or other software approved by NYS.

Chapter 2 Climate Zones, Design Conditions, Materials, Equipment, and Systems

303 Materials, Systems, and Equipment
303.1 Table 301.1: Oswego County – Climate Zone 5.

Chapter 5 Commercial Energy Efficiency

501.1 Referenced standard is ASHRAE 90.1 – 2010

Abatement Design

The purpose of this Basis of Design is to determine how asbestos-containing materials and other environmental issues will impact the proposed demolition/renovation work. The presence, location, and quantities of these materials must be identified to allow for proper planning and budgeting of the project and to secure the safety and health of workers and the public during the project.

Asbestos-Containing Materials

A comprehensive asbestos survey of the building within the project limits has been performed. Asbestos surveys have been conducted by Watts in 2007, Fisher Associates in 2010, and Bergmann Associates in 2014. All asbestos testing was performed by NYSDOL certified asbestos inspectors. The samples were analyzed using polarized light microscopy (PLM) under NYSDOH Method 198.1, Stratified Point Count with the exception of samples classified as "non-friable organically bound" (NOB) and ceiling tiles. Ceiling tiles and NOBs were analyzed using NYSDOH Method 198.6, which includes gravimetric reduction (GR), and then PLM for residues greater than 1% after GR. Ceiling tiles and NOBs with results of less than 1% after PLM were further analyzed under NYSDOH Method 198.4 by transmission electron microscopy (TEM).

Several different materials have been identified that are classified as asbestos-containing materials (ACM). A material is considered asbestos-containing if it contains greater than 1% of asbestos. Several of the materials that have been identified to be ACM have been previously removed as part of asbestos abatement projects for Phase I and II of this project. The following ACMs are anticipated to be abated as part of this project (Phase III):

- Window caulk around perimeter of all windows – approximately 8,261 linear feet.
- Window glazing compound associated with the sashes for all windows – approximately 8,261 linear feet.
- Sprayed-on fireproofing in the basement – approximately 17,000 square feet.
- Sprayed-on fireproofing debris inside concrete block walls and throughout the basement.
- Pipe and/or duct insulation inside mechanical chases on first floor (have been capped at basement and second floor).
- Pipe insulation inside plumbing chases that will be demolished.
- Exterior wall cavity where new wall penetrations (windows) will be added.
- Plaster (base coat) walls that will be demolished in the basement – approximately 6,000 square feet of plaster walls.
- Flex duct connectors associated with mechanical equipment in basement – approximately 10 square feet.
- Tan mastic on metal duct insulation hangers in basement – approximately 5 square feet.
- 4 by 8 foot Transite panels in basement – approximately 10 square feet.
- 9 by 9 inch floor tile and associated mastic in various areas of the basement – approximately 1,790 square feet.
- Gray caulk in seams of concrete roof panels – approximately 6,100 linear feet.
- Gray caulk running along the top of the metal roof flashing – approximately 530 linear feet.
- Vibration dampeners associated with the HVAC equipment in the penthouse – 20 dampeners.
- Transite pieces associated with the elevator control panels in the penthouse – 2 panels.

Further investigations will be ongoing throughout the design process. Additional suspect materials may be identified and will be incorporated into the design documents as necessary. The extent of the identified ACM will be more accurately delineated as the design progresses.

Abatement Design (continued)

Lead-Based Paint

Representative X-ray fluorescence spectrum analyzer (XRF) testing will be performed to determine which building components are coated with lead-based paint (LBP) or are lead-containing. When utilizing an XRF, the regulatory level for LBP is 1.0 mg/cm^2.

For the purposes of this project, the Occupational Safety & Health Administration's (OSHA) Lead in Construction Standard (29 CFR 1926.62) applies. This standard applies to all construction work where an employee may be occupationally exposed to lead. Construction work is defined as work for construction, alteration, and/or repair, including painting and decorating. It includes but is not limited to the following:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- Installation of products containing lead;
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- Maintenance operations associated with the construction activities.

No LBP or lead-containing materials have been identified by the previous testing. All Contractors will still be responsible for protecting their employees from occupational exposure to lead hazards.

PCB Caulk/Sealants

Representative samples of caulks and sealants within the project limits will need to be tested for the presence of PCBs. The Environmental Protection Agency (EPA) regulates PCBs and considers any debris generated from construction materials manufactured with PCBs derived from building renovation projects with a concentration of greater than 50 parts per million (ppm) "PCB non-remediation waste". The Toxic Substances Control Act (TSCA) regulations (40 CFR Part 761) prescribe requirements for the proper management of PCB materials, including their handling and disposal. PCB bulk product waste at concentrations greater than 50 ppm must follow specific storage, transport, and disposal requirements.

The analytical results for PCBs indicate that the concentration of PCBs present in the window glazing compound for the lobby windows contains PCBs above 50 ppm. Therefore, special handling and disposal related to PCBs is required. No other caulks or sealants have been identified that contain PCBs above 50 ppm.

Other Hazardous Materials/Waste

An inventory of hazardous materials/hazardous waste will need to be performed. The following materials will likely need to be properly removed and disposed as part of this project:

- Fluorescent lamps and ballasts
- Oils and fluids associated with mechanical equipment
- Batteries that are within the project limits (exit signs, emergency lights, generators, compressors, etc.)
- Mercury type thermostats, thermometers, and/or switches
- Fire extinguishers, miscellaneous containers of chemicals, solvents, cleaning supplies, oils, etc.

Recommendations

New York State and federal regulations require all identified ACM that will be disturbed as a result of the renovation/demolition work to be removed by a licensed asbestos abatement contractor. All asbestos abatement work shall be conducted in accordance with New York State Industrial Code Rule (ICR) 56 and federal OSHA and EPA regulations pertaining to asbestos. In addition, state and federal transportation regulations will need to be followed.

Additional investigation will be required as the scope of renovation work is more accurately defined. It is anticipated that additional testing may be performed in order to more accurately delineate the abatement scope of work.

LBP should have no impact on the cost of the project. There are currently no regulations in effect that mandate the removal of the LBP as part of the renovation/demolition work. Typically, LBP is removed as part of the renovation project, e.g. walls with LBP are demolished to allow for reconfigurations, and this work is not considered lead abatement. The removed building components will be disposed of as construction and debris waste.

The PCB caulk/sealant removal will be performed in a manner similar to asbestos abatement. The PCB-containing window glazing compound will be disposed as hazardous waste according to New York State regulations.

All fluorescent lamps, light ballasts, mercury thermostats/switches, batteries, ozone depleting substances, containers of oils, etc., will be properly containerized and disposed of or recycled in accordance with state and federal regulations.

Structural Design

Existing Facility

In 2011, renovations were performed in the north wing and an addition was added to the west side of the north wing. The addition has a moment frame lateral system designed to resist current code-required seismic loads. It appears that the structure is independent of the existing building and in most locations there is a 2-inch joint between the addition and the existing building.

The current proposed alterations will be limited to the south wing of Wilber Hall, which is three stories, with a full basement and flat roof with a penthouse. There are no building expansion joints for the original structure.

The following are reference elevations for the three-story south wing:

- Basement: 303.0'
- First Floor: 316.0'
- Second Floor: 330.0'
- Third Floor: 343.89'
- Roof: 357.99'

Available Information

The findings of this report are based on review of the existing building drawings, dated June 3, 1963, prepared by Lorimer Rich and Associates, and observations made on March 4 and March 9, 2016. Removals were performed during our observations.

Structural Systems

Foundation: The building foundation is a spread footing system, designed using an allowable bearing pressure of 4,000 pounds per square foot (psf) on undisturbed soil. The basement floor is a 5-inch, mesh reinforced, concrete slab on grade.

Upper Floors: The first through third floors are steel framed with composite wide flange girders and beams supporting a concrete slab on 3-inch metal deck. The slab thickness is typically 6¼-inches; however, this varies throughout.

The architectural drawings indicate that there are header ducts through the floor system. The layout of the in slab electrical wiring and floor receptacles is shown in the existing electrical Drawing 61/407.

Roof: The roof is steel framed with wide flange girders and bar joists supporting a 1½-inch metal roof deck. The architectural drawings indicate there is concrete fill above the roof deck. At the perimeter of the roof, there is a concrete slab that forms the 2-foot roof overhang.

Fire Rating: The structural drawings indicate that all structural steel and metal deck have a 3-hour fire rating. Therefore, the steel and decks must be fireproofed to achieve this rating.

Exterior Wall System: The makeup of the exterior wall system is described in the Architectural Design narrative. The exterior columns are located 5 inches from the outside face of brick; however, the perimeter girders are offset from the columns. The offset dimension varies; it is 2¾ inches along the north and south walls, and 3⅛ inches along the east and west walls. The lintels supporting the block and brick over window openings are hung from the perimeter steel beams.

Along the perimeter, the steel building columns are centered in the masonry pilasters that project 8 inches beyond the face of the building. Therefore, the dimension from the centerline of the columns to the outside face of brick is 13 inches. The column sizes around the perimeter are typically W10x sections, which places the face of the column approximately 8 inches behind the outside face of brick. From the architectural drawings, it

appears the projecting pilasters are constructed as 8 inches of solid brick, so the column flange would be tight to the back face of the brick.

Lateral System: There is no defined lateral system noted in the existing building drawings. The steel framing is built tight to the exterior masonry walls and the interior partitions are typically 6-inch or 4-inch masonry. In 2006, the first floor was renovated and the interior masonry partition walls were removed at this level. In 2015, it appears that additional masonry walls were removed on the second and third floors; however, full documentation of these changes was not available for review. It is likely that originally the exterior and interior masonry walls provided the lateral strength of the building. It is unclear whether the impact of removal of the masonry partitions was reviewed during the 2006 and 2015 renovations.

Material Strengths and Design Loads: The following material information and design live loads were provided in the existing building drawings:

Material Strengths:

- 28-day concrete compressive strength, f'c: 3,000 psi.
- Reinforcing: Intermediate Grade; 20 ksi
- Structural Steel: A36

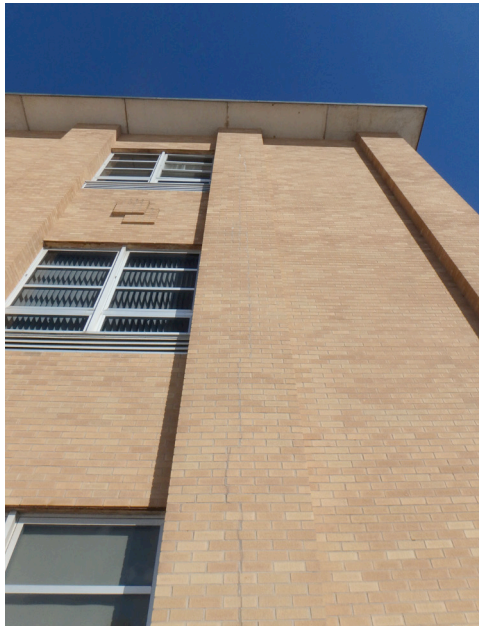
Design Loads: The drawings do not indicate the design loads. The framing plans indicate beam reactions. Based on these reactions, the design live load is likely in the range of 60 psf. Based on the age of the building, seismic lateral loads would not have been considered for the design of the structure.

Observations

On March 4 and March 9, the structural eingineers visited the campus to make observations. Photographs taken earlier showed vertical cracking at some of the projecting pilasters. Since the existing steel columns are located within these projections, concern was raised that the steel columns could be corroding due to moisture infiltration and rust jacking. A representative from the campus provided lift access and performed masonry removals at three locations.

The following observations were made:

1. Vertical cracks were observed at seven of the projecting brick pilasters. The extent of cracking varied from hairline cracks to cracks over ⅛ inch wide that were bulging outward.
2. Removals were performed at three of these pilasters: one at the northwest corner pilaster, and two others on the west façade.



3. The removal at the northwest corner revealed a steel column built tight into the pilaster. The column webs were infilled with brick and the flanges were built tight to the brick. The backup is red brick; the face brick is tan. The column flanges are rusted and have started to experience rust jacking (expansion of the steel due to oxidation). The vertical cracking aligns with each of the column flanges.

Structural Design (continued)

4. The two other removals on the west side revealed roof drain leaders within the pilasters. The backup (red) brick was stopped on either side of the pipe. No brick ties or headers were observed tying the outer brick wythe (tan) to the backup. The vertical cracking in the pilasters aligns with either side of the pipes.

5. The brick at window heads is supported by a hung steel lintel. The lintel is slightly rusted. Copper flashing is exposed and there is a sizable gap between the brick and the top of the lintel. Despite this, no significant cracking of the brick was observed over the openings. In many locations the sealant between the windows and brick piers has failed.
6. In several locations the mortar joint at the corner of the piers and the wall has cracked and there are voids.
7. At one pier, the brick was chipped and damaged.

New Work: Basic Scope

Lateral System Review: According to the *Existing Building Code of New York State (EBCNYS)*, the proposed Level 3 alteration is classified as a Limited Structural Alteration per Section 807.5.3 since the alterations do not involve more than 30% of the floor and/or roof structures. For a Limited Structural Alteration, the altered building must be analyzed for the loads applicable at the time of original construction, which would be wind loads only.

Brick Pilaster Repairs: The cracking at some of the projecting pilasters has occurred for two different reasons.

1. At the roof drain leaders, the backup brick was notched around the

pipe, leaving only the veneer wythe in front of the pipe. The veneer does not appear to be attached to the backup. The cracks at these pilasters were the most severe, and the brick was also displaced outward. According to the existing drawings, roof leaders are located in three of the pilasters. All three of these pilasters are experiencing the same severe cracking and outward displacement. These pilasters should be rebuilt for their full height. Consideration should be given to relocating the leaders out of the exterior wall system.

2. The cracking at the other four pilasters occurs at column locations. The cracking is more severe at corner columns where there is exposure on two sides of the projection. The brick was built tight to all sides of the columns. The columns are not protected in any way, so they are rusting from long term exposure to moisture coming through the wall system. The rusting has progressed to the point that the oxidation is causing rust jacking. As the steel delaminates and expands, it exerts pressure on the surrounding brick and causes the brick to crack. Unfortunately, this allows more moisture to penetrate and increases the rate of corrosion and expansion. These pilasters should be rebuilt for their full height. The columns should be coated and protected to prevent further rusting.
3. The remaining pilasters are currently not showing signs of cracking, but they should be monitored for signs of cracking in the future.
4. The cracking and voids at the corners of all remaining pilasters should be repointed.
5. Sealant at windows should be replaced.
6. The steel lintels should be cleaned and coated to reduce corrosion.
7. The damaged brick at the pier should be removed and replaced.

New Work: Alternate Scope:

First-Floor Alternate 2: If this alternate work is elected, the opening through the first-floor structure will involve confirming locations of header ducts in the slab, removal of the existing concrete slab on deck, and new steel framing around the opening.

Window Alternates: If the alternates to add windows are elected, the introduction of window openings will involve the addition of new lintels. The window openings will also require a review of the existing lateral system since they will involve reducing the lateral strength of the building.

Mechanical, Electrical, Plumbing, and Fire Protection Design

Mechanical

Existing Conditions

General: The basis of mechanical design will focus on a system that maintains use of the existing steam and distributed chilled water systems, as requested by the campus. High efficiency, geothermal system alternatives were explored and found to not be achievable within the project budget. It is anticipated that the 50,155 square foot building will require approximately 160 tons of cooling and 1,500 MBH of heating capacity.

Removals: All existing HVAC piping, radiators, ductwork, pumps, and central equipment will be removed. Major central equipment removals will consist of two air handlers, indoor cooling towers, and modular chillers located in the penthouse. ACM abatement will be required for all removals in the basement, penthouse, third floor, and vertical chase spaces.

New Work: Basic Scope

General: The base Schematic Design HVAC system includes fan coil heating and cooling with perimeter baseboard radiation. The ventilation system will consist of a dedicated outside air energy recovery unit, with ventilation air distributed to zone variable air volume (VAV) boxes controlled by a demand-based CO_2 monitoring system. Central equipment will be sized for all four floors. Minimal fan coils and terminal devices will be designed to serve existing basement spaces to remain. The basement mechanical system will be designed for new program areas as an alternate.

Fan Coils: The anticipated zones in the building will consist of 3- to 5-ton fan coil units, with approximately 8 zones per floor. Each fan coil unit will serve zone-located supply and return air ducts concealed above the ceilings. Each fan coil unit will be installed with a 4-row chilled water coil and a 1-row hot water coil. Fans will be electronically commutated motor (ECM), variable-speed fans with digital controls to the central building management system (BMS). The return air side of each fan coil will be connected a single-duct VAV box with attenuator that will modulate to provide ventilation air to each zone. The basement level mechanical system will be designed to suit the new 1,600 square foot program area, as well as the existing program spaces to remain. This will include selective removal and reinstallation of existing ceilings as necessary for placement of new fan coils, duct, pipe, and terminal devices. The mechanical system will be designed to suit an entirely new basement level program as an alternate.

Ventilation Air Unit: The ventilation air strategy for the building will be based on two, dedicated, outside-air energy-recovery units located in the mechanical penthouse. Total anticipated air flow is approximately 18,000 CFM. The supply and exhaust fans will each be provided with premium efficiency motors and modulated by fan-dedicated variable-frequency drives controlled by supply air pressure. Each ventilation air unit will be provided with 3 water coils for glycol preheat, chilled water, and hot water reheat. Each coil will be controlled with a modulating control valve by the BMS. The unit will also be installed with a modulating enthalpy-style energy recovery wheel with freeze control. Ventilation supply air will be delivered throughout the building to the fan coil level VAV boxes. The basement level will be provided with general ventilation only with the ability to adapt to future use.

Chilled Water: Chilled water serving the building will be maintained from the adjacent chilled water plant in Park Hall. Distribution piping from this plant is preexisting in the Wilber Hall basement, and will be maintained and connected to two new, vertical in-line, variable-speed chilled water pumps in the basement mechanical space. The new pumps will be sized for approximately 400 GPM and 60 feet of head. Pumps will be piped in parallel, each with a triple-duty valve and suction guide with strainer. Chilled water loop bypass piping, air separator, and expansion tank will also be provided in the basement. Primary chilled water piping will be pro-vided with a BTU meter. The piping distribution will extend up in a vertical chase with floor branch piping to serve fan coils and the ventilation

air unit coil in the penthouse. Chilled water supply and return taps will be provided throughout the basement level for future connection.

Hot Water: A new 1,500 MBH steam-to-hot-water converter will be provided in the basement and connected to the existing central steam main. Temperature control for the hot water in the building will be through a ⅓ to ⅔ control valve arrangement on the shell side of the converter. New double condensate drain traps will be provided to the converter. Two new, vertical in-line, variable-speed hot water pumps will be provided in the basement mechanical space. The new pumps will be sized for approximately 150 GPM and 60 feet of head. Pumps will be piped in parallel, each with a triple-duty valve and suction guide with strainer. The main hot water loop will be provided with an air separator and expansion tank. Perimeter fin tube baseboard radiation will be provided on each floor. Each radiation unit will have a dedicated, 2-way control valve. The hot water piping distribution will extend up in a vertical chase from the basement, with floor branch piping to serve fan coils, radiation, and the ventilation air unit in the penthouse. The penthouse will be home for a new glycol, brazed-plate heat exchanger and circulation pump dedicated to the ventilation air unit preheat coil for freeze protection. Heating hot water supply and return taps will be provided throughout the basement level for future connection.

Duct System: The mechanical duct system will be dedicated to zone fan coil units and the ventilation air unit supply and exhaust air ducts. All ducts will be constructed out of G90 steel and insulated with a 1½-inch- thick fiberglass blanket and factory foil-scrim wrap jacket. Standard 3-cone, 2-by-2-foot supply diffusers, and 2-by-2-foot, ¾-inch louvered return grilles will be used for zone air flow. New exhaust ducts and a new roof mounted exhaust fans will be provided to serve the restrooms and janitor closets.

Controls: A new digital control system will be connected to the central campus BMS front end. Trane controls will be sole-source specified for this project to match the existing campus system. All equipment in the building will be controlled, adjusted, and monitored by the BMS.

New Work: Alternate Scope

Basement: An alternate design will be developed to serve new program spaces in the basement with the new building mechanical system. Additional zone-dedicated fan coils and terminal devices will be required for the basement level alternate for smaller individual zones. Equipment, terminal devices, and service distribution for the alternate basement design will be consistent with the upper levels of the building described in the basic scope.

Electrical

Existing Conditions

Removals: All existing power distribution and lighting on second, third, and penthouse levels will be removed. This includes penthouse MCC, panelboards, conduit, wiring, receptacles, and devices. Basement and first floor work will be limited to new panelboards and relocations for new walls.

Electric Service: Wilber Hall is supplied by the campus 13.2KV medium voltage loop via an inert gas-filled medium voltage load break switch located in the basement electrical room. The medium voltage load break switch, or "puffer switch," is manufactured by S&C Electric Company, CAT#933212-R1ST1V1-E108, Model #321, and is in excellent condition. The high voltage feeder cables appear to be in good condition.

The puffer switch feeds a Cutler Hammer transformer supplying the building with 120/208V power. The transformer is a dry type, 13.2KV primary delta with a 208/120V, 3-phase 4-wire, wye secondary configuration. The transformer is in good condition. Cables from the puffer switch to the transformer appear to be in good condition.

Mechanical, Electrical, Plumbing, and Fire Protection Design (continued)

Electrical (continued)

The secondary distribution main panelboard is Cutler Hammer Pow-R Line T #PRL, 3-phase, 4-wire, 208/120V. Main circuit breaker is 3-pole breaker with long time, short time, instantaneous, and ground fault settings, CAT#HND, with a fault rating of 65K AIC. This panelboard is in good condition.

New Work: Basic Scope

Secondary voltage will be routed from the Wilber Hall basement electrical room through the building and continue up to a new MCC in the penthouse. The existing switchgear has adequate capacity to provide 3-phase, 4-wire, 208/120V distribution to new switchboards and panelboards located throughout the facility. Major mechanical equipment will be 480V supplied from an existing 150 kVA transformer in the electric room. A new utility meter with power monitor connection to the BMS will be provided for the main building service.

Standby/Emergency Power: Wilber Hall has an existing emergency standby power system with two automatic transfer switches in the basement electrical room. Designated ATS 2 and 4, they are fed from the 250KW, 208/120V, 3-phase, 4-wire diesel generator located north of Park Hall. There is spare breaker capacity in the emergency power panels. The renovation will provide power for emergency and exit lighting and standby power to heating HVAC equipment, elevator, communications equipment, and selected outlets indicated by the color orange.

Designated light fixtures in the corridors and the common areas will be connected to the emergency lighting panelboard as required to sufficiently illuminate the means of egress in the event of a normal power failure. All stairwell lights and exit lights will be connected to the emergency distribution system.

Exterior Lighting: The exterior walkways will be illuminated with LED, full cut-off fixtures on 15-foot-tall poles with concrete bases. Lighting level will average 2 footcandles on the walkways. Lighting around the perimeter of the building will also be full cut-off LED, wall-mounted fixtures. Fixtures will complement the architectural aesthetics of the building. Pole mounted fixtures will comply with campus standards.

Exterior lighting will also include recessed LED ceiling-mounted fixtures in the canopy at each entrance. These fixtures will be connected to the emergency panelboard such that emergency lighting is provided at each exit door as required by the *Building Code of New York State*.

Exterior lighting fixtures will be fed from a dedicated electrical panelboard and be controlled by a lighting control panel to program dusk-to-dawn and astrological time features.

Electrical Distribution: Electrical panels will be located throughout the facility, recessed in walls near areas in which they are supplying power. Common areas, classrooms, lab spaces, and mechanical and electrical rooms will have a dedicated panelboards. Each floor will have three dedicated 200-amp, 3-phase panelboards for electrical distribution to provide flexibility for future modifications to the distribution system.

Sub-metering will be provided in each of the panelboards to monitor energy usage for each of the areas it supplies power. This will be performed using current transformers (CTs) at the main lugs of each panelboard or with Power Logic branch circuit power monitors by Square-D or equal, with hardware installed to transmit the recorded data to the building management system or to a web-based software program for the owner to access and calculate energy usage by each of the tenants.

Interior Lighting: High efficiency LED fixtures will be used throughout Wilber Hall in accordance with IESNA guidelines. Office lighting will be designed for 50 footcandles; classrooms and conference rooms between 20

and 50 footcandles; Toilet rooms, lobby areas, and corridors between 10 and 20 footcandles; and mechanical spaces between 20 and 50 footcandles. LED exit signs and directional signs will be provided where required.
The general corridor lighting will be controlled by motion sensors and time clock control. Daylight harvesting will be used in offices with windows, and in rooms with sufficient daylight paths into the rooms. One lighting control panel will be located on each floor to perform the necessary functions and interface with controls sensors.
Lighting levels and design will comply with the following Codes and Standards:

- Energy Conservation Code of New York State
- National Electrical Code
- IESNA (Illumination Engineering Society of North America)
- ASHRAE IES 90.1
- ADA (American Disability Act)
- The Building Code of New York State

Life Safety Lighting: Designated light fixtures in the corridors and the common areas will be connected to the emergency lighting panelboard as required to sufficiently illuminate the means of egress in the event of a normal power failure. All stairwell lights and exit lights will be connected to the emergency lighting panelboard.

A generator transfer device (GTD) will be installed on each light fixtures that ise required for both regular switched lighting and emergency lighting; but not required for night lighting. The GTD senses the loss of normal power and switches the light fixture ballast input power connection to an unswitched, emergency lighting circuit.

In addition to eliminating night lighting in areas that do not require it (e.g. classrooms and lounges), the GTD makes it possible to turn off lights for presentations and other activities without jeopardizing emergency lighting.

Sustainable Lighting Design: As part of the goal of achieving low operating and maintenance cost, the lighting design will reduce energy use 30 percent below code requirements with energy efficiency features such as:

- LED fixtures
- Tandem switching to allow changing light levels
- Daylighting sensing
- Occupancy sensing

Voice and Data: Telephone and data services will be provided by the local service provider through fiber-optic cabling. The fiber cabling will be routed underground to a main dedicated information technology (IT) closet in the basement housing servers and equipment required to distribute telephone and data outlets located in classrooms and offices. Server equipment will distribute data to offices, classrooms, conference rooms, and lobby spaces through CAT-6A cabling. Voice Over Internet Protocol (VOIP) will be used for distributing telephone services to the same areas with CAT-6A cabling as well. Cable trays will be installed to carry the bulk of the cabling with EMT conduits in walls for routing to wall outlets in individual rooms. Cable television will also be provided through the fiber-optic cabling. A fiber-optic digital-to-coaxial analog media converter in the IT room will allow coaxial cable to distribute cable television through RG-11 cables to lobbies, public spaces, classrooms, and other spaces.

Fire Alarm: A fully addressable fire alarm system will be provided that monitors the sprinkler system, provides smoke or heat coverage in all spaces, and notifies occupants and authorities. Conventional ceiling-mounted detectors will be used in corridors and rooms. Alarm notification will be distributed within the building and connected to the central station. Audio/visual devices will be placed in all room and corridor areas in optimum line-of-site locations. Duct smoke detectors will be located at the new air handling units providing in excess of 2,000 cfm. The fire alarm system will be circuited to the access control system to so that if the fire alarm is triggered, the access control system will release its locks to allow free entry and exit.

Mechanical, Electrical, Plumbing, and Fire Protection Design (continued)

Electrical (continued)

The existing Simplex head end equipment will be retained with new devices on the basement, second and third floors, and in the penthouse and elevator machine room. The first floor devices will be relocated as required by wall removals.

Access Control / Security: The building will be equipped with a centrally controlled card access system with almost every door having a card/proximity reader. There will be two levels of access, first level will be to enter the building, the second to access the individual office spaces. The system will be fully programmable and include data collection accessible through a web-based Ethernet connection. The fire alarm system will be circuited to the access control system to so that if the fire alarm is triggered, the access control system will release its locks to allow free entry and exit.

Video surveillance control equipment will be installed within the IT room for recording and accessing camera feeds in the building. Power over Ethernet (POE) cameras will be installed at the entrances, corridor access points, and electrical/mechanical spaces to provide almost full coverage of the building.

Access Requirements for New Equipment: All switchboards, panelboards, distribution panelboards, and communication equipment will be located in dedicated spaces and protected from damage. Electrical and communication equipment rooms or enclosures housing electrical and communication apparatus that are controlled by a key or card reader will be considered accessible to qualified persons.

Equipment which is likely to require examination, adjustment, servicing, or maintenance will have the proper working space. A minimum of 3 feet clearance in front of all 600 volts or less equipment will be provided in compliance with the National Electrical Code (NEC). At least one entrance of sufficient area will be provided to give access to and egress from working spaces.

Raceway systems will be designed such that access to electrical / communication equipment will not be denied by the accumulation of communications wires and cables that prevents removal of panels, include suspended ceiling panels.

Lightning Protection: Lighting protection will be installed at the roof level and penthouse roof level and connected to a grounding electrode system. Air terminals will be placed in locations as recommended by code.

New Work: Alternate Scope

Basement: An alternate design will be developed to serve new program spaces in the basement with the new lighting and electrical systems. Equipment, devices, and service distribution for the alternate basement design will be consistent with the upper levels of the building described in the basic scope.

Plumbing

Existing Conditions

General: The domestic water distribution system throughout the building for the most part will remain. Modifications will consist of a new hot water recirculation system, new restroom fixtures, and backflow preventers. Basement level restroom fixtures will be shown as an alternate.

Removals: The existing domestic water service for the building will be modified to include a backflow preventer and water meter. This will require a section of the main water service to be isolated and removed. The existing domestic hot water converter serving Wilber appears to be in good con-

dition and will be maintained. All existing restroom fixtures and drinking fountains will be removed for replacement.

New Work: Basic Scope

Domestic Water Service: The domestic water service in the basement will be modified with a new backflow preventer and water meter.

Domestic Hot Water: The existing steam-to-domestic-hot-water converter serving Wilber hall appears to be in good condition and will be maintained for this project. A new domestic hot water recirculation pump dedicated to Wilber tower will be installed. The building dedicated recirculation system will be monitored and controlled at the BMS.

Plumbing Fixtures: New plumbing fixtures will be provided in the renovated restrooms. The water closets will be wall mounted, low flow, ADA-compliant fixtures with hardwired automatic flush valves. Hand lavatories will be wall mounted, with low flow, ADA-compliant sensor-actuated faucets that are hardwired. Floor drains will be provided in each restroom. Janitor closets will be provided with new floor sinks and utility faucets. The restrooms will be renovated in their existing locations, so new distribution piping will be limited. Domestic, sanitary, and vent piping will undergo minor modifications to connect the new fixtures to the existing risers and distribution.

New Work: Alternate Scope

The basic scope plumbing system design will be include new fixtures and restroom renovation work for the upper two floors only. New plumbing fixtures provided in the renovated restrooms on the basement level will be included as alternate scope. Plumbing fixtures in the alternate will be consistent with fixtures as described for the basic scope.

Fire Protection

Existing Conditions

The existing fire protection system has a 4-inch service. There are no standpipes currently in the building, although the height of the building is just below or at the requirement for standpipes. The local fire marshal has yet to make a determination. Hydrant flow test reports are not yet available to confirm pressures. For this report it is assumed that an upgraded service will be required with the addition of standpipes.

Removals: The existing fire protection piping for the building will be removed back to the 6-inch main that serves the building. This includes removal of the piping, with the exception of the first floor. The first floor will be reconnected to the new system with sprinkler head relocations.

New Work: Basic Scope

Fire Protection: A new 6-inch fire protection service will be connected to the existing 6-inch supply in the basement of the building. A 6-inch double check detector assembly and alarm valve will be provided. A new distribution system will be provided for multiple zones, designed to comply with NFPA 13. Each floor will constitute a zone. Each zone shall have a tamper and flow switch and a test and drain assembly. Pendent heads will be provided for all spaces with ceilings. Upright heads will be provided in unfinished spaces, including basement and penthouse mechanical spaces. Standpipes will be provided in each exit stair in accordance with NFPA 14.

Sustainable Design

The project team's approach to LEED-NC v2009 certification for this project is focused on maximizing credits in the Materials & Resources, Indoor Environmental Quality, and Innovation in Design categories, while looking for advantageous credits and alternative compliance paths in the Sustainable Sites, Water Efficiency, and Energy & Atmosphere categories. The nature of the project scope is driving this approach, due to the large extent of internalized building renovations, with limited building envelope work and site work. Additionally, because of the inclusion of this building in another LEED project and the current lack of information regarding the location of the LEED project boundary for that project, it is unclear how the concurrent project will affect this project's ability to achieve some of the Sustainable Sites credits. With the aforementioned in mind, the following LEED-NC v2009 Project Scorecard outlines likely, possible and unlikely project credits. This scorecard will be updated after further information about the LEED project boundary of the concurrent Wilber Hall project becomes available.

The estimated LEED certification level ranges from Certified to Gold, depending on the following factors:

- The extent of the LEED project boundary of the concurrent Wilber Hall project.
- The college's ability to achieve Innovation in Design credits by implementing programs based on LEED for Existing Buildings: Operations & Maintenance credits. Typically, GBCI will accept credits from other LEED rating systems as Innovation in Design credits.
- The ability of existing campus infrastructure to contribute to the achievement of credits based on a campus approach. This applies specifically to the Sustainable Sites credits related to bicycle storage and changing rooms, parking, habitat protection or restoration, open space, stormwater design, heat island effect – nonroof, and light pollution reduction.

LEED-NC

LEED for New Construction and Major Renovation v2009
Schematic Project Scorecard / Task List for
SUNY Oswego Wilber Hall Renovations
Oswego, New York
March 9, 2016

Yes	?	No	Credit No.	**Sustainable Sites**	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available
11	**13**	**2**						26 Points
Yes			Prereq 1	Construction Activity Pollution Prevention	Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local standards and codes, whichever is more stringent.			Required
1			Credit 1	Site Selection	Do not develop buildings, hardscape, roads or parking areas on portions of sites that meet any of the following criteria: • Prime farmland as defined by the U.S. Department of Agriculture in the United States Code of Federal Regulations. • Previously undeveloped land whose elevation is lower than 5 feet above the elevation of the 100-year flood as defined by FEMA • Land specifically identified as habitat for any species on federal or state threatened or endangered lists • Land within 100 feet of any wetlands as defined by Federal, State or Local Regulations. • Previously undeveloped land that is within 50 feet of a water body, defined as seas, lakes, rivers, streams and tributaries that support or could support fish, recreation or industrial use. • Land that prior to acquisition for the project was public parkland, unless land of equal or greater value as parkland is accepted in trade by the public landowner (park authority projects are exempt).			1
	5		Credit 2	Development Density & Community Connectivity	OPTION 1: Development Density Construct or renovate a building on a previously developed site AND in a community with a minimum density of 60,000 square feet per acre net. The density calculation is based on a typical two-story downtown development and must include the area of the project being built. OPTION 2: Community ConnectivityConstruct or renovate a building on a site that meets the following criteria: • Is located on a previously developed site • Is within 1/2 mile of a residential area or neighborhood with an average density of 10 units per acre net • Is within 1/2 mile of at least 10 basic services • Has pedestrian access between the building and the services	Residence Halls count as High Density. Are other services enough?		5
1			Credit 3	Brownfield Redevelopment	Develop on a site documented as contaminated (by means of an ASTM E1903-97 Phase II Environmental Site Assessment or a local voluntary cleanup program).	Asbestos removal		1
6			Credit 4.1	Alternative Transportation, Public Transportation Access	OPTION 1. Rail Station Proximity: Locate the project within 1/2-mile walking distance (measured from a main building entrance) of an existing or planned and funded commuter rail, light rail or subway station. or OPTION 2. Bus Stop Proximity Locate the project within 1/4-mile walking distance (measured from a main building entrance) of 1 or more stops for 2 or more public, campus, or private bus lines usable by building occupants.			6

Sustainable Design (continued)

	1		Credit 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	Provide secure bicycle racks for 5% of peak period building users and shower and changing facilities for 0.5% of FTE occupants. Showers must be accessible to all building occupants.	Might be able to claim credit for Park if Park has additional capacity.		1
	3		Credit 4.3	Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles	OPTION 1: Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. OPTION 2: Install alternative-fuel fueling stations for 3% of the total vehicle parking capacity of the site. OPTION 3: Provide low-emitting and fuel-efficient vehicles2 for 3% of full-time equivalent (FTE) occupants and provide preferred parking1 for these vehicles. OPTION 4: Provide building occupants access to a low-emitting or fuel-efficient vehicle-sharing program that provides one low-emitting or fuel-efficient vehicle per 3% of FTE occupants, with a 2-year contract, and parking for the vehicles in the nearest available spaces in the nearest available parking area.	Requires more discussion with campus		3
2			Credit 4.4	Alternative Transportation, Parking Capacity	Size parking capacity to meet, but not exceed minimum local zoning requirements and provide preferred parking for carpools for 5% of the total parking spaces OR Provide no new parking.	No new parking with project.		2
		1	Credit 5.1	Site Development, Protect or Restore Habitat	Restore or protect a minimum of 50% of the site area (excluding the building footprint) with native or adapted vegetation or 20% of the total site area (including the building footprint), whichever is greater, with native or adapted vegetation. Achieve through site areas planted with native vegetation and a vegetated roofing system that support wildlife habitat and diversity.			1
	1		Credit 5.2	Site Development, Maximize Open Space	CASE 1. Sites with Local Zoning Open Space Requirements Reduce the development footprint1 and/or provide vegetated open space within the project boundary such that the amount of open space exceeds local zoning requirements by 25%. CASE 2. Sites with No Local Zoning Requirements (e.g. some university campuses, military bases) Provide a vegetated open space area adjacent to the building that is equal in area to the building footprint. CASE 3. Sites with Zoning Ordinances but No Open Space Requirements Provide vegetated open space equal to 20% of the project site area. ALL CASES For projects in urban areas that earn SS Credit 2: Development Density and Community Connectivity, vegetated roof areas can contribute to credit compliance. For projects in urban areas that earn SS Credit 2: Development Density and Community Connectivity, pedestrian-oriented hardscape areas can contribute to credit compliance. For such projects, a minimum of 25% of the open space counted must be vegetated. Wetlands or naturally designed ponds may count as open space and the side slope gradients average 1:4 (vertical:horizontal) or less and are vegetated.	If existing campus complies, may be able to claim.		1
	1		Credit 6.1	Stormwater Design, Quantity Control	CASE 1. Sites with Existing Imperviousness 50% or Less OPTION 1 Implement a stormwater management plan that prevents the postdevelopment peak discharge rate and quantity from exceeding the predevelopment peak discharge rate and quantity for the 1- and 2-year 24-hour design storms. OR OPTION 2 Implement a stormwater management plan that protects receiving stream channels from excessive erosion. The stormwater management plan must include stream channel protection and quantity control strategies. CASE 2. Sites with Existing Imperviousness Greater Than 50% Implement a stormwater management plan that results in a 25% decrease in the volume of stormwater runoff from the 2-year 24-hour design storm.	If existing campus complies, may be able to claim.		1

	1		Credit 6.2	Stormwater Design, Quality Control	Provide storm-water management that captures and treats the storm-water runoff from 90% of the average annual rainfall and is capable of removing 80% of the average annual post development total suspended solids by using acceptable best management practices.	If existing campus complies, may be able to claim.		1
	1		Credit 7.1	Heat Island Effect, Non-roof	OPTION 1 Use any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots): • Provide shade from the existing tree canopy or within 5 years of landscape installation. Landscaping (trees) must be in place at the time of occupancy. • Provide shade from structures covered by solar panels that produce energy used to offset some nonrenewable resource use. • Provide shade from architectural devices or structures that have a solar reflectance index2 (SRI) of at least 29. • Use hardscape materials with an SRI of at least 29. • Use an open-grid pavement system (at least 50% pervious). OR OPTION 2 Place a minimum of 50% of parking spaces under cover. Any roof used to shade or cover parking must have an SRI of at least 29, be a vegetated green roof or be covered by solar panels that produce energy used to offset some nonrenewable resource use.	If existing campus complies, may be able to claim.		1
1			Credit 7.2	Heat Island Effect, Roof	OPTION 1: Use roofing materials with a solar reflectance index (SRI) equal to or greater than 78 for a low-sloped roof and 29 for a steep-sloped roof, for a minimum of 75% of the roof surface. OPTION 2: Install a vegetated roof that covers at least 50% of the roof area. OPTION 3: Install a combination of the above.	If reroofing, should be attainable with a white roof.		1
		1	Credit 8	Light Pollution Reduction	Provide interior lighting systems that reduce the input power of all nonemergency luminaires with a direct line of site to any translucent or transparent openings in the envelope by at least 50% between 11 PM and 5 AM and light exterior areas only as required for safety and comfort, with fixtures shielded to limit light trespass to 15 feet beyond property boundaries.	No exterior lighting components. If campus complies then may be able to claim.		1

Yes **3**	? **5**	No **2**	Credit No.	**Water Efficiency**	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available 10 Points
Yes			Prereq 1	Water Use Reduction, 20% Reduction	Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation).	If replacing fixtures, no problem.		Required
	2		Credit 1	Water Efficient Landscaping, Reduce by 50%	OPTION 1: Reduce potable water consumption for irrigation by 50% from a calculated midsummer baseline case.	If college can help document species installed within boundary.		2
	2			Water Efficient Landscaping, No Potable Use or No Irrigation	OPTION 2: Use only captured rainwater, recycled wastewater, recycled graywater or on-site or municipally treated wastewater for irrigation or select and install landscaping that does not require permanent irrigation systems.			2
		2	Credit 2	Innovation Wastewater Technologies	OPTION 1 Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (e.g., water closets, urinals) or nonpotable water (e.g., captured rainwater, recycled graywater, on-site or municipally treated wastewater). OR OPTION 2 Treat 50% of wastewater on-site to tertiary standards. Treated water must be infiltrated or used on-site.			2
			Credit 3	Water Use Reduction	Employ strategies that in aggregate use less water than the water use baseline calculated for the building (not including irrigation). The minimum water savings percentage for each point threshold is as follows:			2 to 4
2				30% Reduction		If have control of all fixtures.		2
1				35% Reduction				3
	1			40% Reduction				4

Sustainable Design (continued)

Yes	?	No	Credit No.	Energy & Atmosphere	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available
15	13	7						35 Points
Yes			Prereq 1	Fundamental Commissioning of the Building Energy Systems	The following commissioning process activities must be completed by the project team: • Designate an individual as the commissioning authority (CxA) to lead, review and oversee the completion of the commissioning process activities. • The owner must document the owner's project requirements. The design team must develop the basis of design. The CxA must review these documents for clarity and completeness. The owner and design team must be responsible for updates to their respective documents. • Develop and incorporate commissioning requirements into the construction documents. • Develop and implement a commissioning plan. • Verify the installation and performance of the systems to be commissioned. • Complete a summary commissioning report. Commissioning process activities must be completed for the following energy-related systems, at a minimum: • Heating, ventilating, air conditioning and refrigeration (HVAC&R) systems (mechanical and passive) and associated controls • Lighting and daylighting controls • Domestic hot water systems • Renewable energy systems (e.g., wind, solar)			Required
Yes			Prereq 2	Minimum Energy Performance: 10% New Bldgs or 5% Existing Bldg Renovs	Demonstrate a 10% improvement in the proposed building performance rating for new buildings, or a 5% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance rating.			Required
Yes			Prereq 3	Fundamental Refrigerant Management	Zero use of chlorofluorocarbon (CFC)-based refrigerants in new base building heating, ventilating, air conditioning and refrigeration (HVAC&R) systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phase-out conversion prior to project completion. Phase-out plans extending beyond the project completion date will be considered on their merits.			Required
			Credit 1	Optimize Energy Performance	OPTION 1: Demonstrate a percentage improvement in the proposed building performance rating compared with the baseline building performance rating. Calculate the baseline building performance according to Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda1) using a computer simulation model for the whole building project. The minimum energy cost savings percentage for each point threshold is as follows:			1 to 19
1				12% New Bldgs or 8% Exist Bldg Renovations		Dave: Aim for 10 points minimum. Tie into GSHP		1
1				14% New Bldgs or 10% Exist Bldg Renovations				2
1				16% New Bldgs or 12% Exist Bldg Renovations				3
1				18% New Bldgs or 14% Exist Bldg Renovations				4
1				20% New Bldgs or 16% Exist Bldg Renovations				5
1				22% New Bldgs or 18% Exist Bldg Renovations				6
1				24% New Bldgs or 20% Exist Bldg Renovations				7
1				26% New Bldgs or 22% Exist Bldg Renovations				8

1				28% New Bldgs or 24% Exist Bldg Renovations				9
1				30% New Bldgs or 26% Exist Bldg Renovations				10
1				32% New Bldgs or 28% Exist Bldg Renovations				11
	1			34% New Bldgs or 30% Exist Bldg Renovations				12
	1			36% New Bldgs or 32% Exist Bldg Renovations				13
	1			38% New Bldgs or 34% Exist Bldg Renovations				14
	1			40% New Bldgs or 36% Exist Bldg Renovations				15
	1			42% New Bldgs or 38% Exist Bldg Renovations				16
	1			44% New Bldgs or 40% Exist Bldg Renovations				17
	1			46% New Bldgs or 42% Exist Bldg Renovations				18
	1			48% New Bldgs or 44% Exist Bldg Renovations				19
			Credit 2	On-Site Renewable Energy	Use on-site renewable energy systems to offset building energy costs. Calculate project performance by expressing the energy produced by the renewable systems as a percentage of the building's annual energy cost.			1 to 7
	1			1% Renewable Energy		Photovoltaics on roof		1
	1			3% Renewable Energy		3% might require every inch of roof area		2
		1		5% Renewable Energy				3
		1		7% Renewable Energy				4
		1		9% Renewable Energy				5
		1		11% Renewable Energy				6
		1		13% Renewable Energy				7
2			Credit 3	Enhance Commissioning	Implement, or have a contract in place to implement, the following additional commissioning process activities in addition to the requirements of EA Prerequisite 1: Fundamental Commissioning of Building Energy Systems. • Prior to the start of the construction documents phase, designate an independent commissioning authority (CxA) to lead, review and oversee the completion of all commissioning process activities. * The CxA must have documented commissioning authority experience in at least 2 building projects. * The individual serving as the CxA: – Must be independent of the work of design and construction. – Must not be an employee of the design firm, though he or she may be contracted through them. – Must not be an employee of, or contracted through, a contractor or construction manager holding construction contracts. – May be a qualified employee or consultant of the owner. • The CxA must report results, findings and recommendations directly to the owner. • The CxA must conduct, at a minimum, 1 commissioning design review of the owner's project requirements basis of design, and design documents prior to the mid-construction documents phase and back-check the review comments in the subsequent design submission. • The CxA must review contractor submittals applicable to systems being commissioned for compliance with the owner's project requirements and basis of design. This review must be concurrent with the review of the architect or engineer of record and submitted to the design team and the owner.			2

Sustainable Design (continued)

					• The CxA or other project team members must develop a systems manual that gives future operating staff the information needed to understand and optimally operate the commissioned systems. • The CxA or other project team members must verify that the requirements for training operating personnel and building occupants have been completed. • The CxA must be involved in reviewing the operation of the building with operations and maintenance (O&M) staff and occupants within 10 months after substantial completion. A plan for resolving outstanding commissioning-related issues must be included.			
2			Credit 4	Enhanced Refrigerant Management	Select refrigerants and HVAC&R equipment that minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change, and not exceed a value of 100 when calculated per the formula within the LEED-NC v2009 Rating System.			2
	1	**2**	Credit 5	Measurement & Verification	Develop an M&V Plan to evaluate building and/or energy system performance, including provision of system sensors and systems to monitor and measure actual building energy system performance.	Can get one point for preparing plan. Exec order 88 requires at least building meters.		3
	2		Credit 6	Green Power	Engage in at least a 2-year renewable energy contract to provide at least 35% of the building's electricity from renewable sources, as defined by the Center for Resource Solutions' Green-e Energy product certification requirements.	Many SUNY's can't but discuss with Mike L.		2

Yes	?	No	Credit No.	**Materials & Resources**	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available 14 Points
6	**6**	**2**						
Yes			Prereq 1	Storage & Collection of Recyclables	Provide easily-accessible dedicated areas for the collection and storage of materials for recycling for the entire building. Materials must include, at a minimum: paper, corrugated cardboard, glass, plastics and metals.			Required
			Credit 1	Building Reuse:	Maintain the existing building structure (including structural floor and roof decking) and envelope (the exterior skin and framing, excluding window assemblies and non-structural roofing material). The minimum percentage building reuse for each point threshold is as follows:			1 to 3
1			Credit 1.1	Maintain 55% of Existing Walls, Floors & Roof		Only structural elements.		1
1			Credit 1.1	Maintain 75% of Existing Walls, Floors & Roof		Only structural elements.		2
	1		Credit 1.1	Maintain 95% of Existing Walls, Floors & Roof		Only structural elements.		3
	1		Credit 1.2	Building Reuse, Maintain 50% Interior Nonstructural Elements	Use existing interior nonstructural elements (e.g., interior walls, doors, floor coverings and ceiling systems) in at least 50% (by area) of the completed building, including additions. If the project includes an addition with square footage more than 2 times the square footage of the existing building, this credit is not applicable.			1
1			Credit 2	Construction Waste Management, Divert 50% from Disposal				1
1			Credit 2	Construction Waste Management, Divert 75% from Disposal	Reuse and recycle demolition and construction waste to divert it from disposal in landfills and incineration facilities.			1
		1	Credit 3	Materials Reuse 5%	Use salvaged, refurbished or reused materials in the project.			1
		1	Credit 3	Materials Reuse, 10%				1
1			Credit 4	Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	Use building materials or products with recycled content. Typical materials with high recycled content value are steel products, gypsum board, particle board, ceramic tile and acoustic ceiling systems.	Drywall.		1
	1		Credit 4	Recycled Content, 20% (post-consumer + 1/2 pre-consumer)				1
1			Credit 5	Regional Materials 10% Extracted, Processed & Manufactured Regionally	Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site. Typical materials that can be sourced regionally are masonry, stone, concrete, asphalt, gypsum board, lumber, ceramic tile, glass and steel.	Drywall.		1

	1		Credit 5	Regional Materials 20% Extracted, Processed & Manufactured Regionally				1
	1		Credit 6	Rapidly Renewable Materials 2.5%	Use rapidly renewable building materials and products for 2.5% of the total value of all building materials and products used in the project, based on cost. Rapidly renewable building materials and products are made from agricultural products that are typically harvested within a 10-year or shorter cycle.	Bamboo or wheatboard.		1
	1		Credit 7	Certified Wood 50%	Use at least 50% of wood-based materials that are certified in accordance with the Forest Stewardship Council's principles and criteria.	Requires FSC Certified shop for COC		1

Yes **8**	? **5**	No **2**	Credit No.	**Indoor Environmental Quality**	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available 15 Points
Yes			Prereq 1	Minimum IAQ Performance	Design ventilation systems to comply with the minimum requirements of ASHRAE Standard 62.1-2007.			Required
Yes			Prereq 2	Environmental Tobacco Smoke (ETS) Control	Establish policies that prohibit smoking in the building and locate any exterior designated smoking areas at least 25 feet away from entries, outdoor air intakes and operable windows. In apartments, smoking must be prohibited in public areas and apartments must be ventilated under negative pressure, with no recirculation of smoke containing air.			Required
1			Credit 1	Outdoor Air Delivery Monitoring	Provide permanent monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum ventilation requirements.			1
	1		Credit 2	Increased Ventilation	Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1 2007 as determined by EQ Prerequisite 1.	Negative impact on eneregy performance.		1
1			Credit 3.1	Construction IAQ Management Plan, During Construction	Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building.			1
1			Credit 3.2	Construction IAQ Management Plan, Before Occupancy	Develop and implement an Indoor Air Quality (IAQ) Management Plan for the pre-occupancy phase by either flushing-out the building by supplying a total air volume of 14,000 CF of outdoor air per SF of floor area or testing the air for specific contaminants prior to occupancy.			1
1			Credit 4.1	Low-Emitting Materials, Adhesives & Sealants	On the interior of the building, use adhesives, sealants and sealant primers complying with the VOC limits of the South Coast Air Quality Management District (SCAQMD) Rule #1168.			1
1			Credit 4.2	Low-Emitting Materials, Paints & Coatings	On the interior of the building, use paints, coatings, primers, stains and finishes with VOC limits complying with the corresponding Green Seal Standard and South Coast Air Quality Management District (SCAQMD) Rule 1113.			1
1			Credit 4.3	Low-Emitting Materials, Flooring Systems	Utilize carpet and carpet cushion that meets the Carpet and Rug Institute's Green Label Plus program. Utilize carpet adhesive that meets the requirements of EQ Credit 4.1: VOC limit of 50 g/L. Utilize hard surface flooring certified as compliant with the FloorScore standard. Utilize floor finishes such as sealer and stains meeting SCAQMD Rule 1113.			1
1			Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	Utilize composite wood and agrifiber products and laminating adhesives on the interior of the building that contain no added urea-formaldehyde resins. Composite wood and agrifiber products are defined as: particleboard, medium density fiberboard (MDF), plywood, wheat-board, strawboard, panel substrates and door cores.			1

Sustainable Design (continued)

	1		Credit 5	Indoor Chemical & Pollutant Source Control	• Employ permanent entryway systems at least 10 feet long in the primary direction of travel to capture dirt and particulates from entering the building at all entryways that are directly connected to the outdoors. • Where hazardous gases or chemicals may be present or used (including garages, housekeeping / laundry areas and copying/printing rooms), exhaust each space sufficiently to create negative pressure with respect to adjacent spaces with the doors to the room closed. For each of these spaces, provide self-closing doors and deck to deck partitions or a hard lid ceiling. • In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media prior to occupancy that provides a Minimum Efficiency Reporting Value (MERV) of 13 or better. • Provide containment containers for disposal storage of hazardous liquid wastes in janitorial areas.			1
1			Credit 6.1	Controllability of Systems, Lighting	Provide individual lighting controls for 90% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. In open office areas, this can be achieved with task lighting. AND Provide lighting system controllability for all shared multi-occupant spaces to enable lighting adjustment that meets group needs and preferences.	In classrooms, multilevel lighting, considered similar to conference rooms.		1
	1		Credit 6.2	Controllability of Systems, Thermal Comfort	Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. This can be achieved by the use of personal ventilation systems or an underfloor air distribution system with adjustable grilles in individual workspaces. AND Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to suit group needs and preferences.			1
		1	Credit 7.1	Thermal Comfort, Design	Design HVAC systems and the building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy.	Requires humidification.		1
		1	Credit 7.2	Thermal Comfort, Verification	Agree to implement a thermal comfort survey of building occupants within a period of 6 to 18 months after occupancy. Agree to develop a plan for corrective action if the survey results indicate that more than 20% of occupants are dissatisfied with thermal comfort in the building.			1
	1		Credit 8.1	Daylight & Views, Daylight 75% of Spaces	Provide a minimum daylight illumination level of at least 25 foot-candles in at least 75% of regularly occupied spaces.	Depends on fenestration.		1
	1		Credit 8.2	Daylight & Views, Views for 90% of Spaces	Achieve direct line of sight to the outdoor environment via vision glazing between 2'-6" and 7'-6" above finish floor for building occupants in 90% of all regularly occupied areas.	Depends on fenestration.		1

Yes	?	No	Credit No.	**Innovation & Design Process**	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available 6 Points
	1		Credit 1.1	Innovation in Design: Provide Specific Title	LEED EBOM Specific Credit - TBD			1
	1		Credit 1.2	Innovation in Design: Provide Specific Title	LEED EBOM Specific Credit - TBD			1
	1		Credit 1.3	Innovation in Design: Provide Specific Title	LEED EBOM Specific Credit - TBD			1
	1		Credit 1.4	Innovation in Design: Provide Specific Title	LEED EBOM Specific Credit - TBD			1
	1		Credit 1.5	Innovation in Design: Provide Specific Title	LEED EBOM Specific Credit - TBD			1
1			Credit 2	LEED® Accredited Professional				1

Yes	?	No	Credit No.	**Regional Priority Credits** Oswego, NY 13126 (Choose 4)	Project Requirements	Strategy / Documentation Comments	Cost Implication	Available 4 Points
2	**2**	**0**						
1			Credit 1.1	Regional Priority Credit: SSc3: Brownfield Redevelopment		Asbestos abatement work should make this achievable.		1
				Regional Priority Credit: SSc6.1: Stormwater Design, Quantity Control		Will depend on LEED project boundary and existing stormwater control systems.		1
	1		Credit 1.2	Regional Priority Credit: SSc7.1: Heat Island Effect, Non-roof		Will depend on LEED project boundary and existing hardscape materials.		1
	1		Credit 1.3	Regional Priority Credit: SSc7.2: Heat Island Effect, Roof		Will depend on roofing being in the scope of work.		
				Regional Priority Credit: EAc2: On-Site Renewable Energy (1%)		Will depend on college's willingness to pursue a PV system power purchase agreement (assuming the project budget will not support the purchase of a PV system).		1
1			Credit 1.4	Regional Priority Credit: MRc1.1: Maintain 75% of Existing Walls, Floors & Roof		Nature of this project should make this achievable.		

Total Achievable Yes	?	No	**Project Totals** (pre-certification estimates)	Available 110 Points
46	**49**	**15**	Total credits based on schematic design level assumptions.	

LEED Criteria - Certified: 40-49 points, Silver: 50-59 points, Gold: 60-79 points, Platinum: 80+ points

Program Summary

Description	Stns	SUNY Room Type Code	SUNY Guidelines NASF	Proposed Program SF/Stn	Proposed Program NASF	Notes
Classrooms						
Highly Specialized Classrm (Curriculum Lab) 1	30	1300	40	40	1200	
Highly Specialized Classrm (Curriculum Lab) 2	30	1300	40	40	1200	
Highly Specialized Classrm (Curriculum Lab) 3	30	1300	40	40	1200	
Moderately Specialized Classrm (Curriculum Lab) 4	30	1300	40	35	1050	
Moderately Specialized Classrm (Curriculum Lab) 5	30	1300	40	35	1050	
Basic Classroom (Curriculum Lab) 6	30	1300	40	35	1050	
Breakout / Student Lounge 1	5			20	100	Could overlap w Commons areas see Shared
Breakout / Student Lounge 2	10			20	200	Could overlap w Commons areas see Shared
Breakout / Student Lounge 3	15			20	300	Could overlap w Commons areas see Shared
Alternative School Classroom	15	1800	40	40	600	
Extended Testing Space	2			40	80	
Subtotal Classrooms					**8030**	
Curriculum & Instruction						
Curriculum & Instruction Department Office						
Secretary	3	3300	80	80	240	Shared office space
Waiting	3		180/Div	40	120	
Student Workers	2			30	60	Shared office space
Work Room/File Room	1	3450		300	300	Dept Mailroom, copy, FAX, office supplies, etc.
Graduate Studies Space	6			30	180	
Department Chair Office	1	3001	240	240	240	
Faculty Office 1	1	3001	120	120	120	
Faculty Office 2	1	3001	120	120	120	
Faculty Office 3	1	3001	120	120	120	
Faculty Office 4	1	3001	120	120	120	
Faculty Office 5	1	3001	120	120	120	
Faculty Office 6	1	3001	120	120	120	
Faculty Office 7	1	3001	120	120	120	

Description	Stns	SUNY Room Type Code	SUNY Guidelines NASF	Proposed Program SF/Stn	Proposed Program NASF	Notes
Faculty Office 8	1	3001	120	120	120	
Faculty Office 9	1	3001	120	120	120	
Faculty Office 10	1	3001	120	120	120	
Faculty Office 11	1	3001	120	120	120	
Faculty Office 12	1	3001	120	120	120	
Faculty Office 13	1	3001	120	120	120	
Faculty Office 14	1	3001	120	120	120	
Faculty Office 15	1	3001	120	120	120	
Faculty Office 16	1	3001	120	120	120	
Faculty Office 17	1	3001	120	120	120	
Faculty Office 18	1	3001	120	120	120	
Faculty Office 19	1	3001	120	120	120	
Faculty Office 20	1	3001	120	120	120	
Faculty Office 21	1	3001	120	120	120	
Faculty Office 22	1	3001	120	120	120	
Faculty Office 23	1	3001	120	120	120	
Faculty Office 24	1	3001	120	120	120	
Faculty Office 25	1	3001	120	120	120	
Faculty Office 26	1	3001	120	120	120	
Faculty Office 27	1	3001	120	120	120	
Faculty Office 28	1	3001	120	120	120	
Faculty Office 29	1	3001	120	120	120	
Faculty Office 30	1	3001	120	120	120	
Faculty Office 31	1	3001	120	120	120	
Faculty Office 32	1	3001	120	120	120	
Faculty Office 33	1	3001	120	120	120	
Faculty Office 34	1	3001	120	120	120	
Faculty Office 35	1	3001	120	120	120	
Faculty Office 36	1	3001	120	120	120	

Program Summary (continued)

Description	Stns	SUNY Room Type Code	SUNY Guidelines NASF	Proposed Program SF/Stn	Proposed Program NASF	Notes
Faculty Office 37	1	3001	120	120	120	
Faculty Office 38	1	3001	120	120	120	
Faculty Office 39	1	3001	120	120	120	
Faculty Office 40	1	3001	120	120	120	
Adjunct Faculty Office	3	3001	80	80	240	
Graduate Studies Director	1	3001	180	180	180	
Project SMART	3	3300/3600	80	80	240	
Advisement Office Suite	1				0	
Reception/Advisement space	10			80	800	Reception & 5 stations for one-on-oneAdvisement
Director Office	1	3001	120	120	120	
Coordinator Office	1	3001	120	120	120	
Graduate Students Office	5			30	150	
Subtotal					**7790**	
Counseling & Psychological Services						
CPS Department Office						
Secretary	1	3300	80	80	80	Shared office space
Waiting	2		180	40	80	
Student Workers	2			30	60	Shared office space
Work Room/File Room	1	3450		300	300	Dept Mailroom, copy, FAX, office supplies, etc.
Department Chair Office	1	3001	240	240	240	
Faculty Office 1	2	3001	120	120	240	
Faculty Office 2	1	3001	120	120	120	
Faculty Office 3	1	3001	120	120	120	
Faculty Office 4	1	3001	120	120	120	
Faculty Office 5	1	3001	120	120	120	
Faculty Office 6	1	3001	120	120	120	
Faculty Office 7	1	3001	120	120	120	

Description	Stns	SUNY Room Type Code	SUNY Guidelines NASF	Proposed Program SF/Stn	Proposed Program NASF	Notes
Faculty Office 8	1	3001	120	120	120	
Faculty Office 9	1	3001	120	120	120	
Faculty Office 10	1	3001	120	120	120	
Faculty Office 11	1	3001	120	120	120	
Adjunct Faculty Office	3	3001	80	80	240	
CPS Lab						
Seminar / Group Counseling Room	10	1501	16	20	200	
Large Observation Room	10	1501	16	16	160	
Play Sound Art Room	3	1501		100	300	
Work Files/Storage	1	1352			150	
Session Room 1	2	1501	40	50	100	
Session Room 2	2	1501	40	50	100	
Session Room 3	2	1501	40	50	100	
Session Room 4	2	1501	40	50	100	
Session Room 5	2	1501	40	50	100	
Observation Room	2	1501		40	80	
Observation Room	2	1501		40	80	
Video Room	1	1501	60	150	150	
Server	1	1352		50	50	
Lucy Wing Resource Center	4	1352	100	120	480	
Subtotal CPS					**4590**	
Health Promotion and Wellness						
Exercise Lab	30		40	40	1200	
Exercise Lab Storage	1			100	100	
Subtotal HPW					**1300**	

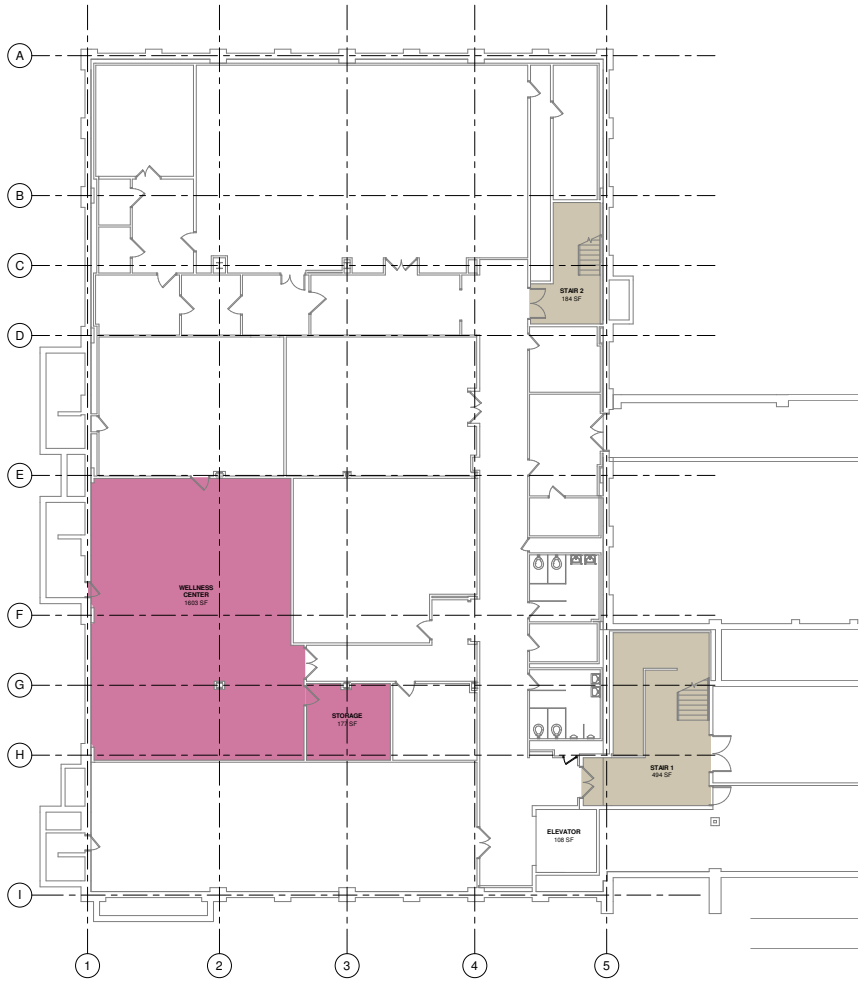
Program Summary (continued)

Description	Stns	SUNY Room Type Code	SUNY Guidelines NASF	Proposed Program SF/Stn	Proposed Program NASF	Notes
Common Shared Spaces						
Quiet Space	15	3450		20	300	
Conference Room 1	15	3450	20	30	450	
Conference Room 2	15	3450	20	30	450	
Conference Room 3	15	3450	20	30	450	
Kitchenette	1	6006	40		100	
Commons / Student Lounge 1	5	6002	20-24	20	100	Could overlap w Breakout see Classrooms
Commons / Student Lounge 2	10	6002	20-24	20	200	Could overlap w Breakout see Classrooms
Commons / Student Lounge 3	15	6002	20-24	20	300	Could overlap w Breakout see Classrooms
Mail Room	1				200	to serve building
Subtotal Shared					**2550**	
TOTAL NASF					**24,260**	

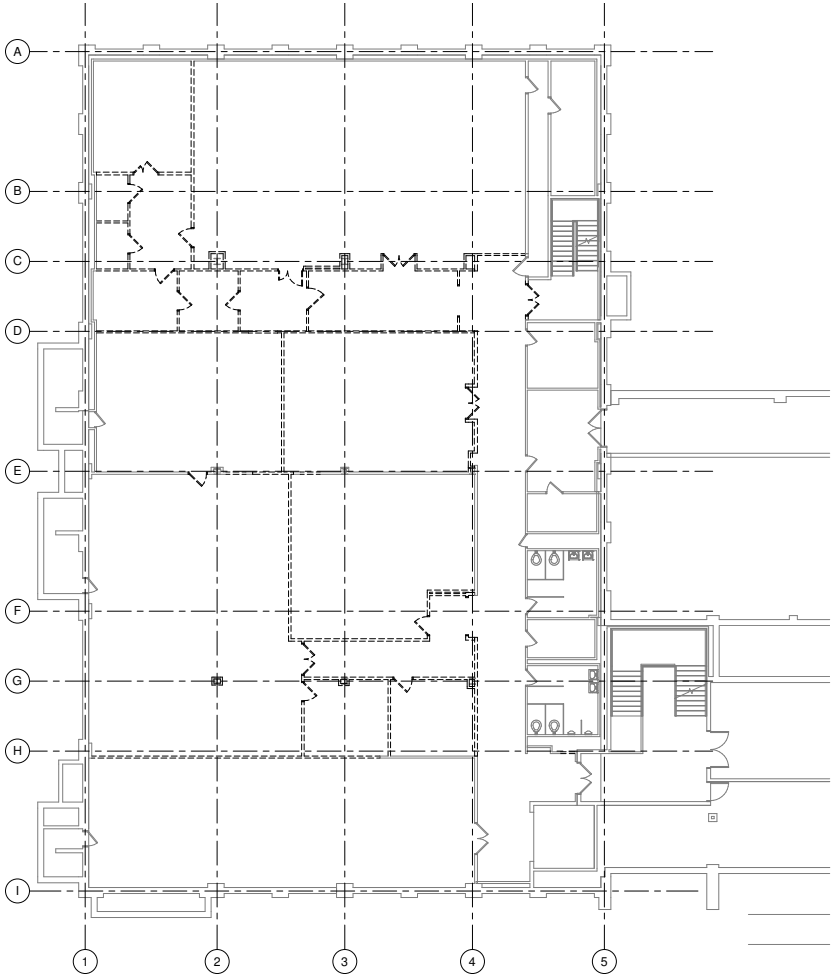
Schematic Design

As a strategy for budget management, the project comprises a base scope and several alternates that could be included if budget allows. The following is a summary of the programmatic and architectural scopes as shown on the floor plans and elevations. More detailed information is included in each section of this report.

Basement – Basic Scope: A space will be renovated for the Wellness Center, along with a small adjacent storage space. Other areas are unchanged.
Basement – Alternate Scope: The basement is completely renovated for four new classrooms, the Wellness Center, and a large, central Commons.
First Floor – Basic Scope: There are minor renovations to create more offices and a central Commons.
First Floor – Alternate Scope 1: A programmatic variation, the renovations include an additional classroom in lieu of the Commons in the Base Scope.
First Floor – Alternate Scope 2: The renovation scope is the same as the Base Scope, but introduces an opening in the floor of the Commons to provide a physical connection with the similar space in the basement below.
Second Floor – Basic Scope: After demolition and abatement under a separate contract, the second floor will undergo complete renovation.
Third Floor – Basic Scope: After demolition and abatement under a separate contract, the third floor will undergo complete renovation.
Windows – Basic Scope: Replace all existing windows with new windows.
Windows – Alternate Scope 1: Add large windows on the second and third floors in the center bay of the south façade, to match first floor windows added in 2006. Add windows on the second and third floors in the second bay north of the south end of the east façade, to match the proportions of the original windows.
Windows – Alternate Scope 2: Add windows in the remaining bays of the south façade to match the proportions of the original windows.
Windows – Alternate Scope 3: Add windows in the remaining bays of the east and west façades to match the proportions of the original windows.



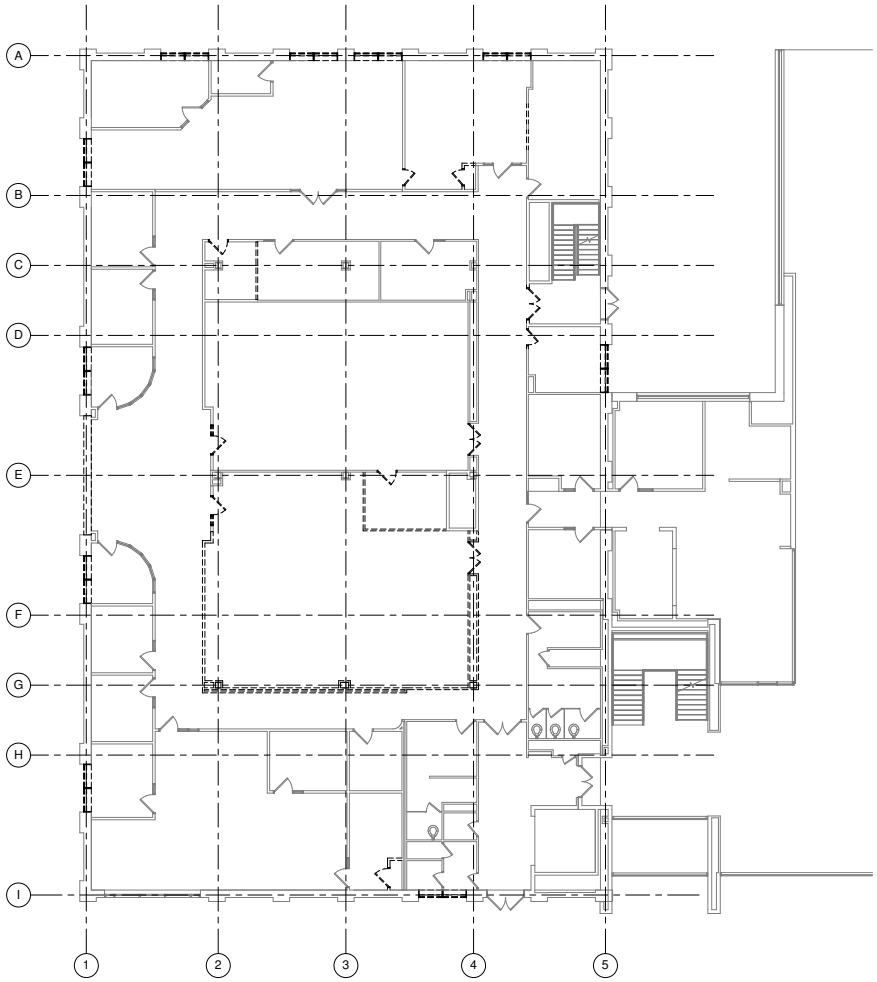
Basement — Basic Scope



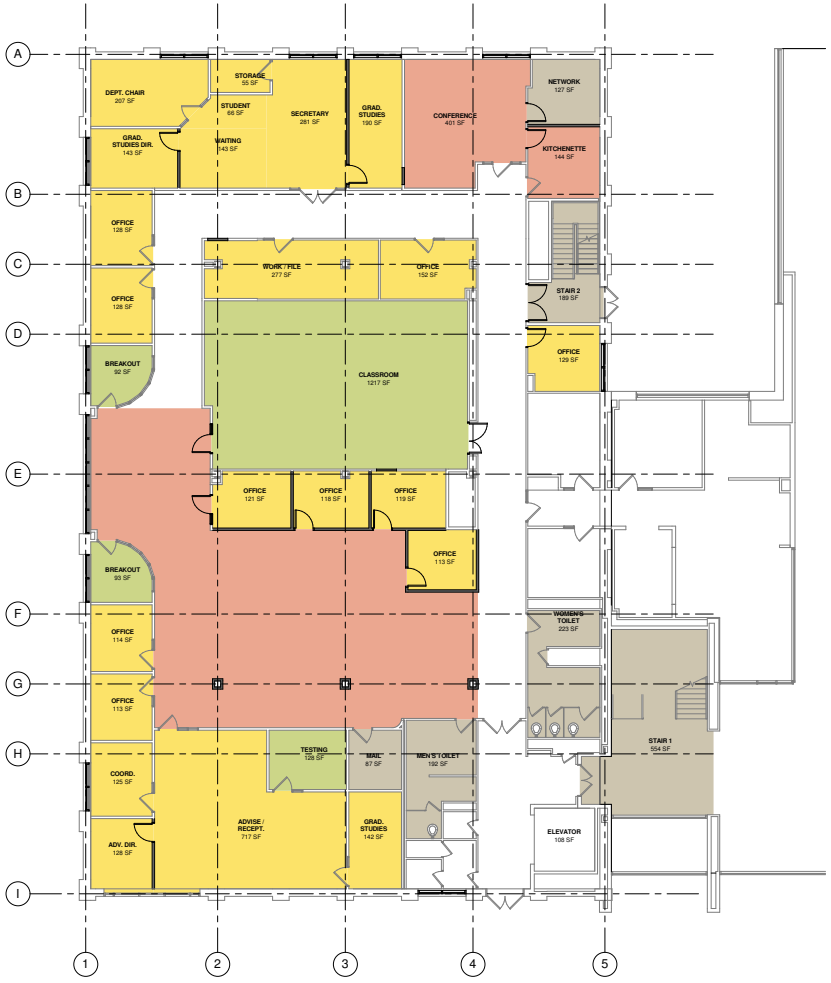
Basement — Alternate Scope Demolition

Basement — Alternate Scope

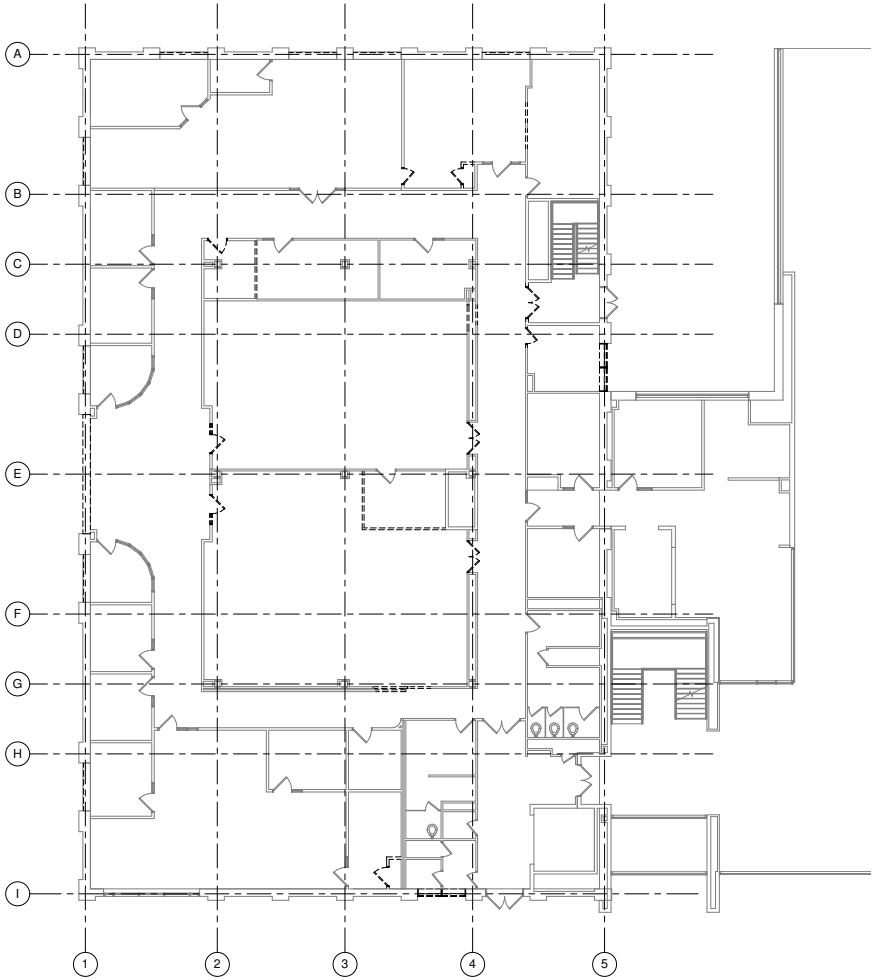
Schematic Design (continued)



First Floor — Basic Scope Demolition



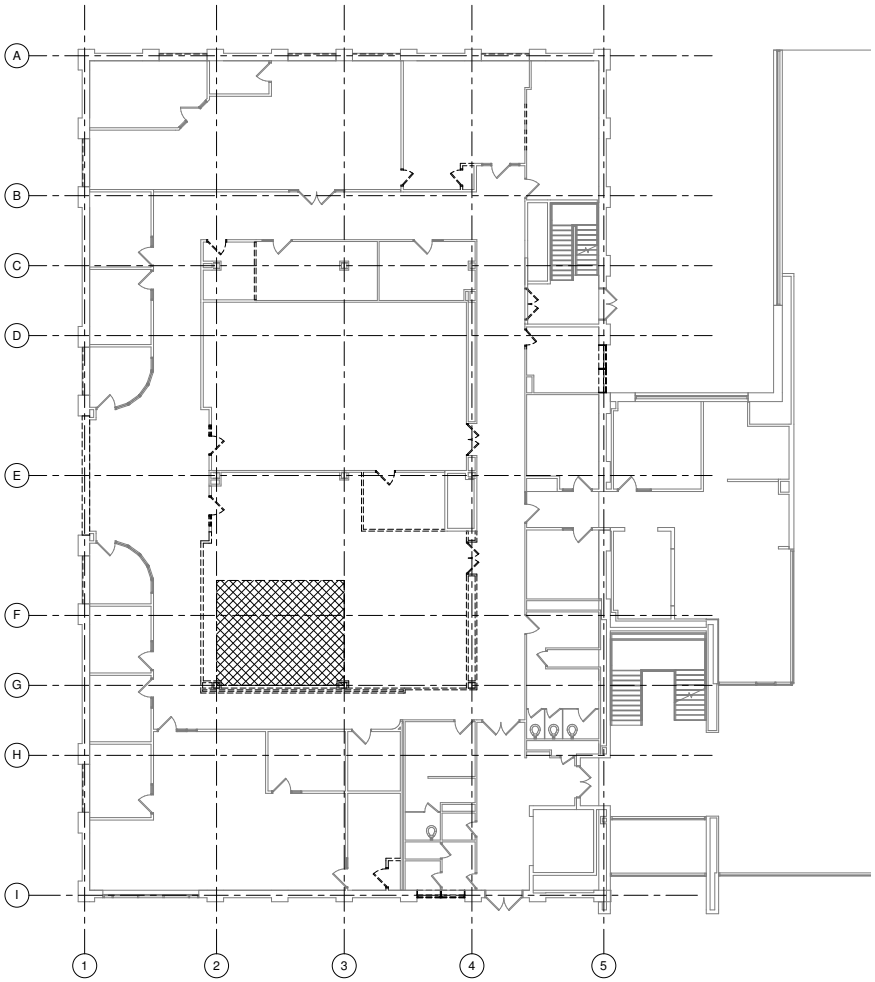
First Floor — Basic Scope

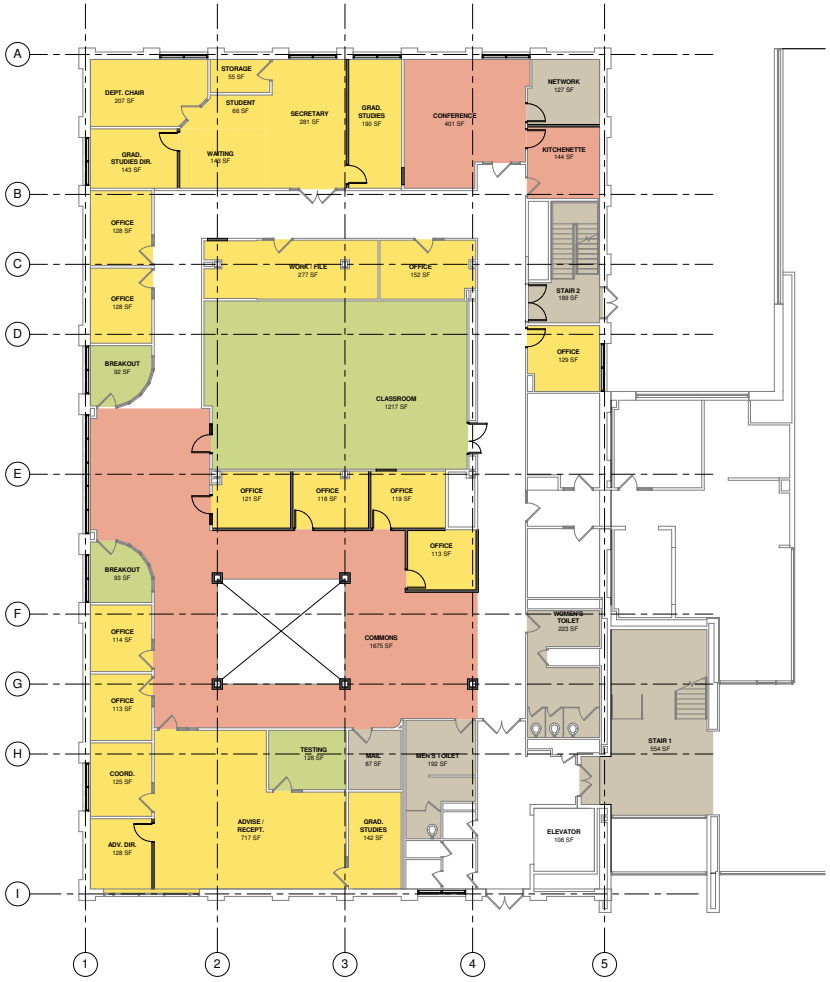


First Floor — Alternate Scope 1 Demolition

First Floor — Alternate Scope 1

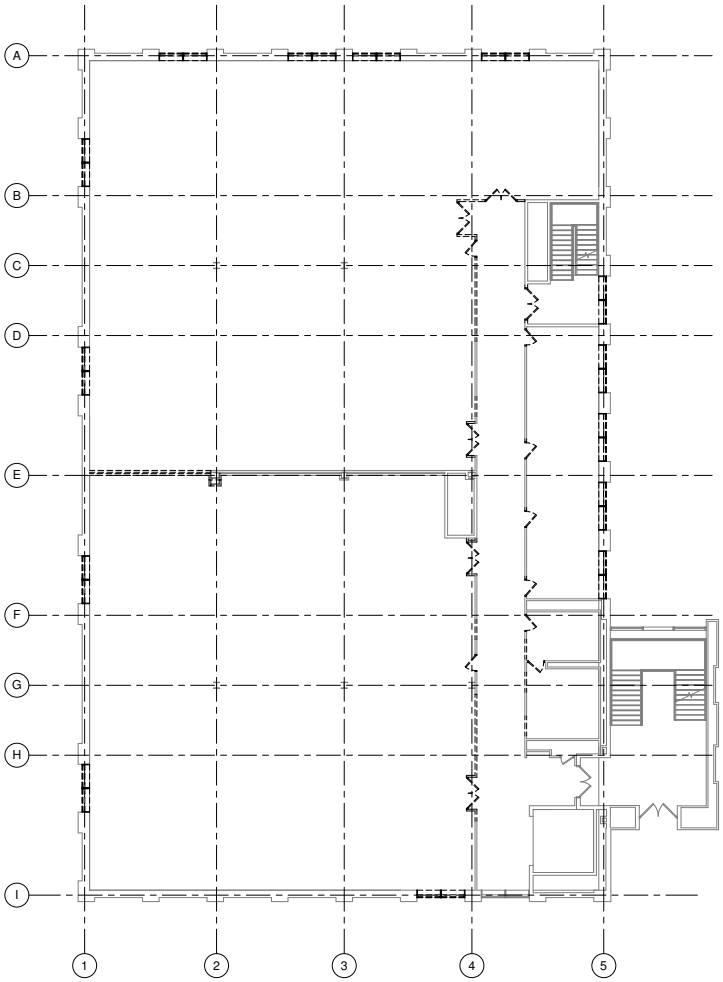
Schematic Design (continued)



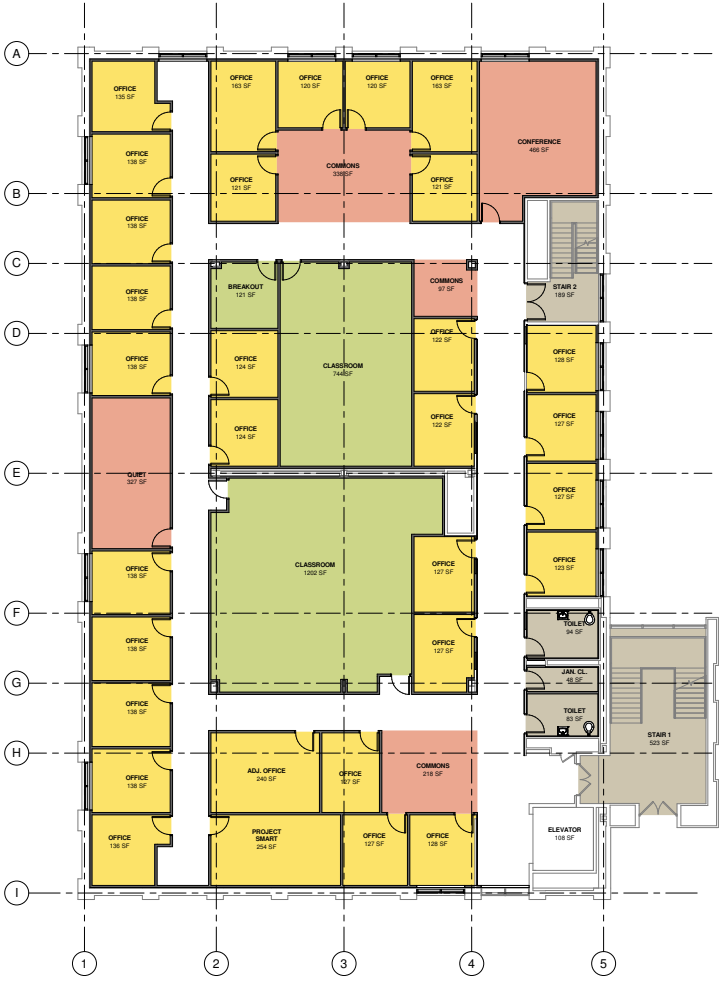


First Floor — Alternate Scope 2 Demolition

First Floor — Alternate Scope 2

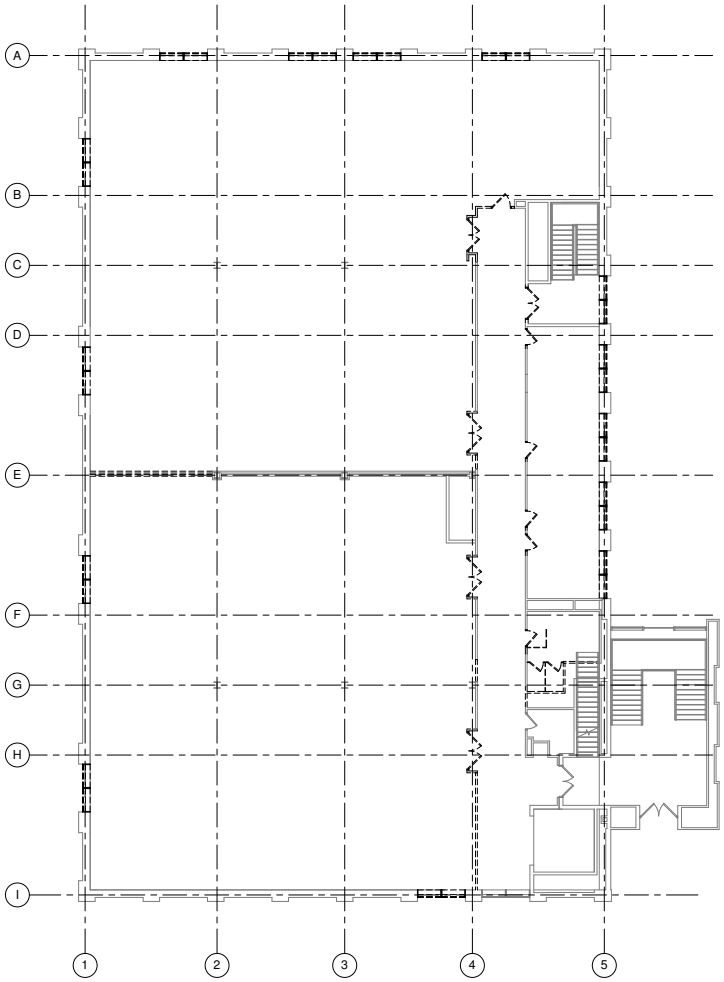


Second Floor — Basic Scope Demolition



Second Floor — Basic Scope

Schematic Design (continued)



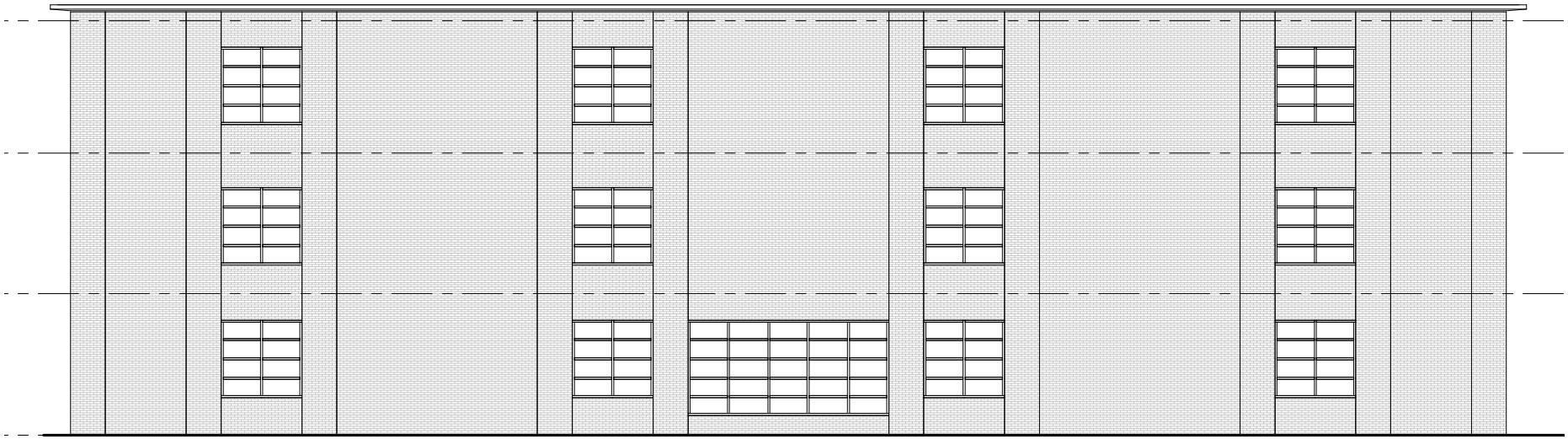
Third Floor — Basic Scope Demolition

Third Floor — Basic Scope

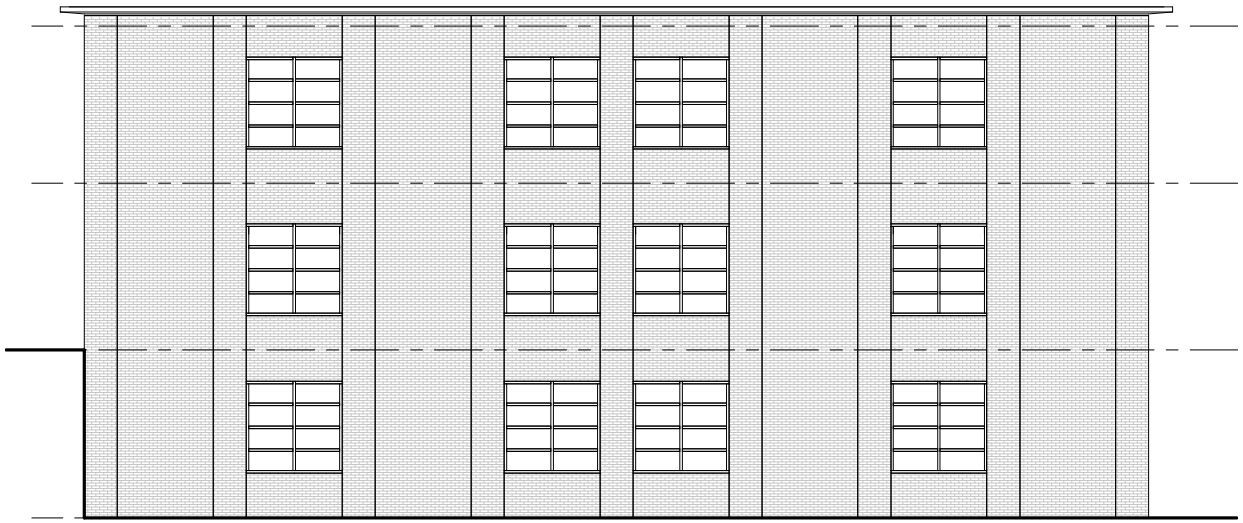
Department Legend

- Classrooms
- Curriculum & Instruction
- Counseling & Psychological Services
- Health Promotion & Wellness
- Common Shared Spaces
- Support Spaces
- Mechanical

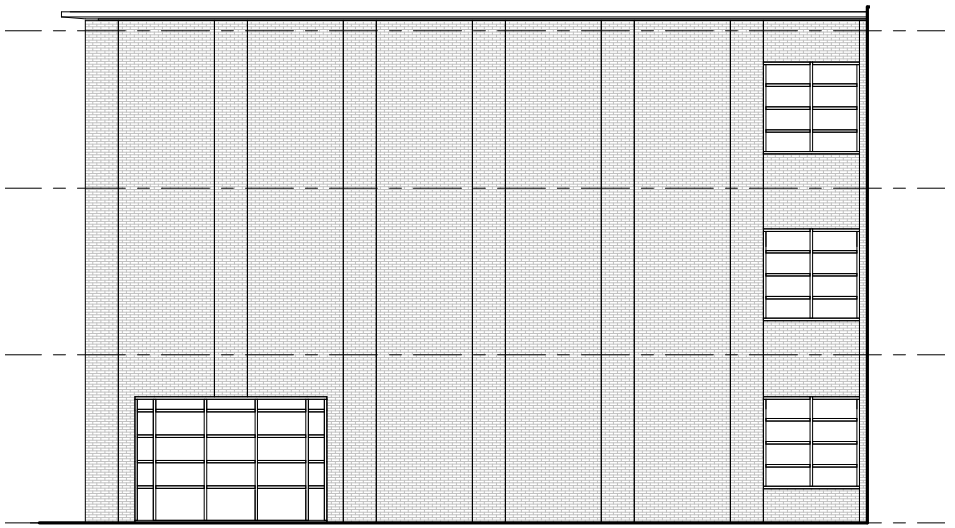
Schematic Design (continued)



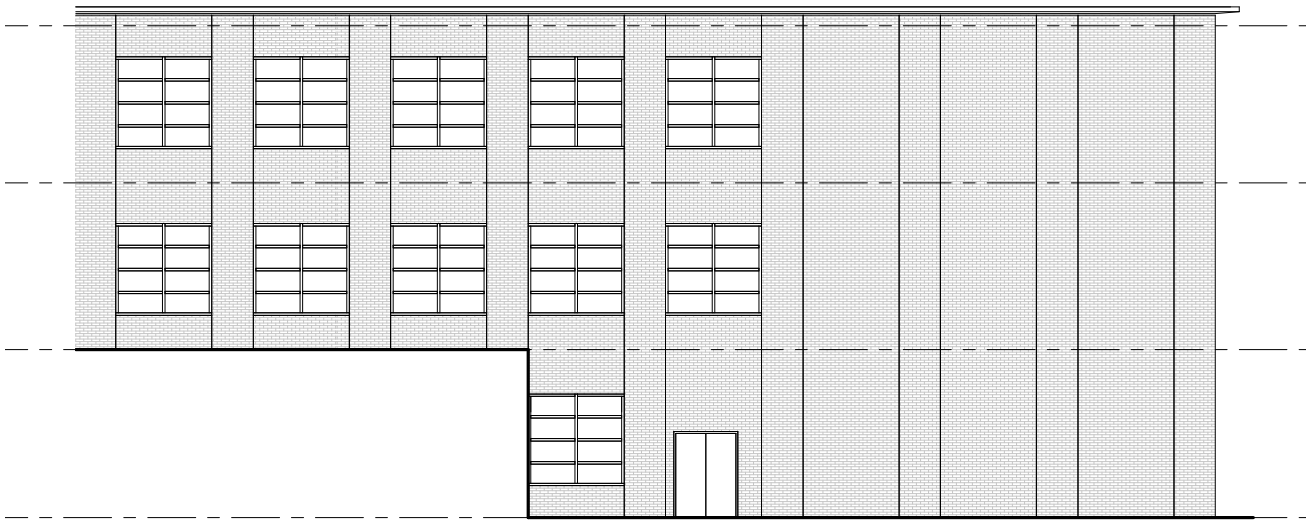
South Elevation – Basic Scope



West Elevation – Basic Scope

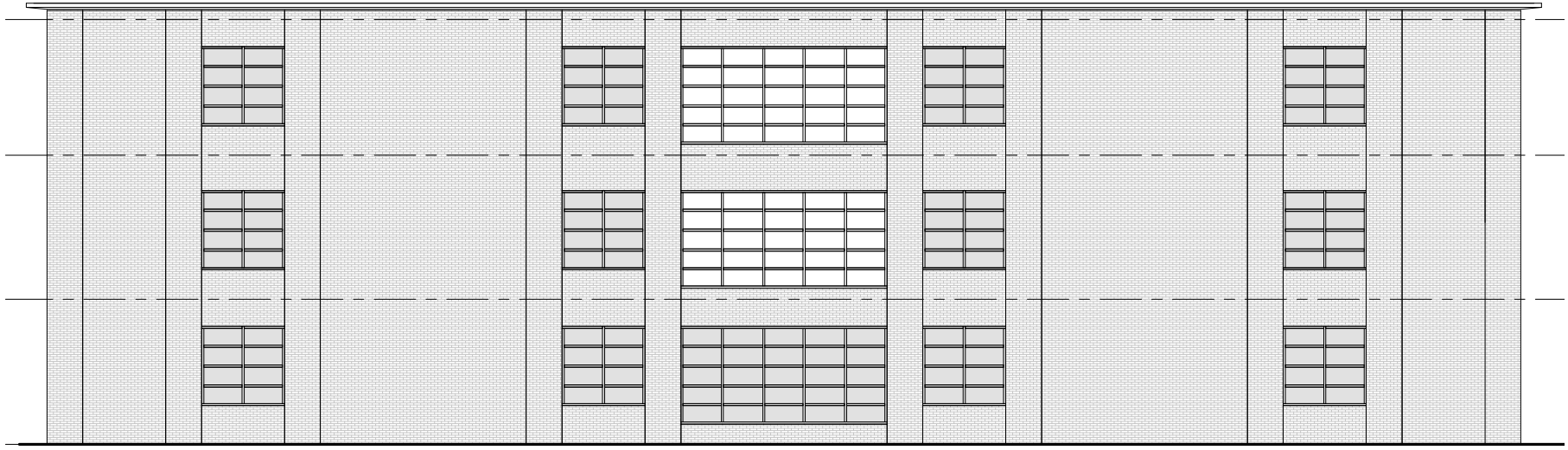


East Elevation – Basic Scope

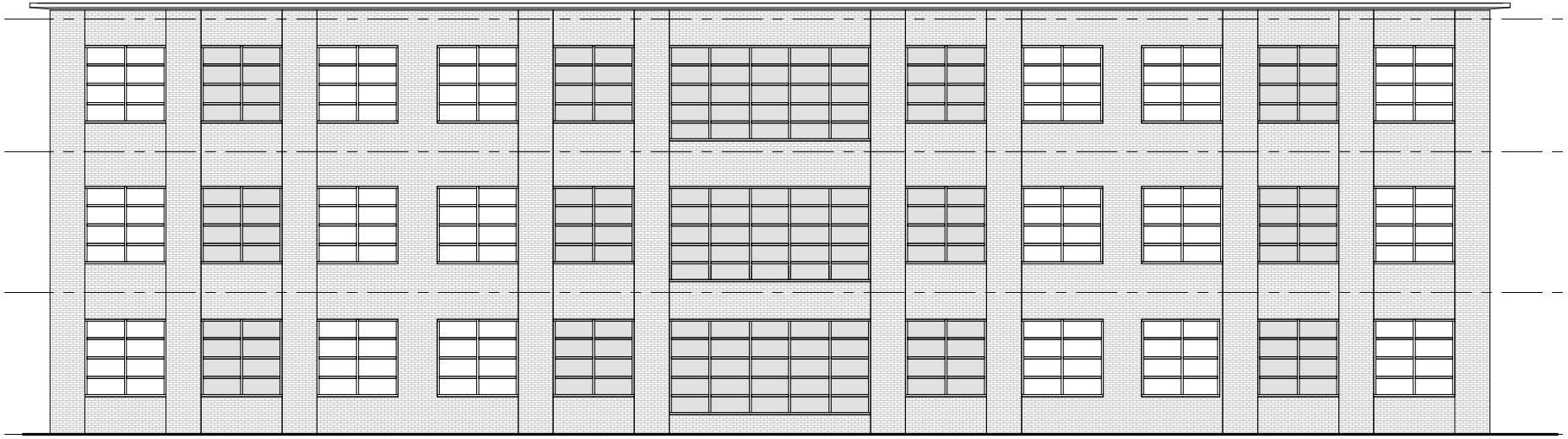


North Elevation – Basic Scope

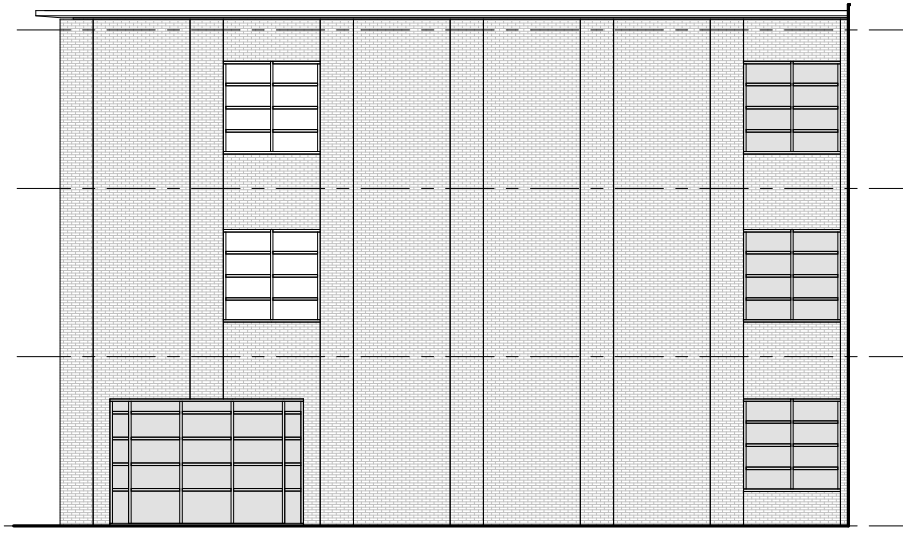
Schematic Design (continued)



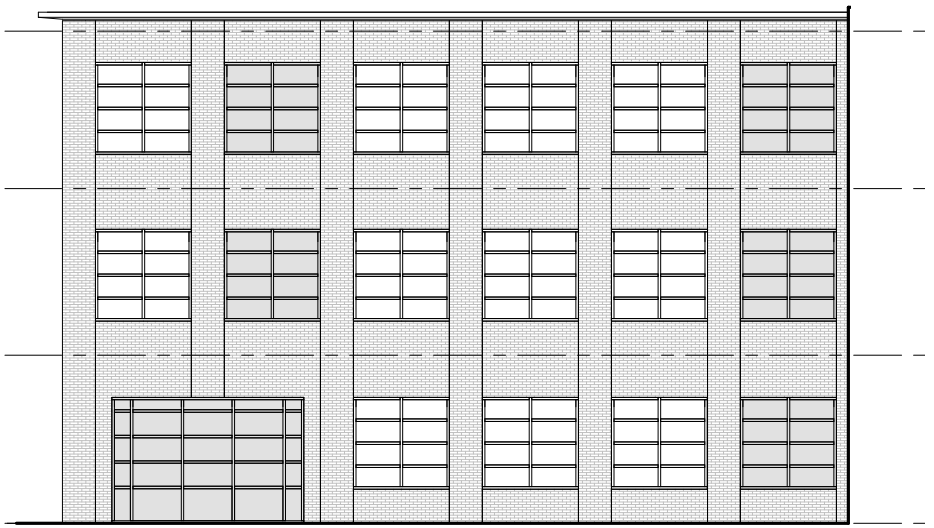
South Elevation – Alternate Scope 1



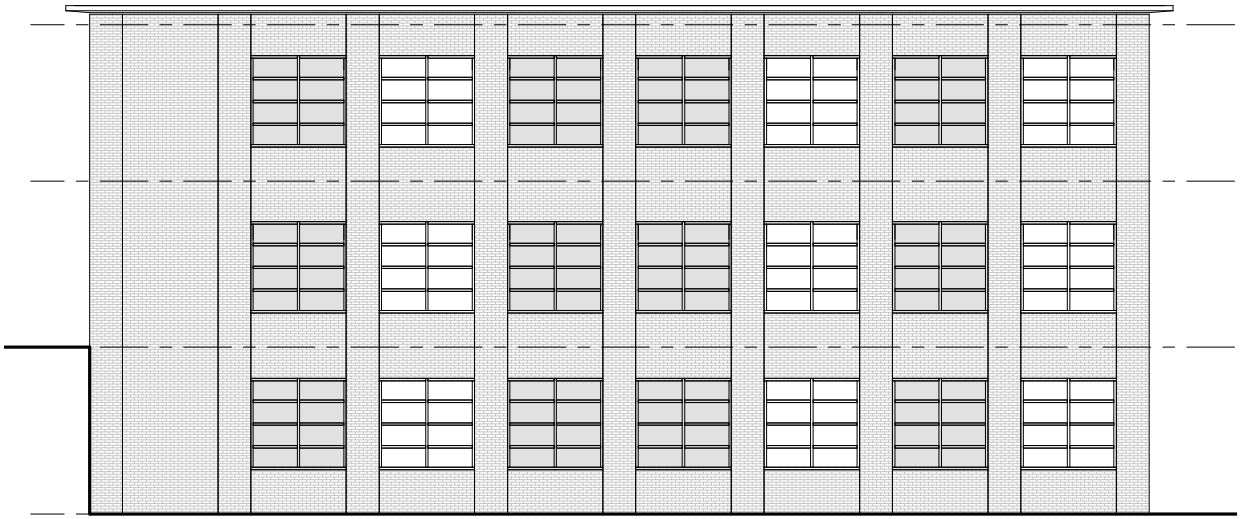
South Elevation – Alternate Scope 2



East Elevation – Alternate Scope 1



East Elevation – Alternate Scope 3



West Elevation – Alternate Scope 3

Schematic Cost Estimate Summary

PROJECT SUMMARY		TOTAL COST
RENOVATIONS		**$8,103,000**
ALTERNATE #1 - STRUCTURAL FLOOR OPENING	ADD	$58,000
ALTERNATE #2A - ADDITIONAL WINDOW OPENINGS	ADD	$87,000
ALTERNATE #2B - ADDITIONAL WINDOW OPENINGS	ADD	$262,000
ALTERNATE #2C - ADDITIONAL WINDOW OPENINGS	ADD	$335,000
ALTERNATE #3 - BASEMENT RENOVATION	ADD	$1,272,000
ALTERNATE #4 - PERIMETER WALL CAVITY REPLACEMENT	ADD	$189,000
ALTERNATE #5 - SPRAY FIREPROOFING - BASEMENT	ADD	$74,000
ALTERNATE #6 - SPRAY FIREPROOFING - 2ND FLOOR	ADD	$74,000
ALTERNATE #7 - SPRAY FIREPROOFING - 3RD FLOOR	ADD	$74,000
ALTERNATE #8 - ALTERNATE HVAC SYSTEM	ADD	$470,000

ESTIMATE NOTES / ASSUMPTIONS:

1. BASED ON CHIANG / O'BRIEN ARCHITECTS DRAWINGS, NARRATIVES AND EMAIL CLARIFICATIONS RECEIVED 2/8/2016; REVISIONS PER MARCH 11, 2016 EMAIL AND DRAWINGS.
2. NEW YORK STATE PREVAILING WAGE RATES FOR OSWEGO COUNTY.
3. CONSTRUCTION START SUMMER 2017; COMPLETION SUMMER 2018, MID-POINT WINTER 2017.
4. ESCALATION SHOULD BE ADDED AT 3.5% PER YEAR BEYOND PROJECTED MID-POINT.
5. NORMAL WORKING HOURS AND CONDITIONS; EXCLUDES ANY PREMIUMS FOR CONDENSED CONSTRUCTION SCHEDULE.
6. SINGLE PRIME CONTRACT (COMPETITIVELY BID).
7. PREMISES TO BE VACANT DURING CONSTRUCTION.
8. ENTIRE PROJECT BID AT ONE TIME.
9. PARTITION / ROOM LAYOUT BASED ON CHIANG / O'BRIEN ARCHITECTS PRESENTATION OF OPTION 4 FOR BASEMENT AND 1ST FLOOR; OPTION 3 FOR 2ND AND 3RD FLOORS.
10. ESTIMATE EXCLUDES:
    - SOFT COSTS (FINANCING, DESIGN FEES, ETC.)
    - CONSTRUCTION CONTINGENCY (OWNER CHANGE ORDER RESERVE)
    - CONSTRUCTION MANAGER FEES (IF APPLICABLE)
    - SOIL REMEDIATION
    - FURNITURE, FIXTURES AND EQUIPMENT (FF&E)
    - SITEWORK

Appendices

Appendix A

WILBER HALL RENOVATIONS SCHOOL OF EDUCATION - PHASE III 15-185

STATE UNIVERSITY OF NEW YORK COLLEGE AT OSWEGO

CHIANG / O'BRIEN ARCHITECTS **REVISED 3/16/2016**
REVISED 2/18/2016

SCHEMATIC DESIGN ESTIMATE 2/16/2016

S U M M A R Y		TOTAL MATERIAL	TOTAL LABOR	TOTAL COST	BLDG $ / GSF	% OF TOTAL
DIVISION 2 - ASBESTOS ABATEMENT		$29,000	$81,000	$110,000	$3.66	1.36%
DIVISION 2 - DEMOLITION		$8,000	$24,000	$32,000	$1.06	0.39%
DIVISION 4 - MASONRY		$26,000	$73,000	$99,000	$3.29	1.22%
DIVISION 5 - METALS		$99,000	$35,000	$134,000	$4.45	1.65%
DIVISION 6 - WOOD AND PLASTICS		$69,000	$22,000	$90,000	$2.99	1.11%
DIVISION 7 - THERMAL & MOISTURE PROTECTION		$148,000	$157,000	$305,000	$10.14	3.76%
DIVISION 8 - DOORS AND WINDOWS		$328,000	$113,000	$441,000	$14.66	5.44%
DIVISION 9 - FINISHES		$401,000	$393,000	$794,000	$26.39	9.80%
DIVISION 10 - SPECIALTIES		$44,000	$12,000	$56,000	$1.86	0.69%
DIVISION 12 - FURNISHINGS		$35,000	$6,000	$40,000	$1.33	0.49%
DIVISION 21 - FIRE PROTECTION		$57,000	$84,000	$141,000	$4.69	1.74%
DIVISION 22 - PLUMBING		$99,000	$90,000	$188,000	$6.25	2.32%
DIVISION 23 - HVAC		$1,269,000	$1,093,000	$2,362,000	$78.51	29.15%
DIVISION 26 - ELECTRICAL		$568,000	$474,000	$1,042,000	$34.64	12.86%
SUB-TOTAL		$3,180,000	$2,657,000	$5,834,000	$193.92	72.00%
GENERAL CONDITIONS	8%			$467,000	$15.52	5.76%
SUB-TOTAL				$6,301,000	$209.44	77.76%
OVERHEAD AND PROFIT	6%			$378,000	$12.56	4.66%
SUB-TOTAL				$6,679,000	$222.00	82.43%
DESIGN CONTINGENCY	15%			$1,002,000	$33.31	12.37%
SUB-TOTAL				$7,681,000	$255.31	94.79%
ESCALATION (Mid-Point Winter 2017)	5.5%			$422,000	$14.03	5.21%
TOTAL - RENOVATIONS			**30,085 GSF**	**$8,103,000**	**$269.34**	**100.00%**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 2 - ASBESTOS ABATEMENT						
Remove suspended metal grid and lay-in acoustic tile ceilings below asbestos containing spray fireproofing and dispose - Phase III	2,889 SF	$2.50	$7,223	$9.35	$27,012	$34,235
- Previous Phases	33,757 SF					N/A
Remove asbestos containing spray fireproofing and dispose - Phase III	2,889 SF	4.00	11,556	10.00	28,890	40,446
- Previous Phases	33,757 SF					N/A
Remove windows as asbestos containing and dispose	2,885 SF	3.00	8,655	8.01	23,109	31,764
Miscellaneous asbestos containing pipe insulation and mudded fittings	1 ALLOW	1,000.00	1,000	1,000.00	1,000	2,000
Temporary partitions / protection	1 ALLOW	1,000.00	1,000	1,000.00	1,000	2,000
Air monitoring	LS					BY OWNER
TOTAL - DIVISION 2 - ASBESTOS ABATEMENT			**29,434**		**81,011**	**110,445**
TOTAL - DIVISION 2 - ASBESTOS ABATEMENT SAY			**$29,000**		**$81,000**	**$110,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 2 - DEMOLITION						
FLOORS						
Remove floor finishes						
- Phase III	2,727 SF	$0.25	$682	$1.35	$3,681	$4,363
- Previous Phases	19,164 SF					N/A
WALLS						
Remove doors, frames and hardware						
- Single	18 EA	0.00	0	85.50	1,539	1,539
- Pair	16 PR	0.00	0	114.00	1,824	1,824
Remove partition walls	1,985 SF	0.15	298	2.75	5,459	5,757
FIXTURES / CASEWORK						
Remove toilet partitions	9 EA	0.00	0	57.00	513	513
Remove toilet room accessories (per room allowance)						
- Single use	1 EA	0.00	0	171.00	171	171
- Group use	3 EA	0.00	0	285.00	855	855
STAIRS						
Remove post mounted railings	236 LF	0.00	0	5.70	1,345	1,345
Remove wall mounted handrail	153 LF	0.00	0	2.85	436	436
GENERAL						
Miscellaneous removals	1 ALLOW	2,500.00	2,500	5,000.00	5,000	7,500
Temporary protection / partitions	1 ALLOW	750.00	750	750.00	750	1,500
Dispose of debris (per dumpster)	6 EA	600.00	3,600	456.00	2,736	6,336
TOTAL - DIVISION 2 - DEMOLITION			**7,830**		**24,309**	**32,139**
TOTAL - DIVISION 2 - DEMOLITION SAY			**$8,000**		**$24,000**	**$32,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 4 - MASONRY						
Remove face brick at exterior column projections and dispose	1,212 SF	$1.05	$1,273	$6.50	$7,878	$9,151
Face brick at column projections	1,212 SF	10.00	12,120	30.00	36,360	48,480
Repair face brick cracks	17 LF	25.00	425	85.50	1,454	1,879
Replace damaged brick	1 LS	250.00	250	456.00	456	706
Re-point face brick (per location)	8 EA	150.00	1,200	570.00	4,560	5,760
Scrape, prime and paint steel columns	168 VLF	5.00	840	13.60	2,285	3,125
Miscellaneous masonry patching / re-pointing	1 ALLOW	5,000.00	5,000	15,000.00	15,000	20,000
Scaffolding / lift	1 ALLOW	5,000.00	5,000	5,000.00	5,000	10,000
TOTAL - DIVISION 4 - MASONRY			**26,108**		**72,993**	**99,101**
TOTAL - DIVISION 4 - MASONRY	**SAY**		**$26,000**		**$73,000**	**$99,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 5 - METALS						
Galvanized tube steel framing at rooftop equipment screen (based on 6 lbs / sf)	6.8 TON	$4,000.00	$27,200	$2,500.00	$17,000	$44,200
Miscellaneous steel	1 ALLOW	10,000.00	10,000	5,000.00	5,000	15,000
Post mounted railings - Stainless steel and glass	162 LF	300.00	48,600	57.00	9,234	57,834
- Painted steel	74 LF	125.00	9,250	28.50	2,109	11,359
Wall mounted handrails - Stainless steel	82 LF	35.00	2,870	10.24	840	3,710
- Painted steel	71 LF	19.00	1,349	10.24	727	2,076
TOTAL - DIVISION 5 - METALS			**99,269**		**34,910**	**134,179**
TOTAL - DIVISION 5 - METALS	**SAY**		**$99,000**		**$35,000**	**$134,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 6 - WOOD AND PLASTICS						
Wood blocking	1 ALLOW	$1,500.00	$1,500	$5,000.00	$5,000	$6,500
Built-in casework (allowances)						
- Base cabinets and counters	94 LF	200.00	18,800	57.00	5,358	24,158
- Wall cabinets	94 LF	100.00	9,400	28.50	2,679	12,079
- Reception desks	16 LF	400.00	6,400	85.50	1,368	7,768
- Vanities	16 LF	300.00	4,800	57.00	912	5,712
Window sills	396 LF	45.00	17,820	7.30	2,891	20,711
Miscellaneous casework and trim	1 ALLOW	10,000.00	10,000	3,500.00	3,500	13,500
TOTAL - DIVISION 6 - WOOD AND PLASTICS			**68,720**		**21,708**	**90,428**
TOTAL - DIVISION 6 - WOOD AND PLASTICS SAY			**$69,000**		**$22,000**	**$90,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 7 - THERMAL AND MOISTURE PROTECTION						
Remove existing roofing, copings and flashings and dispose	14,174 SF	$0.63	$8,930	$1.02	$14,457	$23,387
Rigid insulation and modified bitumen roofing	14,174 SF	9.00	127,566	9.00	127,566	255,132
Treated wood blocking and aluminum fascia	659 LF	9.00	5,931	10.59	6,979	12,910
Flash roofing into existing walls	145 LF	7.35	1,066	19.40	2,813	3,879
Joint sealants and caulk	1 ALLOW	5,000.00	5,000	5,000.00	5,000	10,000
TOTAL - DIVISION 7 - THERMAL AND MOISTURE PROTECTION			**148,493**		**156,815**	**305,308**
TOTAL - DIVISION 7 - THERMAL AND MOISTURE PROTECTION SAY			**$148,000**		**$157,000**	**$305,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 8 - DOORS AND WINDOWS						
Aluminum and glass doors, frames and hardware - Pair	1 PR	$5,100.00	$5,100	$684.00	$684	$5,784
Hollow metal frames, flush solid core wood doors, hardware and finish - Single	88 EA	900.00	79,200	342.00	30,096	109,296
- Pair	16 PR	1,800.00	28,800	570.00	9,120	37,920
Aluminum and glass windows	2,885 SF	35.00	100,975	12.00	34,620	135,595
Observation windows with one-way mirrors	5 EA	875.00	4,375	228.00	1,140	5,515
Louvered screen wall at roof	2,249 SF	35.00	78,715	11.70	26,313	105,028
Borrowed lites	1 ALLOW	20,000.00	20,000	7,500.00	7,500	27,500
Extruded aluminum sunshades	117 LF	90.00	10,530	28.50	3,335	13,865
TOTAL - DIVISION 8 - DOORS AND WINDOWS			**327,695**		**112,808**	**440,503**
TOTAL - DIVISION 8 - DOORS AND WINDOWS SAY			**$328,000**		**$113,000**	**$441,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 9 - FINISHES						
GYPSUM WALLBOARD ASSEMBLIES						
Metal stud and gypsum wallboard partitions						
- 2-sided	29,496 SF	$2.75	$81,114	$5.25	$154,854	$235,968
- 1-sided	1,050 SF	1.85	1,943	3.25	3,413	5,356
- Furring	23,599 SF	1.25	29,499	2.75	64,897	94,396
Metal stud and gypsum wallboard soffits and breaks including paint (based on 10% of total ceilings)	2,733 SF	5.00	13,665	10.00	27,330	40,995
FLOORS						
Prep floors	22,870 SF	0.06	1,372	0.57	13,036	14,408
Ceramic tile	587 SF	4.65	2,730	5.84	3,428	6,158
Carpet tile	2,042 SY	29.00	59,218	5.70	11,639	70,857
Rubber Fitness flooring	1,600 SF	6.75	10,800	1.75	2,800	13,600
Vinyl composition tile	1,674 SF	1.25	2,093	1.03	1,724	3,817
Rubber covered stair treads	269 LF	7.17	1,929	4.01	1,079	3,008
Rubber covered landings	362 SF	3.08	1,115	2.37	858	1,973
Ceramic base	196 LF	4.50	882	5.70	1,117	1,999
Terrazzo base	874 LF	11.00	9,614	10.24	8,950	18,564
Rubber base	5,421 LF	0.84	4,554	1.46	7,915	12,469
WALLS						
Ceramic wall tile	1,764 SF	4.10	7,232	4.82	8,502	15,734
Acoustic wall panels (allowance)	200 SF	13.20	2,640	3.47	694	3,334
Paint walls	63,146 SF	0.45	28,416	0.45	28,416	56,832
CEILINGS						
Suspended metal grid and lay-in acoustic tile ceilings	36,894 SF	3.85	142,042	1.41	52,021	194,063
TOTAL - DIVISION 9 - FINISHES			**400,858**		**392,673**	**793,531**
TOTAL - DIVISION 9 - FINISHES	**SAY**		**$401,000**		**$393,000**	**$794,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 10 - SPECIALTIES						
Toilet partitions	4 EA	$1,000.00	$4,000	$200.00	$800	$4,800
Toilet Room accessories (per room allowance) - Group use	2 EA	1,200.00	2,400	342.00	684	3,084
Marker boards	1 ALLOW	15,000.00	15,000	2,500.00	2,500	17,500
Tackboards	1 ALLOW	9,000.00	9,000	2,250.00	2,250	11,250
Projector screens	1 ALLOW	8,750.00	8,750	750.00	750	9,500
Miscellaneous specialties	1 ALLOW	5,000.00	5,000	5,000.00	5,000	10,000
TOTAL - DIVISION 10 - SPECIALTIES			**44,150**		**11,984**	**56,134**
TOTAL - DIVISION 10 - SPECIALTIES	**SAY**		**$44,000**		**$12,000**	**$56,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 12 - FURNISHINGS						
Window shades	2,885 SF	$12.00	$34,620	$2.00	$5,770	$40,390
TOTAL - DIVISION 12 - FURNISHINGS			**34,620**		**5,770**	**40,390**
TOTAL - DIVISION 12 - FURNISHINGS	**SAY**		**$35,000**		**$6,000**	**$40,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 21 - FIRE PROTECTION						
Remove existing fire protection systems to existing 6" main - exception is that First Floor piping and heads will be existing-to-remain	52,428 SF	$0.05	$2,621	$0.15	$7,864	$10,485
Equipment including backflow preventor, floor control valve stations, standpipe fire hose valves at all levels for 2 stairwells, etc.	52,428 SF	0.24	12,583	0.13	6,816	19,399
Sprinkler heads including modify FL1 sprinkler head locations as required	52,428 SF	0.35	18,350	0.42	22,020	40,370
Piping systems including standpipe mains and risers, sprinkler mains and sprinkler distribution piping, FL1 modify sprinkler piping as required for modified head locations	52,428 SF	0.45	23,593	0.90	47,185	70,778
TOTAL - DIVISION 21 - FIRE PROTECTION			**57,147**		**83,885**	**141,032**
TOTAL - DIVISION 21 - FIRE PROTECTION SAY			**$57,000**		**$84,000**	**$141,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 22 - PLUMBING						
Selective plumbing removals including existing domestic hot water generation equipment, domestic cold water service entry (basement, plumbing fixtures and branch fixture piping	1 LS	$7,500.00	$7,500	$8,960.00	$8,960	$16,460
Backflow preventor, meter and insulated piping at domestic water service entrance	1 LS	7,500.00	7,500	7,000.00	7,000	14,500
Double wall domestic hot water convertor including insulated piping, circulation pump, master mixing valve (standard hi/low type), thermal expansion tank, valves and accessories	1 LS	40,000.00	40,000	10,000.00	10,000	50,000
Plumbing fixtures including insulated fixture piping (stacked FL2 and FL3 restroom and janitor closet fixtures per floor, with limited non-restroom fixtures - e.g. kitchenette sinks, etc.) based on 20 fixtures total for building - per fixture	20 EA	1,500.00	30,000	2,000.00	40,000	70,000
Plumbing specialties (e.g. floor drains, trap seal primers, clean-out assemblies, water hammer arrestors, etc.) including related piping (e.g. sanitary waste and vent piping for floor drains, etc.)	52,428 SF	0.26	13,631	0.45	23,593	37,224
TOTAL - DIVISION 22 - PLUMBING			**98,631**		**89,553**	**188,184**
TOTAL - DIVISION 22 - PLUMBING	**SAY**		**$99,000**		**$90,000**	**$188,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING						
Remove existing hvac system	52,428 SF	$0.20	$10,486	$0.60	$31,457	$41,943
Equipment including DOAS hvac air handling units (2 @ 9000 cfm each), DOAS supply air VAV boxes, 4-pipe fan coil units, finned tube radiation, steam to hot water convertor, steam control valve station, hot water and chilled water pumps, hot and chilled water air separators and thermal expansion tanks, brazed plate heat exchanger glycol heating hot water coil for DOAS AHU preheat, including dedicated pump, air separator, thermal expansion tank, prefabricated supply and return piped valve assemblies, roof exhaust fan for restrooms and janitor closes, btuh meters for hot and chilled water, cabinet unit heaters, suspended unit heaters, other miscellaneous hvac equipment, etc.	52,428 SF	12.50	655,350	2.00	104,856	760,206
Insulated piping systems including steam and condensate, hot and chilled water, glycol hot water for DOAS AHU preheat, condensate drain, hangers, valves, specialties, etc.	52,428 SF	4.00	209,712	6.00	314,568	524,280
Galvanized steel ductwork including duct hangers, fittings, duct insulation (for DOAS supply air only), air inlets and outlets, fire dampers, etc.	52,428 SF	4.00	209,712	8.00	419,424	629,136
Testing, adjusting and balancing for air and water systems	52,428 SF	0.00	0	0.75	39,321	39,321
Controls and Energy Management including direct digital controls	52,428 SF	3.50	183,498	3.50	183,498	366,996
TOTAL - DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING			**1,268,758**		**1,093,124**	**2,361,882**
TOTAL - DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING	**SAY**		**$1,269,000**		**$1,093,000**	**$2,362,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 26 - ELECTRICAL						
DEMOLITION						
Disconnect and remove existing electrical equipment, fixtures, devices and associated conduit and cabling / wiring	30,085 SF	$0.05	$1,504	$0.12	$3,610	$5,114
Temporary power and light during construction including maintenance and removal	30,085 SF	0.15	4,513	0.25	7,521	12,034
DISTRIBUTION						
Provide power distribution panelboards throughout basement, 1st, 2nd and 3rd floors including feeders back to existing switchgear in basement	52,428 SF	2.10	110,099	1.80	94,370	204,469
Penthouse motor control center including feeder to existing switchgear in basement	1 ALLOW	50,000.00	50,000	12,500.00	12,500	62,500
EMERGENCY DISTRIBUTION						
Modify existing emergency distribution equipment to connect new loads serving Wilber Hall including circuit breakers and terminations	1 ALLOW	750.00	750	1,500.00	1,500	2,250
BRANCH CIRCUITS						
Junction boxes, EMT conduit and branch circuit wiring	30,085 SF	0.45	13,538	1.30	39,111	52,649
LIGHTING						
LED lighting including decorative fixtures in common areas, daylight harvesting controls, sensor controls, manual switching, conduit and branch circuit wiring	30,085 SF	6.10	183,519	3.80	114,323	297,842
Exterior building and canopy mounted LED fixtures including building penetrations, conduit and wire	1 ALLOW	5,000.00	5,000	2,000.00	2,000	7,000
DEVICES						
Receptacle outlets including back boxes, supports and conduit to above ceiling - provide ground fault protection as required	30,085 SF	0.30	9,026	0.95	28,581	37,607
EQUIPMENT CONNECTIONS						
Electrical connections to mechanical equipment including means of disconnect and feeders to source panel	30,085 SF	0.80	24,068	0.90	27,077	51,145
LIGHTNING PROTECTION						
Building lightning protection system including air terminals, main conductor cable, down conductors, ground rods and certification	1 ALLOW	17,500.00	17,500	12,500.00	12,500	30,000

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
COMMUNICATIONS						
Communications outlets (data, tele, WAP, CATV) including cabling back to new data closets, cable tray throughout corridors, jacks, terminations and testing	30,085 SF	1.15	34,598	1.40	42,119	76,717
FIRE ALARM						
Fully addressable initiation and notification devices throughout renovated space including conduit, cabling, tie-in and programming at existing basement control panel	30,085 SF	1.70	51,145	2.00	60,170	111,315
ACCESS CONTROL						
Building wide access control system including head-end equipment, power supplies, card / proximity readers at all interior and exterior doors and cabling	30,085 SF	0.95	28,581	0.50	15,043	43,624
VIDEO SURVEILLANCE						
CCTV video surveillance providing full building coverage and including cameras, recording and monitoring equipment and cabling	30,085 SF	1.15	34,598	0.45	13,538	48,136
TOTAL - DIVISION 26 - ELECTRICAL			**568,439**		**473,963**	**1,042,402**
TOTAL - DIVISION 26 - ELECTRICAL	**SAY**		**$568,000**		**$474,000**	**$1,042,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #1 - STRUCTURAL FLOOR OPENING						
DEDUCT						
Suspended metal grid and lay-in acoustic tile ceilings	247 SF	($3.85)	($951)	($1.41)	($348)	($1,299)
ADD						
Saw cut and remove concrete slab on deck and structural steel including perimeter framing (247 sf)	1 EA	6,000.00	6,000	10,000.00	10,000	16,000
Stainless steel and glass post mounted railing	66 LF	300.00	19,800	57.00	3,762	23,562
Metal stud and gypsum wallboard soffits and breaks including paint	231 SF	5.00	1,155	10.00	2,310	3,465
SUB-TOTAL			$26,004		$15,724	$41,728
GENERAL CONDITIONS	8%					$3,338
SUB-TOTAL						$45,066
OVERHEAD AND PROFIT	6%					$2,704
SUB-TOTAL						$47,770
DESIGN CONTINGENCY	15%					$7,166
SUB-TOTAL						$54,936
ESCALATION (MID-POINT WINTER 2017)	5.5%					$3,021
TOTAL - ALTERNATE #1 - STRUCTURAL FLOOR OPENING						**$57,957**
TOTAL - ALTERNATE #1 - STRUCTURAL FLOOR OPENING SAY					**ADD**	**$58,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #2A - ADDITIONAL WINDOW OPENINGS (6 EACH)						
ADD						
Saw cut and remove portion of asbestos containing exterior walls for new openings including new lintels, patch and disposal	415 SF	$15.50	$6,433	$57.00	$23,655	$30,088
Temporary protection	1 ALLOW	650.00	650	650.00	650	1,300
Aluminum and glass windows	415 SF	35.00	14,525	12.00	4,980	19,505
Window sills	56 LF	45.00	2,520	7.30	409	2,929
Window shades	415 SF	12.00	4,980	2.00	830	5,810
Extruded aluminum sunshades	27 LF	90.00	2,430	28.50	770	3,200
SUB-TOTAL			$31,538		$31,294	$62,832
GENERAL CONDITIONS	8%					$5,027
SUB-TOTAL						$67,859
OVERHEAD AND PROFIT	6%					$4,072
SUB-TOTAL						$71,931
DESIGN CONTINGENCY	15%					$10,790
SUB-TOTAL						$82,721
ESCALATION (MID-POINT WINTER 2017)	5.5%					$4,550
TOTAL - ALTERNATE #2A - ADDITIONAL WINDOW OPENINGS (6 EACH)						**$87,271**
TOTAL - ALTERNATE #2A - ADDITIONAL WINDOW OPENINGS (6 EACH)	**SAY**				**ADD**	**$87,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #2B - ADDITIONAL WINDOW OPENINGS (18 EACH)						
ADD						
Saw cut and remove portion of asbestos containing exterior walls for new openings including new lintels, patch and disposal	1,245 SF	$15.50	$19,298	$57.00	$70,965	$90,263
Temporary protection	1 ALLOW	2,000.00	2,000	2,000.00	2,000	4,000
Aluminum and glass windows	1,245 SF	35.00	43,575	12.00	14,940	58,515
Window sills	169 LF	45.00	7,605	7.30	1,234	8,839
Window shades	1,245 SF	12.00	14,940	2.00	2,490	17,430
Extruded aluminum sunshades	80 LF	90.00	7,200	28.50	2,280	9,480
SUB-TOTAL			$94,618		$93,909	$188,527
GENERAL CONDITIONS	8%					$15,082
SUB-TOTAL						$203,609
OVERHEAD AND PROFIT	6%					$12,217
SUB-TOTAL						$215,826
DESIGN CONTINGENCY	15%					$32,374
SUB-TOTAL						$248,200
ESCALATION (MID-POINT WINTER 2017)	5.5%					$13,651
TOTAL - ALTERNATE #2B - ADDITIONAL WINDOW OPENINGS (18 EACH)						**$261,851**
TOTAL - ALTERNATE #2B - ADDITIONAL WINDOW OPENINGS (18 EACH) SAY					**ADD**	**$262,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #2C - ADDITIONAL WINDOW OPENINGS (23 EACH)						
ADD						
Saw cut and remove portion of asbestos containing exterior walls for new openings including new lintels, patch and disposal	1,591 SF	$15.50	$24,661	$57.00	$90,687	$115,348
Temporary protection	1 ALLOW	2,500.00	2,500	2,500.00	2,500	5,000
Aluminum and glass windows	1,591 SF	35.00	55,685	12.00	19,092	74,777
Window sills	215 LF	45.00	9,675	7.30	1,570	11,245
Window shades	1,591 SF	12.00	19,092	2.00	3,182	22,274
Extruded aluminum sunshades	103 LF	90.00	9,270	28.50	2,936	12,206
SUB-TOTAL			$120,883		$119,967	$240,850
GENERAL CONDITIONS	8%					$19,268
SUB-TOTAL						$260,118
OVERHEAD AND PROFIT	6%					$15,607
SUB-TOTAL						$275,725
DESIGN CONTINGENCY	15%					$41,359
SUB-TOTAL						$317,084
ESCALATION (MID-POINT WINTER 2017)	5.5%					$17,440
TOTAL - ALTERNATE #2C - ADDITIONAL WINDOW OPENINGS (23 EACH)						**$334,524**
TOTAL - ALTERNATE #2C - ADDITIONAL WINDOW OPENINGS (23 EACH) SAY					**ADD**	**$335,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #3 - BASEMENT RENOVATION						
DIVISION 2 - ASBESTOS ABATEMENT						
Remove suspended metal grid and lay-in acoustic tile ceilings below asbestos containing spray fireproofing and dispose - Phase III	10,053 SF	$2.50	$25,133	$9.35	$93,996	$119,129
Remove asbestos containing spray fireproofing and dispose - Phase III	10,053 SF	4.00	40,212	10.00	100,530	140,742
Miscellaneous asbestos containing pipe insulation and mudded fittings	1 ALLOW	2,000.00	2,000	5,000.00	5,000	7,000
Temporary partitions / protection	1 ALLOW	2,500.00	2,500	2,500.00	2,500	5,000
Air monitoring	LS					BY OWNER
DIVISION 2 - DEMOLITION						
FLOORS						
Remove floor finishes - Phase III	8,859 SF	$0.25	$2,215	$1.35	$11,960	$14,175
WALLS						
Remove doors, frames and hardware - Single	21 EA	0.00	0	85.50	1,796	1,796
- Pair	5 PR	0.00	0	114.00	570	570
Remove partition walls	8,566 SF	0.15	1,285	2.75	23,557	24,842
FIXTURES / CASEWORK						
Remove toilet partitions	9 EA	0.00	0	57.00	513	513
Remove toilet room accessories (per room allowance) - Group Use	3 EA	0.00	0	285.00	855	855
GENERAL						
Miscellaneous removals	1 ALLOW	2,500.00	2,500	5,000.00	5,000	7,500
Temporary protection / partitions	1 ALLOW	750.00	750	750.00	750	1,500
Dispose of debris (per dumpster)	12 EA	600.00	7,200	456.00	5,472	12,672
DIVISION 6 - WOOD AND PLASTICS						
Wood blocking	1 ALLOW	$750.00	$750	$2,250.00	$2,250	$3,000
Built-in casework (allowance) - Vanities	19 LF	300.00	5,700	57.00	1,083	6,783
Miscellaneous casework and trim	1 ALLOW	5,000.00	5,000	2,500.00	2,500	7,500

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 8 - DOORS AND WINDOWS						
Hollow metal frames, flush solid core wood doors, hardware and finish						
- Single	16 EA	900.00	14,400	342.00	5,472	19,872
- Pair	1 PR	1,800.00	1,800	570.00	570	2,370
Borrowed lites	1 ALLOW	10,000.00	10,000	2,500.00	2,500	12,500
DIVISION 9 - FINISHES						
GYPSUM WALLBOARD ASSEMBLIES						
Metal stud and gypsum wallboard partitions						
- 2-sided	5,545 SF	$2.75	$15,249	$5.25	$29,111	$44,360
- 1-sided	1,163 SF	1.85	2,152	3.25	3,780	5,932
- Furring	5,229 SF	1.25	6,536	2.75	14,380	20,916
Metal stud and gypsum wallboard soffits and breaks including paint (based on 10% of total ceilings)	945 SF	5.00	4,725	10.00	9,450	14,175
FLOORS						
Prep floors	8,534 SF	0.06	512	0.57	4,864	5,376
Ceramic tile	788 SF	4.65	3,664	5.84	4,602	8,266
Carpet tile	352 SY	29.00	10,208	5.70	2,006	12,214
Vinyl composition tile	4,578 SF	1.25	5,723	1.03	4,715	10,438
Ceramic base	179 LF	4.50	806	5.70	1,020	1,826
Terrazzo base	244 LF	11.00	2,684	10.24	2,499	5,183
Rubber base	1,335 LF	0.84	1,121	1.46	1,949	3,070
WALLS						
Ceramic wall tile	1,611 SF	4.10	6,605	4.82	7,765	14,370
Acoustic wall panels (allowance)	150 SF	13.20	1,980	3.47	521	2,501
Paint walls	15,969 SF	0.45	7,186	0.45	7,186	14,372
CEILINGS						
Suspended metal grid and lay-in acoustic tile ceilings	8,506 SF	3.85	32,748	1.41	11,993	44,741

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
DIVISION 10 - SPECIALTIES						
Toilet partitions	7 EA	$1,000.00	$7,000	$200.00	$1,400	$8,400
Toilet Room accessories (per room allowance) - Group use	2 EA	1,200.00	2,400	342.00	684	3,084
Marker boards	1 ALLOW	6,500.00	6,500	1,500.00	1,500	8,000
Tackboards	1 ALLOW	4,000.00	4,000	1,000.00	1,000	5,000
Projector screens	1 ALLOW	6,000.00	6,000	570.00	570	6,570
Miscellaneous specialties	1 ALLOW	2,500.00	2,500	2,500.00	2,500	5,000
DIVISION 22 - PLUMBING						
Remove and replace existing basement restroom fixtures and piping (per annotated dwg. AD-100) with 5 water closets, 2 urinals, 4 lavatories, piping and related plumbing work - per fixture	11 EA	1,500.00	16,500	2,000.00	22,000	38,500
Add floor drains and piping	1 LS	2,000.00	2,000	5,000.00	5,000	7,000
DIVISION 26 - ELECTRICAL						
DEMOLITION						
Disconnect and remove existing electrical equipment, fixtures, devices and associated conduit and cabling / wiring	11,014 SF	$0.05	$551	$0.12	$1,322	$1,873
Temporary power and light during construction including maintenance and removal	11,014 SF	0.15	1,652	0.25	2,754	4,406
BRANCH CIRCUITS						
Junction boxes, EMT conduit and branch circuit wiring	11,014 SF	0.45	4,956	1.30	14,318	19,274
LIGHTING						
LED lighting including decorative fixtures in common areas, daylight harvesting controls, sensor controls, manual switching, conduit and branch circuit wiring	11,014 SF	5.30	58,374	3.00	33,042	91,416
DEVICES						
Receptacle outlets including back boxes, supports and conduit to above ceiling - provide ground fault protection as required	11,014 SF	0.30	3,304	0.95	10,463	13,767
EQUIPMENT CONNECTIONS						
Electrical connections to mechanical equipment including means of disconnect and feeders to source panel	11,014 SF	0.80	8,811	0.90	9,913	18,724
COMMUNICATIONS						
Communications outlets (data, tele, WAP, CATV) including cabling back to new data closets, cable tray throughout corridors, jacks, terminations and testing	11,014 SF	0.70	7,710	1.20	13,217	20,927
FIRE ALARM						
Access control devices, power supplies and cabling	11,014 SF	1.70	18,724	2.00	22,028	40,752
ACCESS CONTROL						
Building wide access control system including						

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
head-end equipment, power supplies, card / proximity readers at all interior and exterior doors and cabling	11,014 SF	0.60	6,608	0.50	5,507	12,115
VIDEO SURVEILLANCE						
CCTV video surveillance providing full building coverage and including cameras and cabling	11,014 SF	0.90	9,913	0.45	4,956	14,869
SUB-TOTAL			$390,847		$524,889	$915,736
GENERAL CONDITIONS	8%					$73,259
SUB-TOTAL						$988,995
OVERHEAD AND PROFIT	6%					$59,340
SUB-TOTAL						$1,048,335
DESIGN CONTINGENCY	15%					$157,250
SUB-TOTAL						$1,205,585
ESCALATION (MID-POINT WINTER 2017)	5.5%					$66,307
TOTAL - ALTERNATE #3 - BASEMENT RENOVATION						**$1,271,892**
TOTAL - ALTERNATE #3 - BASEMENT RENOVATION SAY		**11,014 GSF /**	**$115.49**		**ADD**	**$1,272,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #4 - PERIMETER WALL CAVITY REPLACEMENT						
ADD						
Remove single wythe of perimeter wall CMU	13,756 SF	$0.26	$3,577	$3.59	$49,384	$52,961
Dispose of debris (per dumpster)	12 EA	600.00	7,200	456.00	5,472	12,672
Metal stud and gypsum wallboard partitions - 1-sided	13,756 SF	1.85	25,449	3.25	44,707	70,156
SUB-TOTAL			$36,226		$99,563	$135,789
GENERAL CONDITIONS	8%					$10,863
SUB-TOTAL						$146,652
OVERHEAD AND PROFIT	6%					$8,799
SUB-TOTAL						$155,451
DESIGN CONTINGENCY	15%					$23,318
SUB-TOTAL						$178,769
ESCALATION (MID-POINT WINTER 2017)	5.5%					$9,832
TOTAL - ALTERNATE #4 - PERIMETER WALL CAVITY REPLACEMENT						**$188,601**
TOTAL - ALTERNATE #4 - PERIMETER WALL CAVITY REPLACEMENT SAY					**ADD**	**$189,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #5 - SPRAY FIREPROOFING - BASEMENT						
ADD						
One-hour spray fireproofing at metal deck, columns and beams	11,944 SF	$1.50	$17,916	$2.97	$35,474	$53,390
SUB-TOTAL			$17,916		$35,474	$53,390
GENERAL CONDITIONS	8%					$4,271
SUB-TOTAL						$57,661
OVERHEAD AND PROFIT	6%					$3,460
SUB-TOTAL						$61,121
DESIGN CONTINGENCY	15%					$9,168
SUB-TOTAL						$70,289
ESCALATION (MID-POINT WINTER 2017)	5.5%					$3,866
TOTAL - ALTERNATE #5 - SPRAY FIREPROOFING - BASEMENT						**$74,155**
TOTAL - ALTERNATE #5 - SPRAY FIREPROOFING - BASEMENT	**SAY**				**ADD**	**$74,000**

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #6 - SPRAY FIREPROOFING - 2ND FLOOR						
ADD						
One-hour spray fireproofing at metal deck, columns and beams	11,944 SF	$1.50	$17,916	$2.97	$35,474	$53,390
SUB-TOTAL			$17,916		$35,474	$53,390
GENERAL CONDITIONS	8%					$4,271
SUB-TOTAL						$57,661
OVERHEAD AND PROFIT	6%					$3,460
SUB-TOTAL						$61,121
DESIGN CONTINGENCY	15%					$9,168
SUB-TOTAL						$70,289
ESCALATION (MID-POINT WINTER 2017)	5.5%					$3,866
TOTAL - ALTERNATE #6 - SPRAY FIREPROOFING - 2ND FLOOR						**$74,155**
TOTAL - ALTERNATE #6 - SPRAY FIREPROOFING - 2ND FLOOR	**SAY**				**ADD**	**$74,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #7 - SPRAY FIREPROOFING - 3RD FLOOR						
ADD						
One-hour spray fireproofing at metal deck, columns and beams	11,944 SF	$1.50	$17,916	$2.97	$35,474	$53,390
SUB-TOTAL			$17,916		$35,474	$53,390
GENERAL CONDITIONS	8%					$4,271
SUB-TOTAL						$57,661
OVERHEAD AND PROFIT	6%					$3,460
SUB-TOTAL						$61,121
DESIGN CONTINGENCY	15%					$9,168
SUB-TOTAL						$70,289
ESCALATION (MID-POINT WINTER 2017)	5.5%					$3,866
TOTAL - ALTERNATE #7 - SPRAY FIREPROOFING - 3RD FLOOR						**$74,155**
TOTAL - ALTERNATE #7 - SPRAY FIREPROOFING - 3RD FLOOR SAY					**ADD**	**$74,000**

DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
ALTERNATE #8 - ALTERNATE HVAC SYSTEM						
DEDUCT						
Equipment including DOAS hvac air handling units (2 @ 9000 cfm each), DOAS supply air VAV boxes, 4-pipe fan coil units, finned tube radiation, steam to hot water convertor, steam control valve station, hot water and chilled water pumps, hot and chilled water air separators and thermal expansion tanks, brazed plate heat exchanger to serve glycol heating hot water coil for DOAS AHU preheat, including dedicated glycol pump, air separator, thermal expansion tank, prefabricated supply and return piped valve assemblies, roof exhaust fan for restrooms and janitor closes, btuh meters for hot and chilled water, cabinet unit heaters, suspended unit heaters, other miscellaneous hvac equipment, etc.	52,428 SF	($12.50)	($655,350)	($2.00)	($104,856)	($760,206)
Insulated piping systems including steam and condensate, hot and chilled water, glycol hot water for DOAS AHU preheat, condensate drain, hangers, valves, specialties, etc.	52,428 SF	-4.00	-209,712	-6.00	-314,568	-524,280
Galvanized steel ductwork including duct hangers, fittings, duct insulation (for DOAS supply air only), air inlets and outlets, fire dampers, etc.	52,428 SF	-4.00	-209,712	-8.00	-419,424	-629,136
Testing, adjusting and balancing for air and water systems	52,428 SF	0.00	0	-0.75	-39,321	-39,321
ADD						
Equipment including DOAS hvac air handling units (2 @ 9000 cfm each), with on-board water-to-air heat pump units, DOAS supply air VAV boxes, penthouse cooling tower, heat pump loop pumps, water-to-water heat pumps, water-to-air heat pumps, finned tube radiation, hot water pumps, hot water air separator and thermal expansion tank, brazed plate heat exchanger to serve glycol heating hot water coil for DOAS AHU preheat, including dedicated glycol pump, air separator, thermal expansion tank, prefabricated supply and return piped valve assemblies, roof exhaust fan for restrooms and janitor closes, btuh meters for hot and chilled water, cabinet unit heaters, suspended unit heaters, other miscellaneous hvac equipment, etc.	52,428 SF	20.00	1,048,560	3.00	157,284	1,205,844

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DESCRIPTION	QUANTITY	MATERIAL UNIT PRICE	MATERIAL TOTAL	LABOR UNIT PRICE	LABOR TOTAL	TOTAL
Insulated piping systems including heat pump loop, hot water, glycol hot water for DOAS AHU preheat, condensate drain, hangers, valves, specialties, etc.	52,428 SF	3.00	157,284	5.00	262,140	419,424
Galvanized steel ductwork including duct hangers, fittings, duct insulation (for DOAS supply air only), air inlets and outlets, fire dampers, etc.	52,428 SF	4.00	209,712	8.00	419,424	629,136
Testing, adjusting and balancing for air and water systems	52,428 SF	0.00	0	0.70	36,700	36,700
SUB-TOTAL			$340,782		($2,621)	$338,161
GENERAL CONDITIONS	8%					$27,053
SUB-TOTAL						$365,214
OVERHEAD AND PROFIT	6%					$21,913
SUB-TOTAL						$387,127
DESIGN CONTINGENCY	15%					$58,069
SUB-TOTAL						$445,196
ESCALATION (MID-POINT WINTER 2017)	5.5%					$24,486
TOTAL - ALTERNATE #8 - ALTERNATE HVAC SYSTEM						**$469,682**
TOTAL - ALTERNATE #8 - ALTERNATE HVAC SYSTEM SAY					**ADD**	**$470,000**

Appendix B

Chiang | O'Brien
ARCHITECTS

PROJECT KICK-OFF MEETING
Wilber Hall, School of Education Phase III

Meeting Date: 13 November 2015 Location: 225 Shineman Center, SUNY Oswego

Attendees:

SUNY Oswego	Michael Lotito	Michael.lotito@oswego.edu
	Mark Cole	Mark.cole@oswego.edu
	Mark Fuller	Mark.fuller@oswego.edu
	Allen Bradberry	Allen.bradberry@oswego.edu
	Pamela Michel	Pamela.michel@oswego.edu
	Lawrence Gettino	Lawrence.gettino@oswego.edu
Chiang O'Brien Architects	Grace Chiang	grace@chiangobrien.com
	Andrew Rappaport	andrew@chiangobrien.com
	Timothy Stevens	timothy@chiangobrien.com

Notes from Discussion:

1. Introductions
2. Housekeeping Items
    a. Mark Cole indicated that Pay Applications be mailed from COB to Cathy Johnston and she will forward to appropriate personnel
    b. Contract – COB signed, SUNY needs to sign. Post meeting: Contract has been fully executed.
3. Project Goals / Visions
    a. Grace began the meeting by asking SUNY Oswego staff their vision and goals for the project.
    b. SUNY Oswego staff began with brief project overview
        i. $7.5M project
        ii. Anticipated construction completion in time for the Fall semester of 2017
        iii. Phase I – Wilber Hall Addition
        iv. Phase II – Park Hall
        v. Phase III – will be the last phase in the consolidation of the School of Education
            1. Abatement will be performed prior to renovation project, Abatement project bids due December 1st with work anticipated to begin in January and complete by mid-Spring.
            2. Abatement will be undertaken primarily on either side of existing corridor walls (corridor walls remaining in place).
            3. Additional testing and abatement is anticipated to be required for concealed spaces, such as the exterior walls and shafts in the first floor
            4. Design team to look into potential schemes utilizing the existing corridor walls but if negatively impacting the ability to achieve optimal layouts they may be removed at least in part. Will need to confirm shaft locations, etc.
            5. Existing 1st floor should be maintained as much as possible since it was recently renovated (2006-2007).

6. Existing 1st floor work extent might be limited to "facelift" type items such as paint, wall specialties, etc.
7. Majority of building will be open for fieldwork up until the beginning of abatement in January. 1st floor will be occupied throughout Spring 2016 and then vacated by mid-summer.
8. "City School" program (15 students + 3 teachers) occupies a portion of the basement level and meets in the morning. Afternoons would be the best time to do fieldwork in these spaces.

c. SUNY Oswego emphasized various elements of the program and considerations for design:
   i. School of Education has 2 primary groups planned to occupy the renovated space: Counseling and Psychological Services (CPS) and Curriculum and Instruction Services (CIS)
   ii. CPS has approx. 3 programs and CIS has approx. 25 programs and will hold the majority of the space within the completed project area.
   iii. Maximize teaching and office space
   iv. Typical classroom size anticipated around 25 students: should be "Classrooms of the Future." SUNY Oswego will share information about their thoughts on this.
   v. Lecture setup is generally not the pedagogy.
   vi. Flexibility of space is very important
      1. Many outside groups come in to use the spaces
      2. Many adjunct faculty need space – they primarily teach from 4:30-7:30 PM, currently using classrooms for office hours
   vii. Teaching spaces
      1. Wireless AV technologies.
      2. Many international students enrolled in programs will go back to their home countries to teach, so creating a thoughtful learning environment addressing their needs is also important
      3. Spaces need to facilitate preparing candidates from many diverse backgrounds so space adaptability is important
   viii. Incorporate informal meeting spaces throughout the building
      1. Promotes interactive learning environments, impromptu gatherings and expands venues and possibilities for learning
      2. Interactions: student-to-student, faculty-to-student, faculty-to-faculty
   ix. Health Promotion and Wellness (HPW)
      1. Teaching lab required – teaching lab to learn instruction in the use of fitness equipment (must house fitness equipment and storage space)

d. SUNY Oswego does have campus standards – will forward to COB
e. Most standards have at least three manufacturer, but at few include sole source items:
   i. Fire alarm – Simplex
   ii. HVAC – Trane or Carrier
   iii. Door hardware
   iv. Card Access – Millenium System (there are multiple vendors/servicers for this system)
   v. AV / Networking / IT Consultant – Tyrone, involved later in project
f. School of Education has a user group committee which is representative of all the programs and can facilitate decision making on behalf of all the programs
g. LEED Gold
   i. Window replacement?
   ii. Roof replacement?

iii. COB recommended registering under 2009 – SUNY Oswego agreed, COB to begin registration process
iv. SUNY Oswego will engage a commissioning agent
v. Investigate LEED project boundaries and how this may affect any work in back corridor outside of Tech lab spaces (may not be able to include in current project as it could negatively affect LEED – perhaps break out into separate project)
vi. Prior LEED boundaries will need to be carefully coordinated
vii. LEED charrette – will schedule to coincide with another design meeting

4. Schedule
    a. Grace explained current schedule, as currently planned, is very aggressive.
    b. Time was shaved from College Review periods as well as advertising and bidding periods to maintain a beginning of Fall 2017 semester construction completion date
    c. Discussed possibility of reducing college review period by shifting the DD review date in order to provide a more complete package (60% complete). (the more complete the package the shorter review the time and fewer questions are likely to arise)
    d. Discussed the importance of leaving time in the programming/schematic design phase as this is the most critical time to get all the goals/spaces determined to insure that the project is based on sound decisions and design
    e. Discussed importance of ordering long lead items and equipment immediately at the onset (or earlier) of construction due to the minimal demo period when equipment is normally ordered (spaces will be ready for equipment sooner due to minimal demo)
5. Next Steps
    a. Schedule date for first programming meetings tentatively planned for Nov. 20th)
        i. Ideally this would involve the SOE user group in the morning with more specific groups as necessary in the afternoon.
        ii. Adequate programming of the building would be at minimum a full day of meetings with appropriate parties (taking into account programming documents have already been created and reviewed internally)
    b. December 4th – last day of classes
    c. December 13th – mid January – faculty will be around and available for meetings.
    d. SUNY to forward current programming document to COB for review and to help develop questions and more focused discussions at upcoming programming meetings.

Report prepared by,

Chiang | O'Brien ARCHITECTS

Timothy Stevens, AIA, NCARB, LEED AP
Architect

cc: All attendees, David Green, David Meyer

Chiang | O'Brien
ARCHITECTS

Meeting Report

Wilber Hall Renovations, School of Education Phase III
State University of New York at Oswego

Meeting Date: 20 November 2015 Location: 303 Park Hall

Attendees:

SUNY Oswego School of Education	Pan Michel Deb Trionfero	pamela.michel@oswego.edu linda.paris@oswego.edu
Curriculum & Instruction	Marcia Burrell Bobbi Schnorr Barb Beyerbach R. Deborah Davis	marcia.burrell@oswego.edu roberta.schnorr@oswego.edu barbara.beyerbach@oswego.edu rdeborah.davis@oswego.edu
Counseling & Psychological Services	Mike LeBlanc	michael.leblanc@oswego.edu
SUNY Oswego Facilities Services	Mitch Fields Mike Lotito Linda Paris	mitch.fields@oswego.edu michael.lotito@oswego.edu linda.paris@oswego.edu
Chiang O'Brien Architects	Grace Chiang Andrew Rappaport	grace@chiangobrien.com andrew@chiangobrien.com

Discussion:

VISION and GOALS

1. Would like space to be filled with natural light to the greatest extent possible. If at all possible would like to have additional windows added to the building.
2. Create a sense of community, looking forward to being consolidated with the rest of the SOE now in Park.
3. Informal and formal integrated collaborative spaces are really important for interaction between faculty and students in every combination. Collaborative spaces also provide a place for commuter students between classes.
    a. On every floor, associated with offices, associated with classrooms and dispersed around the building.
    b. Provides for many learning opportunities outside the classroom.
    c. Do not necessarily need or want to be enclosed spaces
    d. Provide white boards, smartboards, glass marker writing surfaces, painted whiteboard areas on walls, etc. throughout the building, not just in designated collaboration spaces
    e. Both C&I and CPS often work with partners outside of the institution. Having multiple choices and types of meeting spaces is highly desirable: office, conference rooms and informal spaces.
4. Envision spaces that reflect nature, have natural features: this might be in the form of color selection or other finishes. Views to the exterior would help reinforce. Would prefer this feel rather than a very high tech "cold" feeling.
5. Need a quiet contemplative space.

6. Technology rich spaces that are flexible.
7. Spaces need to allow and encourage students to move: flexible and diverse seating choices for study, lounging and moving. Pay particular attention to ergonomics. The concept of movement is also being taught in the curriculum and taken into the field.
8. Examples of spaces that are perceived as good examples of collaborative/breakout space:
    a. Lounge space in corridor on south side, first floor of Wilber. Also like the small enclosed breakout spaces on either side that have some technology, and the adjacency to classroom spaces makes it useful as not only as casual interaction space but also as breakout space for the classrooms.
    b. Park Wilber connector atrium

9. Need to make provisions for adjuncts. They need a secure place for belongings and materials, a place to sit and use a computer or desk. Space could be flex/shared space. Primary need is in the later part of the day, most teach in the late afternoon or early evening. SOE will think about future projection head count for number of adjuncts.
10. Need good mechanical and electrical systems: fresh air, cooling, heat and comfort. It was noted since the project has a goal of LEED Gold, the building envelope will be improved with insulation, upgraded windows, etc., and that significant retrofit work will be completed on the Mechanical, Electrical, Plumbing (MEP) systems.
11. Building needs a Kitchenette space with microwave, sink, refrigerator, etc. and should be near a breakout space (see additional discussion below).
12. Need sufficient acoustical separations between spaces. For example the separation between the existing first floor classrooms and the adjacent offices is currently very insufficient.
13. Advisement
    a. Needs to be open and welcoming
    b. A hub for both undergraduates and graduate studies

14. Some classrooms have specialized needs
    a. Science and Art Education methods both need wet areas
    b. Language and Linguistics use audio samplings and recordings. Needs particularly good sound separation from adjacent spaces.

15. $1 million grant will go toward creation of state-of-the-art classrooms, it is anticipated that there will be one high tech classroom on each of First, Second and Third floors. See additional details below.
16. Teaching for Special Education programs requires some specialized and specific equipment that will require some storage space. However, it was noted that much of the formerly required equipment is quickly being replaced with technology solutions.
17. Alternative/BOCES school currently housed in the basement, hope to continue to house in the building.
18. SOE also shared a recently created document "C&I Space and Design Priorities for Wilber Hall Renovation" which contains history and background about the program, and details about requirements and goals for specific spaces in the program.
19. Consider creating a vertical opening between floors, say between Basement and First Floor and another between Second and Third Floors. The idea and goal is to allow the infiltration of natural light. The openings in the floor may also help to create more visual connection between occupants of the two floors.
20. Field Placement program offices on the first floor are fine as they exist, no renovations anticipated to be required.

PROGRAMMING
Used as a stating point the spreadsheet recording of the program dated August 30, 2013, prepared by Bergmann Associates

Shared Spaces:

21. Classrooms, three tiers:
    a. Highly specialized, high tech, supported by $1 million grant. Some of the ideas already being considered for inclusion in these classrooms are:
        i. Multiple projectors to allow students to breakup into groups around the perimeter of the room, each with access to an A/V setup.
        ii. Technology that allows for the projection of multiple devices being utilized and switching between devices
        iii. Capture video that can be shared real time
        iv. Video taping for assessment
        v. Multiple viewing stations
        vi. Streaming capabilities
        vii. Skyping or equivalent to allow visitor presentation from offsite, or offsite participation by individuals or groups off site.
        viii. Video conferencing
        ix. Connection to Metro Center
        x. All needs to be high quality and be supported with high quality equipment
    b. Moderately specialized
        i. Some computer stations at the perimeter of the room
        ii. Two data projectors
        iii. Interactive white board
        iv. Smart instructors station
    c. Basic
        i. Basic instructional technology
    d. It is anticipated that the two classrooms on the First Floor will stay where they are, however, finishes and lighting need to be replaced.
    e. All new classrooms in Wilber should be sized for 25-30 students and allow for flexibility in layout and furnishings.
    f. Need a minimum of six (6) classrooms in Wilber, if there is any additional space in the building, more classrooms are always desired.
    g. There should be classrooms located on every floor, intermixed with faculty offices.
    h. Would like to have nearby breakout spaces.
    i. Classrooms need adjacent storage
    j. Provide lockers, like those in the classrooms on the 2nd floor of Park, for adjunct personal items and materials storage.

22. HPW Exercise lab and adjacent storage space also needs to be accommodated in the building. It is envisioned that it would be located in the Basement. The remaining HPW program spaces are planned to stay in Park.
23. Envision keeping classroom and support space for the Alternative School program in the Basement.
24. Provide space for extended testing accommodations and oral proficiency inventory (OPI) testing.
    a. Needs to accommodate a student, a proctor, a computer.
    b. Needs acoustical separation from adjacent spaces.
    c. It is possible the monitoring could electronic and remotely monitored.

d. Not used all the time, so could serve other uses.

25. Conference Rooms
    a. Provide three (3), one on each floor excluding the basement
    b. Each should accommodate 15
    c. One should be adjacent to a kitchen, so that it could also be used as a staff/faculty lounge

26. General unassigned storage unaffiliated with a specific space is not a necessity
27. Stillness/Quiet space
    a. Accommodate 10-15
    b. Could also be used for other compatible purposes, such as a yoga class
    c. Intended as a space for retreat decompression, quiet, relaxation

28. Need a (dishwashing) sink on every floor, should not be the toilet rooms

PROGRAMMING
Counseling and Psychological Services (CPS) Spaces:

29. 11 full time faculty
30. Lucy Wing Resource Center- 400 SF
    a. Accommodate 3-4
    b. Test kits, other assessment equipment
    c. Computer assisted instruction area
        i. Work area for small group student work
        ii. 3 computers

31. Reception
    a. Staff person + 2 student workers
    b. Waiting space for 1-2

32. Workroom
    a. Should be adjacent to Reception
    b. Mail room for CPS faculty
    c. Equipment: copier, shredder
    d. Office supplies storage
    e. Work counter

33. CPS Lab
    a. 4-5 session rooms each to accommodate 3 people
    b. Play/Sound/Art Room- approximately 300 SF
    c. Observation room(s)
        i. Session Room and Play/Sound/Art rooms need observation either from an adjacent room with a one-way mirror or electronically monitored.
    d. Video Room for electronic monitoring and for storage of recordings.
    e. Server room as needed for monitoring and recording equipment
    f. Assessment room is not needed
    g. Seminar Room

PROGRAMMING
Curriculum and Instruction Spaces:

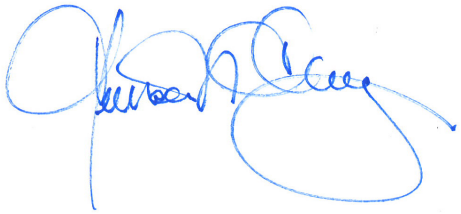
34. Provide for 36 faculty, maximum 40.
35. Chair office- existing space on the 1st floor currently does not have adequate acoustical separation from adjacent spaces. Should be accessed through Reception.
36. Director (of Graduate Studies). Should be accessed through Reception.
37. Reception
    a. Accommodate 3 secretaries plus 1-2 student workers
        i. One secretary serves graduate studies and should be located adjacent to Graduate Studies Office
    b. Waiting space for 3
38. Graduate Studies Space- used as a landing space for graduate students: for advisement from the Director, check-in, paperwork.
    a. Accommodate 5-6
    b. Tables with power
39. Workroom should be adjacent to and ideally accessed from Reception
    a. Mail for C&I faculty
    b. Copiers
    c. Shredders
    d. Storage
40. Advisement
    a. Two offices
        i. Director
        ii. Coordinator
    b. Graduate students Office
        i. Accommodate 5 computer stations
        ii. Graduate students fulfill reception function
    c. Files
    d. Counter space with fixed screens
    e. Pamphlets
    f. Office equipment: copiers and printers
41. Workroom should be adjacent to Reception
    a. C&I mail for faculty
    b. Work counter
    c. Paper and office supply storage
    d. Copier/printer
42. Project Smart
    a. Accommodate 3: secretary, part-time graduate student, work study student
    b. 8-12 faculty will be in and out of office
    c. Provide a high-end space since the staff are in the space 12 months of the year and are in their office space most of the day.

43. Literary Resource Room is no longer required.
44. Center for Urban Schools-may be staying in Park. This will be discussed internally by SOE before a final decision is made.
45. Make provisions for a copier on each floor
46. Make provisions for printer stations that the students can access on each floor
47. Provide two Adjunct offices with three (3) stations each, one for C&I and one for CPS.
48. Next steps:

    a. Andrew and Grace will revise the program spreadsheet and begin creating in Space Data Sheets, one for each type of space. These will be sent on to SUNY Oswego for SOE to review and further complete.
    b. Once a program has been finalized, the next step will be the development of alternative concept plans, assuming consensus is reached on the program in the next few weeks, anticipate first round of concepts to be ready for review meeting in early January.

Report prepared by,

Chiang | O'Brien ARCHITECTS



Grace Chiang, AIA, NCARB
Principal

cc: All attendees

Chiang | O'Brien
ARCHITECTS

Meeting Report

Wilber Hall Renovations, School of Education Phase III
State University of New York at Oswego

Meeting Date: 29 January 2016 Location: 303 Park Hall
Revised: 3 February 2016

Attendees:

SUNY Oswego School of Education	Pam Michel Deb Trionfero	pamela.michel@oswego.edu deborah.trionfero@oswego.edu
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Discussion:

1. Program review
   a. Briefly reviewed comments received regarding the program
   b. A. Fairbrother requested the kitchenette be enlarged to accommodate seating within the kitchenette space.
      i. Noted importance of faculty to have a space to socialize with their peers and to promote increased communication.
      ii. The decision was to incorporate a kitchenette adjacent to conference room so that the conference room could be used for associated seating as previously discussed.
   c. Bubble diagram of program and adjacency
      i. Organized by relationships:
         (1) Shared spaces include open common spaces and enclosed breakout rooms.
         (2) Preference was discussed to put C&I on adjacent floors (First and Second Floors) and CPS on the Third Floor.

ii. Faculty currently grouped by department but they could be integrated
    (1) This decision can be made when assigning offices, all offices are the same size, so this is flexible.
iii. Alternative School
    (1) Need to include office space for the Principal.
    (2) Discussion of program expansion to serve more students, this will be accommodated by increased hours, additional space is not required.
    (3) Need to confirm that 600 SF currently carried in the program is sufficient for the classroom space.
        (a) Facilities staff will review contract to confirm minimum space requirements.
    (4) Classroom needs to follow SED requirements and likely requires two exits.
iv. Classrooms
    (1) Additional classrooms wherever possible would be beneficial.
v. Discussed space allotment for CPS Lucy Wing Center. M. LeBlanc confirmed 480 SF should be adequate as proposed.

2. Design process overview

    a. Programming
        i. Program verification.
        ii. List of spaces and correct sizes.

    b. Concept/Schematic Design
        i. Consensus reached on a floor plan.
        ii. Begin talking about what the space looks and feels like.
            (1) Start to look at furniture layouts to confirm that spaces will meet the intended purpose.
        iii. Examine the exterior and what changes could be made.
        iv. Mechanical systems – evaluate and determine how would like to proceed.
        v. Preliminary cost estimate to help prioritize work.

    c. Design Development
        i. Complete space data sheets (have a good start on these already).
        ii. Furniture layouts completed to confirm viability of space allocations and arrangements.
        iii. Look and feel of the spaces developed including material selections, built-in millwork, exterior materials and details, etc.

    d. Construction Documents
        i. The design team develops drawings and specifications for contractors to bid and complete construction.

3. Schedule reviewed by M. Lotito

    a. Demo and abatement work on the upper floors will be starting in next few weeks.
    b. Hopes to wrap up design in early summer, bid the project over the summer.
    c. Construction begins in the Fall of 2016.

4. General plan discussion

    a. Building window diagram
        i. Currently some windows are on the first floor only.
        ii. Adding windows is a priority but may also be a budget issue.

    b. Opening between floors (indicated by "X" on the plans)
        (1) Not being used for circulation.
        (2) Propose limiting to 2 stories in order to contain costs since more than 2 stories triggers requirements to address atriums as defined by the building code.

(3) Opening could be between any two adjacent floors.
(4) Cannot be immediately adjacent to an exterior wall for structural reasons.
(5) Design team feels that even if the openings between floors are not created, the schemes are still viable in their approaches to organizing spaces, and maximizing openness and interactions.

c. Mail Room
   (1) Existing 100 square feet should be sufficient, existing room is for the building.

d. Lactation room
   i. Plan for approximately 100 square feet and include a sink.
   ii. M. Lotito recommended that it be located on the first floor adjacent to the existing women's toilet room.

e. Janitors Closet (JC)
   i. Space behind men's room on First Floor is the existing Janitor's Closet and JC Office – Keep as is.
   ii. Incorporate JC on all floors with larger space in basement for storage.
   iii. A service sink on each floor is required.

f. Common spaces have been shown in a variety of locations in the various schemes. In general more common space, than delineated in the program, has been included. The college indicated this is desirable.
g. Need to maintain access to Field Placement office as is.
h. Network closets
   i. Current network closet is on the second floor closet across from NW stairwell. Maintain if possible. In any case the following requirements are as follows:
      (1) Each room should be approximately 10' x 10' with room for two racks.
      (2) Two rooms will be required, each to serve two adjacent floors.
      (3) Maximum distance is 300 cable run limit.

i. Conference rooms
   i. M. Burrell requested that Conference Rooms be set up to double duty as seminar rooms.
      (1) Make sure that white boards, displays or projectors, WiFi, etc. is provided.
      (2) Modular furniture would allow more flexibility for different seating arrangements.

j. Toilet Rooms
   i. Different strategies possible and are shown in different Options.
   ii. Code allows for location of toilets with a maximum distance of one floor, so location of each gender on alternate floors is possible, but this would not be the College's preference.
   iii. Single person individual toilet rooms will accommodate all users. College likes this solution. Propose providing two single use toilets on both the second and third floors, maintaining the existing toilet rooms on the first floor, and providing the balance of the required fixtures in two gang toilet rooms in the Basement, one for each gender.
   iv. Current calculations suggest that code compliance will require a minimum of 8 Women's and 7 Men's water closet fixtures for the building.

k. Breakout areas
   i. Should be enclosed spaces, with at least some with technology.
   ii. Enclosed breakout areas are good to have adjacent to common's spaces.

l. Commons Spaces can be open to the corridor.
m. Computer rooms
   i. No dedicated computer labs are currently included in the program, college confirmed that this is fine.
   ii. Add printer stations in common spaces, design to mitigate noise and traffic.

iii. In Shineman Center, the printer station was added as an afterthought. It is extremely popular.

n. Technology
   i. Need maximize flexibility and ample power plugs throughout.
   ii. Need to that the equipment and technology in the classroom is training students on the next generation of technology, in order to prepare them for teaching.
      (1) Consider where future technology is heading, e.g. are touch screens going to replace LCD displays.

o. Classrooms
   i. Six is minimum, seven would be preferred.
   ii. Prefer at least one on each floor. Ideally two on Second Floor, one each on First and Third Floors and the balance in the Basement.

p. All options provide some amount of storage and mechanical space in the Basement.

5. Concept diagrams and layouts

a. Option 1
   i. Plan organization.
      (1) Floor penetration on south side (near location of existing commons area on First Floor).
      (2) 2 classrooms each on Basement, First and Second Floors with 2- story common space to the south.
      (3) No classroom on the Third Floor where the CPS department and faculty offices for both CPS and C&I are located.
   ii. First floor-largely maintains the existing floor plan layout.
      (1) Some reconfiguration around floor openings will be required to allow for circulation around
      (2) Advising on east side and Department Office on west.
      (3) Two Classrooms in the Center.
      (4) Lactation Room.
      (5) Conference Room with adjacent kitchenette.
      (6) Small commons space will open up the entrance to the floor.
   iii. Basement
      (1) Alternative School Classroom.
         (a) Could be larger if required.
      (2) Quiet Room in basement adjacent to Commons, all agreed, not an ideal location.
      (3) Intent is to draw students into the building (south side) and to create a usable, welcoming and large Commons space on the Basement level.
      (4) Discussed the possibility of switching the Exercise Lab with Commons space and be located below floor openings.
         (a) Would allow some natural light that could be shared with adjacent space if the Exercise Lab had large glass walls.
         (b) Potential acoustical concerns would need to be addressed.
   iv. Second Floor
      (1) 20 Faculty offices on perimeter which would have the potential for windows, other faculty offices on this floor are interior.
      (2) Two Classrooms.
   v. Third floor
      (1) Does not currently include a classroom.
      (2) CPS Counseling in center without windows (interior location was confirmed to be appropriate by M. LeBlanc).
      (3) Lucy Wing Resource Center is on the perimeter, but M. LeBlanc confirmed that it does not need to have windows.

(4) Conference Room.

b. Option 2
   i. Plan organization.
      (1) Many of the options extend the corridors to the exterior of the building to allow light to penetrate into the interior spaces and as a way-finding and orienting element. Option 2 achieves this at the end of almost every corridor.
         (a) Promoting health and wellness.
         (b) Seating at ends of corridors.
      (2) Classroom located on the west exterior wall, allowing for windows into the classroom, and to try and draw students through the building. After discussion, it was agreed that windows into the classroom is not a priority and in fact not always desirable due to conflicts with A/V.
   ii. First floor
      (1) Proposes major changes to the existing floor plan accommodating:
         (a) One Classroom.
         (b) Advisement Office.
         (c) Faculty Offices.
         (d) Conference Room with adjacent kitchenette.
         (e) Lactation Room.
         (f) It was noted that the Department office is on the second floor.
      (2) Two story space at the entrance point to the building.
         (a) Floor penetration between First Floor and Basement where a classroom currently exists.
   iii. Basement
      (1) Alternative School Classroom.
      (2) Three Moderately Specialized Classrooms.
      (3) Exercise Lab.
      (4) Commons space under two story space.
   iv. Second
      (1) Classroom on west side.
      (2) C& I Department office.
      (3) C&I faculty offices.
      (4) Conference Room.
      (5) Commons space under two story space.
   v. Third Floor
      (1) CPS with CPS Labs in center.
      (2) Conference Room.
      (3) CPS faculty.
      (4) CPS Department office.
      (5) Two story space at entrance to third floor.
         (a) Floor penetration between Third Floor and Second Floor.

c. Option 3
   i. Plan organization
      (1) Windows at ends of corridors for natural light.
      (2) All offices are on perimeter.
         (a) If could afford to add windows, potential for natural light.
         (b) Classrooms at interior in center.
      (3) No floor openings.
   ii. First floor-reorganized and mostly not maintaining existing floor plan layout.
      (1) Created an open Commons area at each of First, Second and Third Floors floor facing the entrance into the building from the northeast stair.

(2) Advisement Office.
(3) Faculty offices.
(4) Conference Room.
(5) It was noted that the Department office is on the second floor.

iii. Basement
(1) Alternative School Classroom.
(2) Three moderately Specialized Classrooms.
(3) Exercise Lab.

iv. Second floor
(1) C&I Department office.
(2) One Classroom in center.
(3) Conference Room with Kitchenette.
(4) Commons space.
(5) C&I faculty offices.

v. Third Floor
(1) CPS Faculty.
(2) CPS Department Office.
(3) Conference Room.
(4) CPS Labs on West side. It was confirmed that Labs do not need natural light and should not be given this priority.
(5) One Classroom.
(6) Commons space.

vi. General comments
(1) Like windows at ends of corridors for natural light.
(a) Promote health and wellness.
(b) Add seating at ends of corridors.

d. Option 4

i. Plan organization
(1) Visual openness with a Commons space that connects through the floor from north to the south exterior wall.
(2) Floor penetrations in this zone currently showing connecting Basement and First, and Second and Third.

ii. First Floor- maintains some of the existing, but needs some renovation to create floor penetration, circulation and Commons spaces around.
(1) One Classroom (From way finding perspective, classroom in same location on each floor may be beneficial.
(2) C&I Department Office.
(3) Advisement Office.
(4) C&I faculty offices.
(5) Conference Room with kitchenette.
(6) Lactation Room.
(7) Large Commons space.
(8) Advisement and classroom could swap locations as desired.

iii. Basement
(1) Alternative School.
(2) Three Classrooms.
(3) Exercise Lab.
(4) Large Commons space.

iv. Second Floor
(1) Large Commons space.
(2) Conference Room.

(3) CPS Department Office.
(4) CPS Labs at an interior location.
(5) One Classroom.

v. Third Floor
(1) One Classroom.
(2) Conference Room.
(3) C&I faculty offices.
(4) Large Commons space.

e. Option 5
i. General
(1) Very respectful of the existing first floor plan.
(2) Minimizes common spaces, but accommodates the largest program including two extra Classrooms for total of eight.
(3) No penetrations between floors.
(4) Basement and First floor Plans are similar and Second and Third Floor Plans are similar but less consistency between all four floors.

ii. First Floor- very respectful of the existing floor plan, utilizing most existing walls.
(1) Two Classrooms.
(2) C&I Department Office.
(3) Advisement Office.
(4) C&I faculty offices.
(5) Conference Room.
(6) Lactation Room.
(7) Large Commons space.
(8) Advisement and classroom could swap locations as desired.

iii. Basement
(1) Alternative School.
(2) Three Classrooms.
(3) Exercise Lab.
(4) Adjunct faculty office.

iv. Second Floor
(1) Conference Room with kitchenette.
(2) CPS Department Office.
(3) CPS Labs at an interior location.
(4) Two Classrooms.

v. Third Floor
(1) Faculty offices clustered around commons spaces.
(2) Two Classrooms.
(3) Conference Room.
(4) C&I faculty offices.

6. Discussion

a. B. Schnorr comments:
i. Really likes the openness of Option 4.
(1) Not just the opening between floors, but the open feel of the Option.
ii. Likes Option 3 second.

b. If only one floor opening is affordable, provide between the Basement and the First Floor.
c. Option 4
i. Openness and generous common space on the First Floor is appreciated.
ii. Basement.

(1) Flip Exercise Lab with classroom to get natural light into classroom as well as proximity to Commons space.

iii. Second and third could have a different layout and forgo the opening between floors.
(1) Faculty likes perimeter offices similar to Option 3.
(2) Chiang O'Brien will explore an option that merges the concepts of the two schemes as described above.

d. Perimeter
i. Faculty Offices on the perimeter is preferred.
ii. Classrooms should be interior as natural light is not a benefit.

e. A. Fairbrother comments:
i. Likes Option 3.
ii. Would prefer to have the two types of classrooms distributed throughout the building, rather than all of one type on one floor.

f. For Conference Rooms to function as Classrooms operational designations will need to be implemented.

g. Locate C&I primarily on First and Second Floors.
i. Department office and Advisement should be located on the First Floor.

h. CPS to be located on the Third Floor.
i. Take advantage of existing windows as much as possible for faculty. Provide additional windows as affordable.

i. Quiet space
i. Would prefer on second or third floor.
ii. Noted that the lake can be seen from third floor north side.
iii. Size – If could increase to 400 square feet, this would be preferred by some of the faculty.
(1) Discussed the idea of bringing groups, as large as 24, of students into the space. After some discussion it was agreed such large groups would likely not make sense.
(2) Currently use classrooms and rearrange furniture for stillness experiences.
(3) A. Fairbrother noted she would prefer keeping the space at 300 square feet and having the space for other priorities.
iv. Schools are creating peace centers as an alternative to time-out, a place for students to reconnect with themselves.
v. M. Lotito suggested that if the larger size cannot be accommodated, could always use another exercise space for the student experience.

j. Summary
i. Design team will refine Option 4 for Basement and First Floor and a more traditional layout for the upper floors.
ii. It would be preferable to maximize the number of classrooms.
(1) Even provision of an extra smaller classroom would be beneficial.
iii. Interior classrooms preferred, windows are not necessary or even preferred.
iv. Provide as many classrooms on upper floors as possible.
v. Advisement and C&I Department Office to be on First floor.
vi. CPS on Third Floor.
vii. Arrangements that allow for windows at ends of corridors is desirable.

7. Next Steps
    a. Agenda for next meeting
        i. Design team will focus primarily on plan to incorporate input and comments from this meeting.
            (1) Budget may not allow penetrations between floors or additional windows, but the plan will be set up to accommodate if possible.
        ii. Discussion about MEP and building systems.
        iii. Development of strategies for the exterior.
    b. Next meeting tentatively scheduled for 19 February 2016 in the morning. Mike Lotito will confirm.

Report prepared by,

Chiang | O'Brien ARCHITECTS

Andrew Rappaport, AIA, LEED AP BD+C
Architect

cc: All attendees

MEETING REPORT
Wilber Hall Renovations, School of Education Phase III
State University of New York at Oswego

Meeting Date: 19 February 2016 @ 10:00 a.m. Meeting Location: 303 Park Hall
Revised: 1 March 2016

Attendees:

SUNY Oswego School of Education	Pam Michel Deb Trionfero	pamela.michel@oswego.edu deborah.trionfero@oswego.edu
Curriculum & Instruction	Marcia Burrell Barb Beyerbach R. Deborah Davis Anne Fairbrother Bobbi Schnorr	marcia.burrell@oswego.edu barbara.beyerbach@oswego.edu rdeborah.davis@oswego.edu anne.fairbrother@oswego.edu roberta.schnorr@oswego.edu
Counseling & Psychological Services	Mike LeBlanc	michael.leblanc@oswego.edu
Health Promotion and Wellness	Sandy Bargainnier	sandra.bargainnier@oswego.edu
SUNY Oswego Facilities Services	Allen Bradberry Mark Fuller Mike Lotito Linda Paris	allen.bradberry@oswego.edu mark.fuller@oswego.edu michael.lotito@oswego.edu linda.paris@oswego.edu
Chiang O'Brien Architects	Grace Chiang Andrew Rappaport Timothy Stevens	grace@chiangobrien.com andrew@chiangobrien.com timothy@chiangobrien.com
Pathfinder Engineers & Architects	Eric LePore David Meyer	elepore@pathfinder-ea.com dmeyer@pathfinder-ea.com

Notes from Discussion:

1. REVIEW OF PLANS
    a. Basement
        i. Alternative classroom
            (1) P. Michel contacted facilities and determined that the current lease is 2,100 square feet.
                (a) The lease expires before expected start of construction so program size of 600 square feet should be used.
            (2) The Alternative classroom is definitely staying in the basement.
        ii. Testing area shown in the Basement should move back up to the First Floor adjacent to Advising.
        iii. Mechanical, electrical and plumbing (MEP) areas was discussed by D. Meyer:
            (1) The intent is to reuse the existing chases and the Penthouse.
            (2) The mechanical space under the new lab wing will need to be reviewed but it may be sufficient.
            (3) Most of "Storage/Mechanical" space shown is intended for janitorial and general storage, not MEP.
    b. First floor
        i. The First Floor is very similar to layout reviewed at the last meeting, reusing as much of the existing

configuration as possible.
(1) With reusing existing partitions, not all spaces meet the exact program square footages.

ii. The large commons area is intended to bring people into the building and encourage students into the building.

iii. It was noted that the existing kitchen in the proposed Work/File room area is not currently proposed to be maintained since it is desired that the kitchen be located adjacent to one of the Conference Rooms.

iv. M. Burrell indicated that the Breakout spaces with the curved walls could become faculty offices if necessary.

v. Discussion:
(1) A. Bradberry noted that the hope had been to minimize the areas of First Floor renovation in order to contain costs.
(2) B. Beyerbach indicated that there are some acoustical concerns with sound transmission between spaces on the first floor.
(3) Look at maintaining the Conference Room in the space just north of the Department chair suite.
(a) Locate the Network area in the northwest corner and a kitchen adjacent to it.
(4) It was noted that even with large areas of the layout remaining, the HVAC system should provided with the same system as the rest of the building.
(5) A. Fairbrother requested at least two kitchens and a Faculty Lounge.

c. Second Floor
i. A Bonus Classroom is shown which is smaller than the other classrooms.
ii. Faculty Offices are located on the perimeter in case windows can be added.
iii. Two single occupant toilets and Janitor's Closet are included.
iv. Replace the Faculty Office below Conference Room 3 with a combined Copy/Print Area and Kitchenette.
(1) C&I confirmed that reducing the number of total number of C& I offices from 40 to 39 is acceptable.

d. Third Floor
i. Lab Suite layout with multiple rooms arranged in a suite was reviewed with M. LeBlanc.
(1) Center area can be used for group work and one-way windows should be placed between the observation spaces and session rooms and between the common suite open space and the session rooms.
(2) The Server area may not be required.
ii. Lucy Wing Resource Area is located on an exterior wall section that currently does not have windows.
iii. Quiet Space is shown in the southeast windowless corner of the building.
(1) C&I faculty requested that the Quiet Space be relocated to south center portion of the Second Floor in lieu of the Common Space there. Translucent walls or high interior transom could be utilized to help bring some natural light into the corridor.
(2) This location will be used for the Faculty Lounge.
iv. Acoustical separation between the classroom and session rooms is required.

2. EXTERIOR

a. Discussion of layout of spaces in relationship to existing exterior glazing.
b. The existing single pane aluminum windows will be replaced to improve energy efficiency and to meet LEED requirements.
i. Proposing that the sill of replacement windows will take advantage of the larger opening that is currently created by the existing exterior ventilator grill, making the windows slightly taller.

c. If budgets allow, adding additional windows at the perimeter is a priority.
d. An exterior screen on the roof could be added create a stronger profile for the roof and to create a dialogue with adjacent Park Hall.

3. DISCUSSION OF THE FLOOR OPENING BETWEEN THE BASEMENT AND THE FIRST FLOOR
    a. B. Beyerbach likes the added connection between floors even if there will not be much natural light in the basement.
        i. G. Chiang pointed out that basements can be light and airy even without natural light if handled appropriately.
    b. The faculty indicated that if the budget doesn't allow an opening to be placed between the Basement and First Floor, then they would prefer an additional classroom on the First Floor.

4. WELLNESS LAB
    a. S. Bargainnier joined the meeting and after reviewing the plans:
        i. Requested changing the name from Exercise Lab to Wellness Lab.
        ii. Commented that HPW is the fastest growing department on campus.
    b. Teaching in the space includes both theory and practice, classes are currently typically 30-49, so adjacent classroom is ideal.
        i. Primary use of space is to be instruction with some research use including blood draw.
        ii. Space needs to be a high tech classroom with video equipment, large screen TVs for interactive demonstrations with students.
        iii. Equipment will include one exercise bike, one treadmill, and minimal weights.
            (1) A list of required equipment will be forwarded to the design team by M. Lotito.
        iv. Need storage cabinets and an exercise floor surface.
    c. Two showers adjacent to the toilet areas would be utilized by Wellness Lab users.
        i. Showers could also help the LEED points since showers were not provided in the adjacent Park Hall.
    d. Ventilation and acoustical separation due to bass heavy music sometimes used in the Lab is very important.
        i. Doors to an adjacent classroom was discussed but decided against due to acoustical concerns.
    e. M. Lotito noted radon gas will be checked if necessary.

5. SCHEDULE
    a. Meeting with NYSERDA today to review potential funding opportunities.
    b. Demo and hazardous materials abatement on the Second and Third Floors is starting over spring break
    c. Next steps
        i. Design team will develop floor plans from the bubble diagrams, prepare a construction cost estimate and a phase report.
            (1) The estimate will likely impact the the decisions for development of the project for the next phase.
        ii. Design Manual phase includes more detailed interior planning and development.
        iii. Design Manual will be followed by Construction Documents, the preparation of technical drawings for bidding and construction.

Report prepared by,
Chiang | O'Brien ARCHITECTS

Andrew J. Rappaport, AIA, LEED BD+C
Architect

MEETING REPORT
Wilber Hall Renovations, School of Education Phase III
State University of New York at Oswego

Meeting Date: 19 February 2016 @ 12:00 p.m. Meeting Location: 303 Park Hall

Attendees:

SUNY Oswego	Allen Bradberry	allen.bradberry@oswego.edu
Facilities Services	Mitch Fields	mitch.fields@oswego.edu
	Mark Fuller	mark.fuller@oswego.edu
	Mike Lotito	michael.lotito@oswego.edu
	Linda Paris	linda.paris@oswego.edu
Chiang O'Brien Architects	Grace Chiang	grace@chiangobrien.com
	Andrew Rappaport	andrew@chiangobrien.com
	Timothy Stevens	timothy@chiangobrien.com
Pathfinder Engineers	Eric LePore	elepore@pathfinder-ea.com
& Architects	David Meyer	dmeyer@pathfinder-ea.com

Notes from Discussion:

1. BUDGET OVERVIEW
    a. Baer & Associates Construction Consultants prepared a preliminary SD estimate based on annotated plans to help review scope which came in over $10Million or approximately $217/square foot. The following are not included in this base cost, but have been identified as alternates: Ground Source Heat Pumps, additional fenestration, and the hole between the Basement and First Floor.
    b. The base estimate included:
        i. Modified Bit roof
            (1) $21 per square foot for roofing seems in line with recent College projects.
        ii. MEP system of distributed fan coils, a new mechanical room in the Basement, and two DOAS units in the penthouse.
        iii. Communication cabling will be handled directly by the college but the should continue to be carried in the construction cost estimate.
        iv. Lighting protection.
        v. Video surveillance. Only provide conduit and raceway.
        vi. Card access at all doors. This should be revised to only at the one exterior entrance
        vii. Communication
            (1) Contractor to provide raceway, conduit, and cable and include testing and termination.
            (2) Racks and equipment to be provided by the College.
            (3) WiFi to be installed by GC but provided by College.
            (4) Data, should be quad outlets.

2. REQUIRED PROJECT SCOPE WORK
    a. Abatement
        i. The partial abatement work already under contract is approximately $600,000 which is $100K less than budgeted
        ii. Abatement scheduled for the Spring 2016 includes all of the finishes on the Second and Third Floors . Chases on the First floor and the exposed portion of the chase above the Basement ceiling and any remaining hazardous materials in the Basement and First Floor will need to be part of the main

construction project, along with hazardous materials in the exterior wall and penthouse.

b. Replacement of existing windows
c. Roof
d. HVAC
    i. The intent is to change the First Floor VVT system to a DOAS is including the first floor

3. DISCUSSION

a. School of Education users are happy with the direction and the plan.
b. Mitch Fields indicated that in his experience Baer's estimates tend to be high, but in this case certainly not so inflated that their conservative approach would suggest that the project is actually on budget.
c. Abatement
    i. To keep the building Type IIA construction, the removed 1-hour fireproofing needs to be replaced.
    ii. Individual zone level controls are likely unaffordable, need to review an appropriate control zoning approach.
        (1) Also need to consider LEED and points targeted
    iii. Discussed the possible removal of the interior width of CMU with spray asbestos behind to allow for the installation of a metal frame wall with insulation. M. Lotitio to investigate with abatement contractor the cost effectiveness of removal of the CMU versus scraping the hazardous plaster off of the interior face of the CMU.

d. MEP work is planned to to include all new systems
    i. D. Meyer is proposing fan coils rather than big air handlers for this application as a more energy efficient approach and one that takes less above ceiling space since a fan coil system will have smaller distribution ductwork.
    ii. Updated energy code is expected to be issued in July of 2016 and will likely be effective immediately with no grace period.
        (1) Requires energy recovery, which would be possible in the Penthouse with DOAS volumes.

e. Design Team should evaluate a a reduced project scope that will meet the budget, with additional desired work identified as alternates.
    i. M. Fields suggested doing work on the First to Third Floors with the Basement build out as an alternate.
        (1) Requested that the project be "Brilliantly Inexpensive."

f. The work needs to maintain the College's core value of sustainablility.
g. Next steps
    i. Revise floor plan layouts in accordance with these discussions.
    ii. Refjne exterior improvements.
    iii. Refine and revise cost estimate to reflect above items.

Report prepared by,
Chiang | O'Brien ARCHITECTS

Andrew J. Rappaport, AIA, LEED BD+C
Architect

cc: All attendees

MEETING RECORD

Date: February 19, 2016
Time: 1:00 PM
Location: 301 Park Hall, SUNY Oswego

Project: NCP12909 – School of Education Phase 3

Project Topic: NYSERDA New Construction Program
Scribe: Chris Crockett

ATTENDEES REPRESENTING

Name	Company	Phone	Email
Grace Chiang	Chiang O'Brien Architects	607-241-0244	Grace@chiangobrien.com
Andrew Rappaport	Chiang O'Brien Architects	607-241-0244	Andrew@chiangobrien.com
Timothy Stevens	Chiang O'Brien Architects	607-241-0244	Timothy@chiangobrien.com
Dave Meyer	Pathfinder EA	585-698-2954	dmeyer@pathfinder-ea.com
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Tim Ganey	SUNY Oswego	315-312-3157	timothy.ganey@oswego.edu
Ken Swan	M/E Engineering	716-845-5092	kjswan@meengineering.com
Chris Crockett	SPC, Inc.	585-671-8110	ccrockett@spc-ny.com

- **General Discussion**

Chris Crockett explained NYSERDA's New Construction Program (NCP) program goals and process. The project is eligible for services and subsidies as defined by PON 1601. A technical assistance (TA) service provider, M/E Engineering, has been assigned to the project.

Subsidies for TA services discussed: NYSERDA will pay the first $5,000, with a 50/50 split on anything above up to a maximum NYSERDA contribution of $75,000 for applicants choosing to utilize program technical assistance providers. NYSERDA will increase the maximum funding amount for TA Services by an additional $25,000 ($100,000 total) to identify Demand Response opportunities. The TA will prepare a scope of work based on the meeting.

All energy conservation measures (ECM) analyzed must pass a Total Resource Cost (TRC) test in order for NYSERDA to make capital incentive offers. NYSERDA reserves the right to remove select incentives categories and/or ECMs as required to ensure the project as a whole passes the TRC test.

NYSERDA encourages commissioning in all of its projects, but requires it on all projects receiving incentive awards over $100,000 or incorporate advanced daylighting controls. Applicants may have required commissioning services provided by a contractor of their choice or NYSERDA can help identify a consultant for these services. Commissioning service providers must meet minimum criteria, and follow procedures and reporting requirements as established by NYSERDA. For any applicant wishing to incorporate building system commissioning into the

project, NYSERDA will increase capital financial incentive offers by 10% for building system commissioning, up to a maximum of $25,000.

For applicants pursuing a LEED or NY-CHPS certification, NYSERDA will further increase its financial incentives by an additional 10% for projects achieving certification with 3 EAc-1 LEED points or 2 Energy 3.1.3 NY-CHPS points to a maximum of $50,000. The incremental cap is also increased from 60% to 75%.

NYSERDA will pay an amount equal to its share of the energy analysis TA services for Green Building TA services with applicants interested in pursuing sustainable design. The total cost of Green building TA services subsidy may not exceed $25,000 and is paid only upon successful LEED certification awarded by the Green Building Certification Institute (GBCI).

- **Project Scope:** The School of Education is planning a $7.5M renovation of floors 1 thru 3, plus the basement level with plans to gut each floor, replace all plumbing, lighting, mechanical systems, and include extensive envelope improvements. The total square footage for all floors to be renovated will be approximately 48,000 square feet. The project is pursuing LEED Gold certification. Project delivery will be Design/Bid/Build. Project is currently in schematic design and project completion is expected to occur by 8/31/2017.
- **Envelope:** Improved insulation to occur at both the exterior walls and roof system. Existing windows will be replaced with new non-operable, high performance windows/glazing. Performance details TBD.
- **HVAC:** The existing chiller/cooling tower will be removed and be replaced by tying into the recently constructed chiller and boiler plants completed from Phase 2. Fan coils or chilled beams are planned, team has yet to decide which direction to go. Energy wheel with DOAS ventilation is planned. Radiant heat around the perimeter will most likely be used. Variable speed pumping will be used.
- **Interior Lighting:** High efficiency LED lighting planned throughout. NYSERDA LED qualifications were discussed, noting that all LED make and model numbers must be listed with either Energy Star, Design Light Consortium, or DOE Lighting Facts to qualify for incentive opportunity. Possible daylighting controls may be included in design, primarily around perimeter offices.
- **Exterior Lighting:** LED wall packs will be used at entry locations, making for minimal exterior lighting improvements.
- **Domestic HW:** Low flow valves throughout, possible shower.
- **Other:** New Energy Star appliances and computer equipment are expected. Some existing equipment may be re-used, TBD. Operating hours will be from 7:30 AM thru 10:30 PM.

The following is a list of energy conservation measures to be considered utilizing the **Whole Building** approach:

- Super insulated envelope (roof, walls)
- High performance glazing and window fenestration
- High efficiency lighting
- Daylight harvesting w/ controls
- High efficiency fan coils, or chilled beams TBD
- Energy Wheel DOAS Ventilation
- Demand Control Ventilation
- Variable speed pumping
- Energy Star equipment

PLEASE NOTE: In order to receive capital incentives for Solid State Lighting (LED), NYSERDA requires fixtures be listed on either the Design Lights Consortium, Energy Star, or DOE Lighting Facts solid state lighting qualified products list:

http://www.designlights.org/qpl

http://www.energystar.gov/productfinder/product/certified-light-fixtures/results

http://www.lightingfacts.com/

- **Action Items**
  - Chris Crockett (OPC) to complete and distribute meeting minutes.
  - M/E Engineering to submit draft Task Work Order (TWO) to OPC.
  - SUNY Oswego to confirm acceptance of Technical Assistance Task Work Order Scope.

- **Project Schedule - project delivery method: Design, Bid and Build**

Schematic Design:	*February 29, 2016*
Design Development:	*July 7, 2016*
Construction Documents:	*September 15, 2016*
Project Bid Date:	*September 30, 2016*
Construction Complete:	*August 31, 2017*

- **Proposed TA Schedule:**

Task Work Order from TA:	02/26/16
Participation Agreement to Applicant:	03/27/16
Notice to Proceed to TA:	04/26/16
Draft Report Submitted:	TBD
Final Report Issued by NYSERDA:	TBD

Copies: Attendees, File
OPCC, Sustainable Performance Consulting, Inc.
Stephen Finkle, NYSERDA Senior Project Manager

Att: PON1601 Incentives – Upsate.PDF

Note: We believe the above information is an accurate representation of the events and discussions that transpired at this meeting. If you feel that there are any items misstated or omitted, please contact Sustainable Performance Consulting, Inc, in writing.

NEW CONSTRUCTION PROGRAM INCENTIVES AND SERVICES FOR PROJECTS NOT LOCATED IN CONSOLIDATED EDISON SERVICE TERRITORY

PON1601

Applications will be accepted beginning from January 4, 2012 through December 31, 2015 or until funds are fully committed, which ever comes first

TECHNICAL ASSISTANCE

Basic Technical Assistance Services • **Energy Analysis:** Requires the use of an NCP Technical Assistant consultant currently under contract to NYSERDA to assist applicants and their design teams to identify energy efficiency opportunities. .	• NYSERDA will pay the first $5,000 and will cost share up to 50% of the balance up to a total contribution of $75,000. • NYSERDA will increase the maximum funding amount for technical services by an additional $25,000 ($100,000 total) to identify Demand Response opportunities.
Green Building Services • NYSERDA will provide financial assistance for the applicant's green building consultant for projects seeking green building assistance. Applicants may use a green building consultant of their choice or NYSERDA can help identify a provider for these services.	• For green building technical services on projects that achieve LEED® or NY-CHPS certification, NYSERDA will pay an additional amount equal to NYSERDA's share of energy analysis TA services, up to a total additional NYSERDA contribution of $25,000.
Building Commissioning Services • NYSERDA will provide financial assistance for the applicant's commissioning consultant for projects seeking commissioning assistance. Applicants may use a commissioning provider of their choice, or NYSERDA can help identify a consultant for these services.	• Commissioning is required if incentive award is more than $100,000. Commissioning also is required for all lighting systems that incorporate advanced daylighting dimming or switching controls. • NYSERDA will increase its financial incentives by 10% to offset the applicant's cost of commissioning, up to a maximum NYSERDA contribution of $25,000.
Design Team Incentives (for Whole Building Design and Green Buildings projects)	
1. Designs 3% to 9% above designated baseline* →	1. $25 per peak summer kW saved, maximum $3,400
2. Designs 9.1% to 16% above designated baseline* →	2. $40 per peak summer kW saved, maximum $5,000
3. Designs 16.1% to 23% above designated baseline* →	3. $55 per peak summer kW saved, maximum $6,700
4. Designs 23.1% to 30% above designated baseline* →	4. $70 per peak summer kW saved, maximum $10,000
5. Designs 30.1% or more above designated baseline* →	5. $90 per peak summer kW saved, maximum $15,000

FINANCIAL INCENTIVES

Total project incentive cap $825,000 (not including bonus incentives).

Pre-Qualified Measure	• Pre-set incentives are offered for select pre-qualified measures • Maximum $30,000 per project
Custom Measure For incentive consideration, each measure must exceed designated baseline* by a minimum of 3%.	• $0.10 per kWh saved; $225 per summer peak kW saved • Maximum $200,000 per project, including any pre-qualified measures • Incentive capped at 50% of incremental cost • With the exception of lighting systems, incentives are not available for measures that reduce paybacks to less than one year

* Designated baseline is ASHRAE/IESNA 90.1-2007

Whole Building Design

For incentive consideration overall, Whole Building Design must exceed designated baseline* by a minimum of 3%.

- Maximum $200,000 per single measure and $750,000 per project
- Incentive capped at 60% of incremental cost (75% for LEED® or NY-CHPS certified buildings)
- With the exception of lighting systems, incentives are not available for measures that reduce paybacks to less than one year

1. Designs 3% to 9% above designated baseline* →	1. $0.11 per kWh saved; $230 per summer peak kW saved
2. Designs 9.1% to 16% above designated baseline* →	2. $0.12 per kWh saved; $240 per summer peak kW saved
3. Designs 16.1% to 23% above designated baseline* →	3. $0.13 per kWh saved; $250 per summer peak kW saved
4. Designs 23.1% to 30% above designated baseline* →	4. $0.14 per kWh saved; $260 per summer peak kW saved
5. Designs 30.1% or more above designated baseline* →	5. $0.16 per kWh saved; $280 per summer peak kW saved

Green Building Option (LEED® or NY-CHPS certification)
For projects that achieve LEED® or NY-CHPS certification, incentives through the Whole Building Design approach apply, as well as the additional incentives described in this section.

- Incentive increased by 10% for projects with at least 3 EAc-1 LEED® points, or at least 2 Energy 3.1.3 NY-CHPS points
- Maximum incentive increase is $50,000
- Incentive cap increased to 75% of incremental cost

BONUS INCENTIVES

Applicant Leed® incentives

Incentive is available to offset soft costs for certification, for LEED® projects with at least 3 EAc-1 points.

1. Project is less than 50,000 square feet (sf) →	1. $5,000
2. Project is equal to or greater than 50,000 sf →	2. $10,000