01
MAY
2018

Largo Student Center Renovation/Addition

Educational Specifications (Part I and II Program)

PART II
DETAILED PROJECT DESCRIPTION

SECTION 4:
Space Requirements

4.01 Building Description and Concept

The Largo Student Center project is for the renovation of the 69,116 GSF building and the construction of two additions totaling 64,732 GSF. A two-story building addition and entrance (approximately 3,200 GSF) is planned for the east side of Largo Student Center and a three-story addition with entrance (approximately 61,532 GSF) is planned for the northwest side of the existing building. The interior of the building will be completely renovated and reconfigured, except for the Rennie Forum, and integrated with the new building additions both horizontally and vertically. The total building will provide the types and quantities of interior spaces identified in this document to support the current and future space, program and functional needs of the College. Figure 3.1 illustrates the proposed building concept plan.

4.02 Building Organization and Desired Space Adjacencies

The three-story building is proposed to be organized for functional effectiveness and efficiency that will optimize support for programming and service delivery. The organization of and signage in the building is intended to make access and wayfinding to key destinations convenient and user friendly.

The first floor will serve as the main entry floor, with entrances on the east and west, and will be organized around an open and highly active 'boulevard' that will be used for circulation and programming. Destination spaces such as retail, multi-purpose spaces, study/lounges, and instructional areas will be organized on the first floor along the 'boulevard.' Central to the boulevard will be a grand stair that connects the first floor to the second floor for ease of circulation and to connect to prime destinations on the second floor that include dining, student government and organization offices, student success administration offices, and student activity and study spaces. In addition, easily accessible accommodations for the disabled, such as elevators, will be situated near this vibrant, central area of the building. The information commons located on the boulevard creates an integrated environment that supports high levels of student and campus engagement. The third floor will house the main meeting and conference event spaces and be served by the building entrance to the west and an elevator stair core conveniently located off of the entrance.

Table 4.1 provides a summary by floor of the programs, spaces, and occupants proposed for Largo Student Center.

Table 4.1: Proposed Spaces, Occupants and Functions by Floor

1st Floor
College Store / PGCC Cares
Multi-purpose Student Space
Rennie Forum
Collaborative Learning Classrooms
Information/Learning Commons
Environmental Services Offices
Building Loading, Service and Storage
Vending

2nd Floor
Dining
Market/Maker Space
Auxiliary Services and Event Management
Student Engagement and Leadership Offices
Student Study, Lounge, and Meeting Spaces
Student Government
Campus Activities Board
Owl Newspaper

3rd Floor
Large Meeting / Conference Space
Breakout Rooms

The organization concept for the building and each floor and the desired space adjacencies for each organizational unit are provided the following illustrations.

Figure 4.1: Overall Building Space Adjacencies

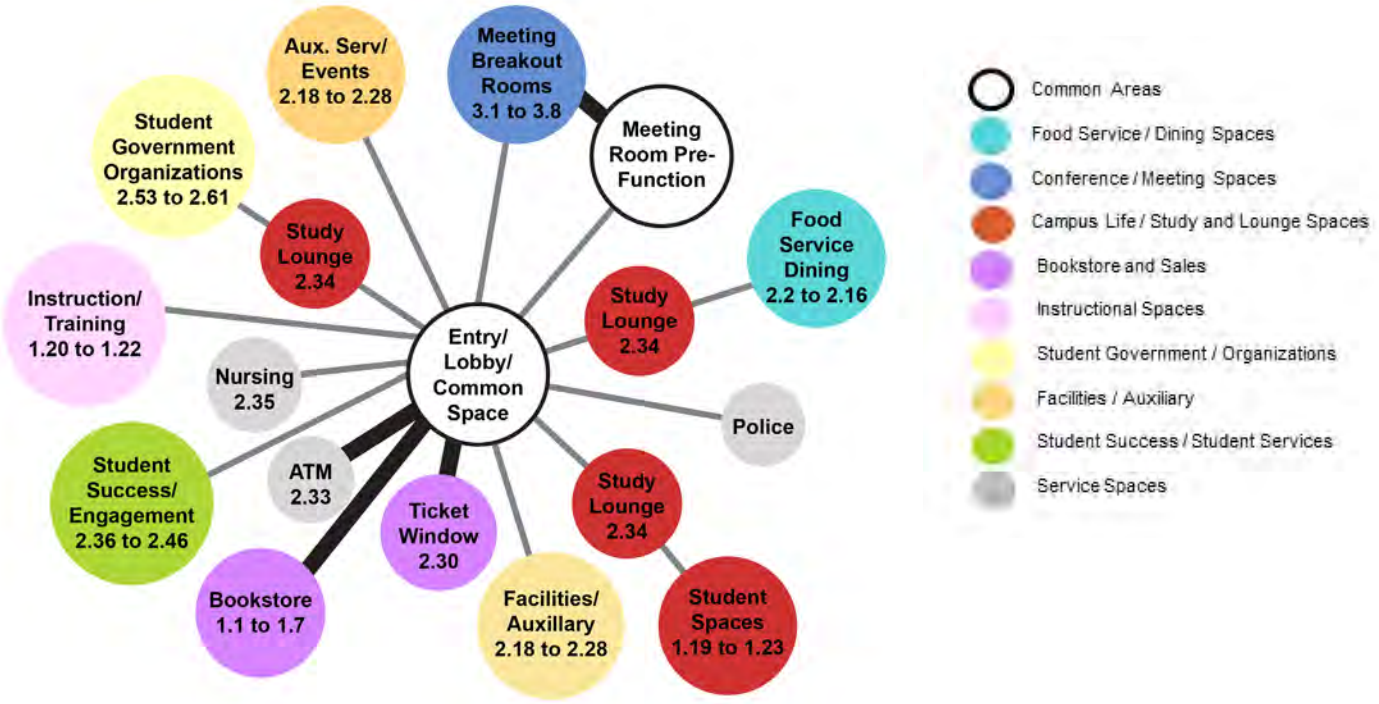
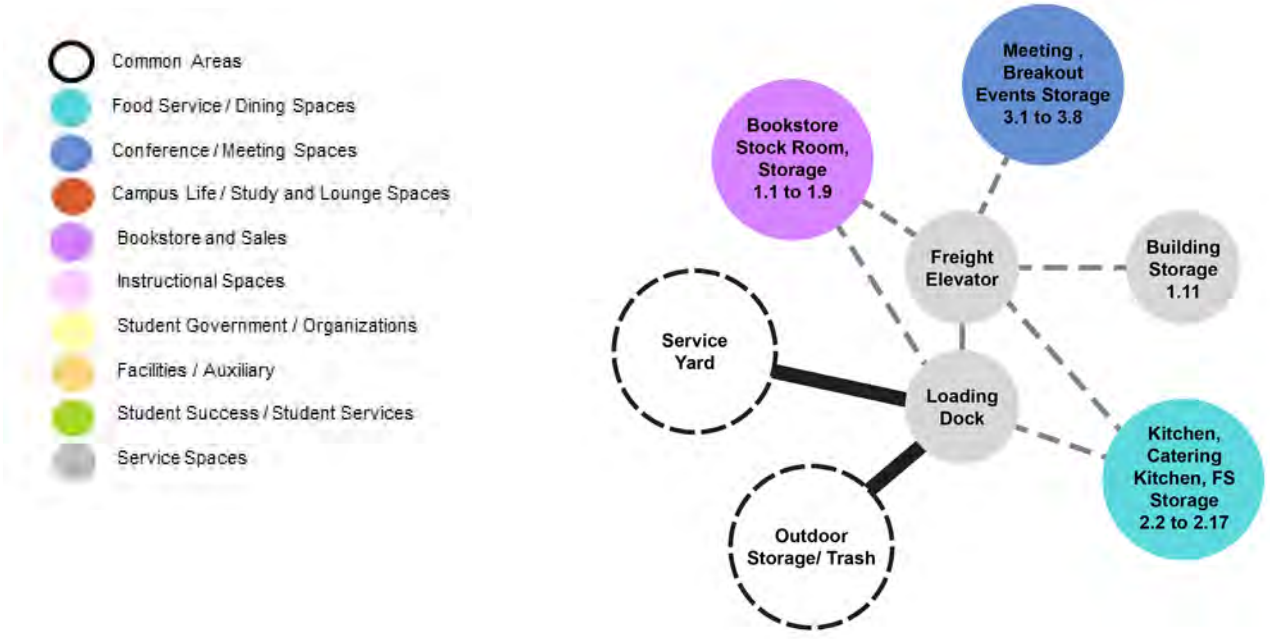


Figure 4.2: Building Service Access



First Floor

With the consolidation of Academic Affairs and Workforce Development and Continuing Education, it is critical that the College provides collaborative classroom and laboratory spaces designed to support the desired teaching methodologies and create environments that engage students in active learning. The first floor of the Largo Student Center will house five new collaborative learning spaces. Spaces will be designed to accommodate thirty-two students. The spaces will be designed to enable group collaboration. Each learning lab will have flexibility in furnishings and technology to be rearranged with ease and speed to enable switching rapidly between individual and groups, presentation, communication, and collaborative modes. The rooms will allow students to work quietly and reflectively, operate in small groups discussing and debating, and to meet collectively to report, discuss, plan and/or teach. This floor will also house study, lounge, multi-purpose student activity spaces, the College store, the 240-seat Rennie Forum lecture hall, and Environmental Services office spaces.

Figure 4.3: First Floor Concept

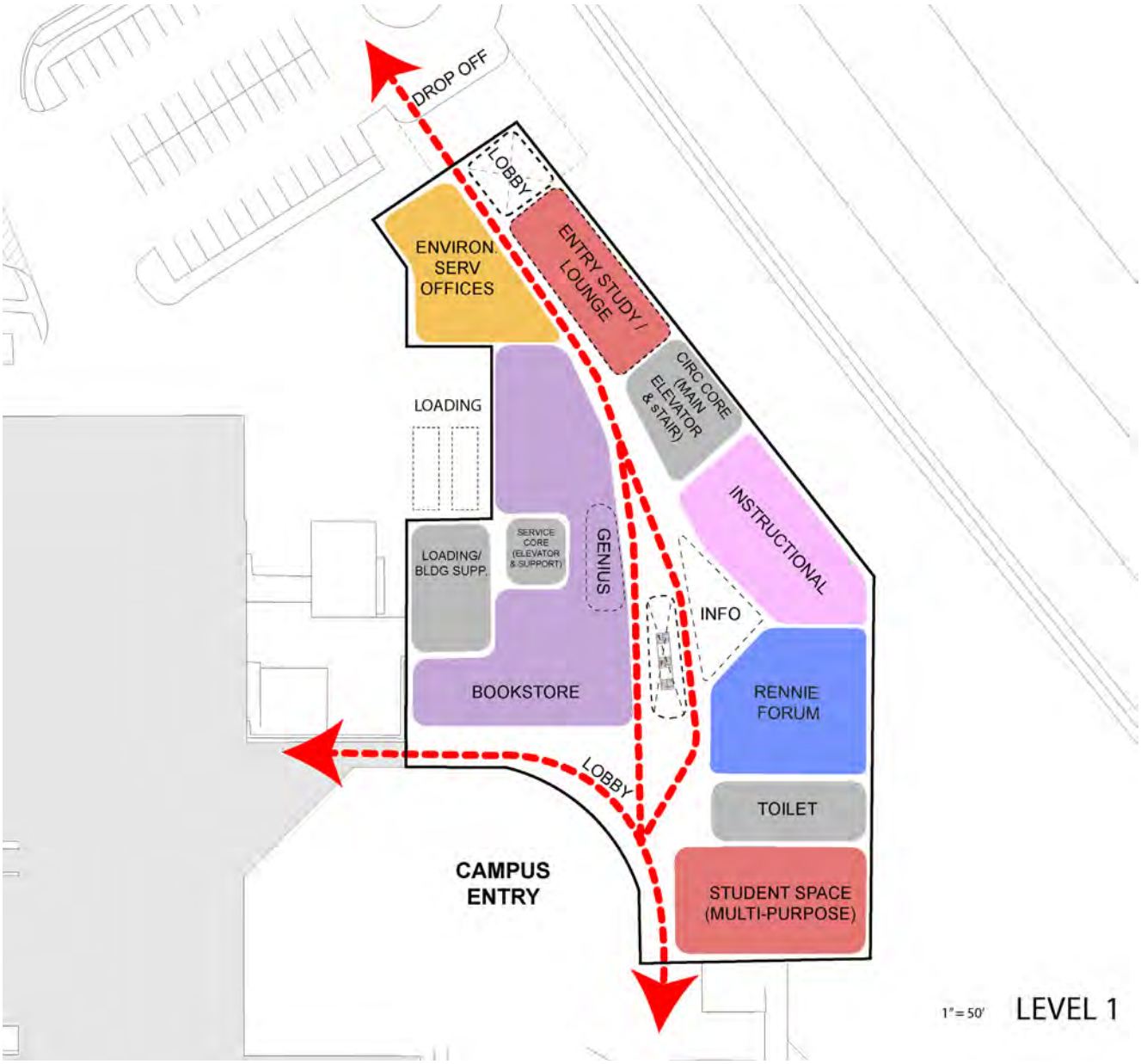


Figure 4.4: Bookstore and PGCC Cares

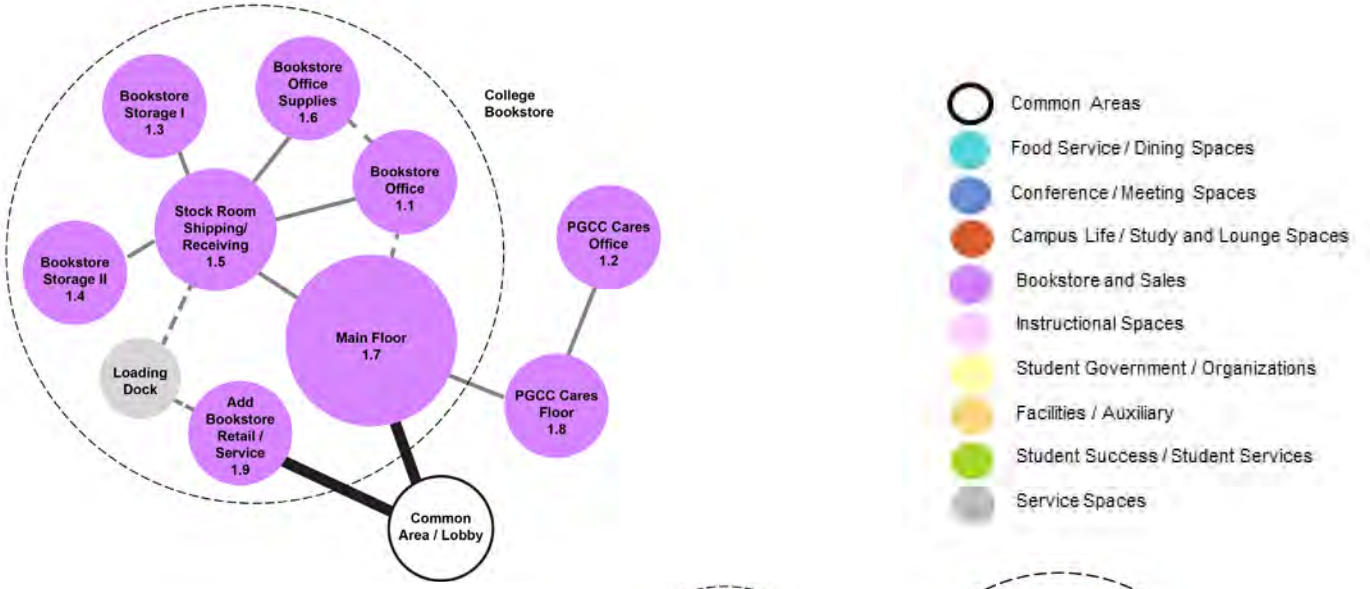


Figure 4.5: Environmental Services

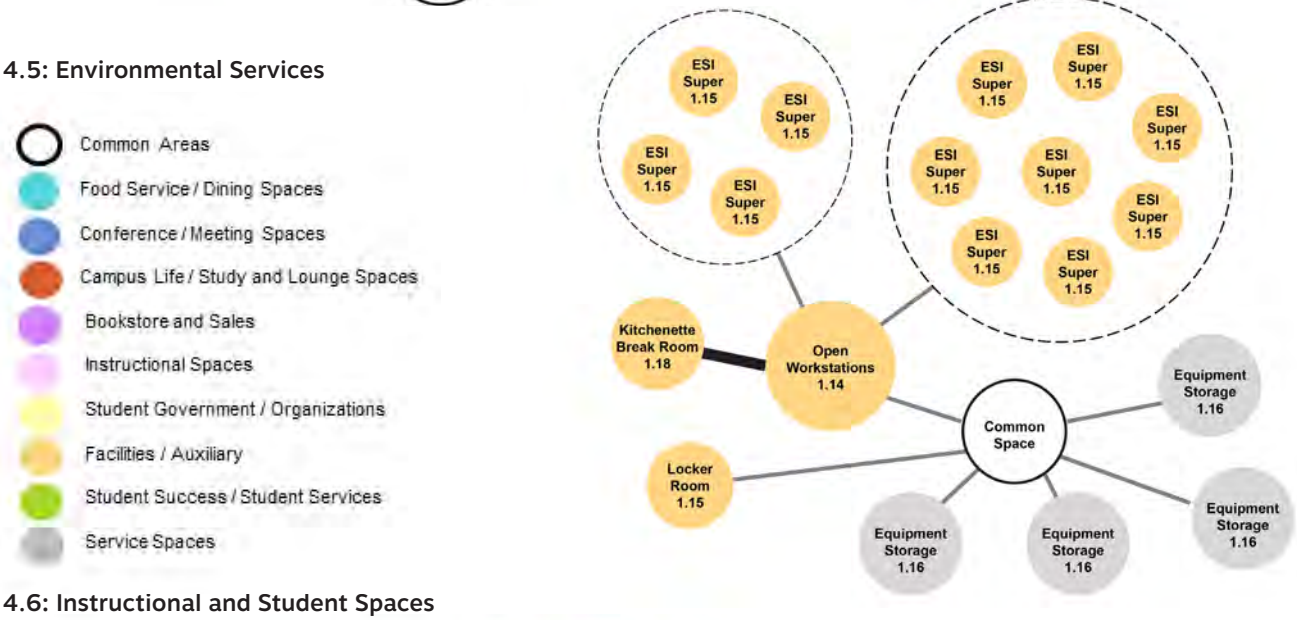
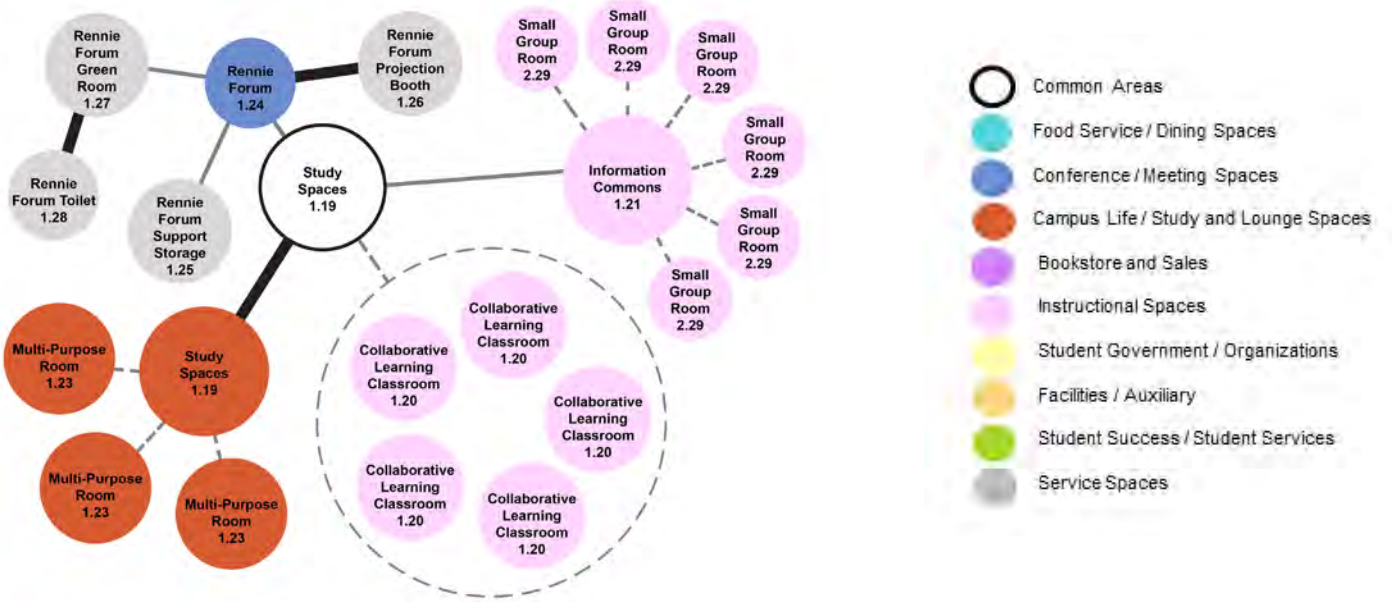


Figure 4.6: Instructional and Student Spaces



Second Floor

The second floor will house the student programs and spaces and be organized around the boulevard and provide an informal "home away from home" for students. A newly revamped and expanded food service and dining area will remain on the second floor adjacent to the grand stair serving the college's community as well as the public when in operation. The second floor will include: Auxiliary Services and Events Offices and Support Spaces; Food Service and Dining Spaces; Student Government and Organization Spaces; Student Meeting, Study and Lounge Spaces; and Student Success and Engagement Office and Support Spaces.

Figure 4.7: Second Floor Concept

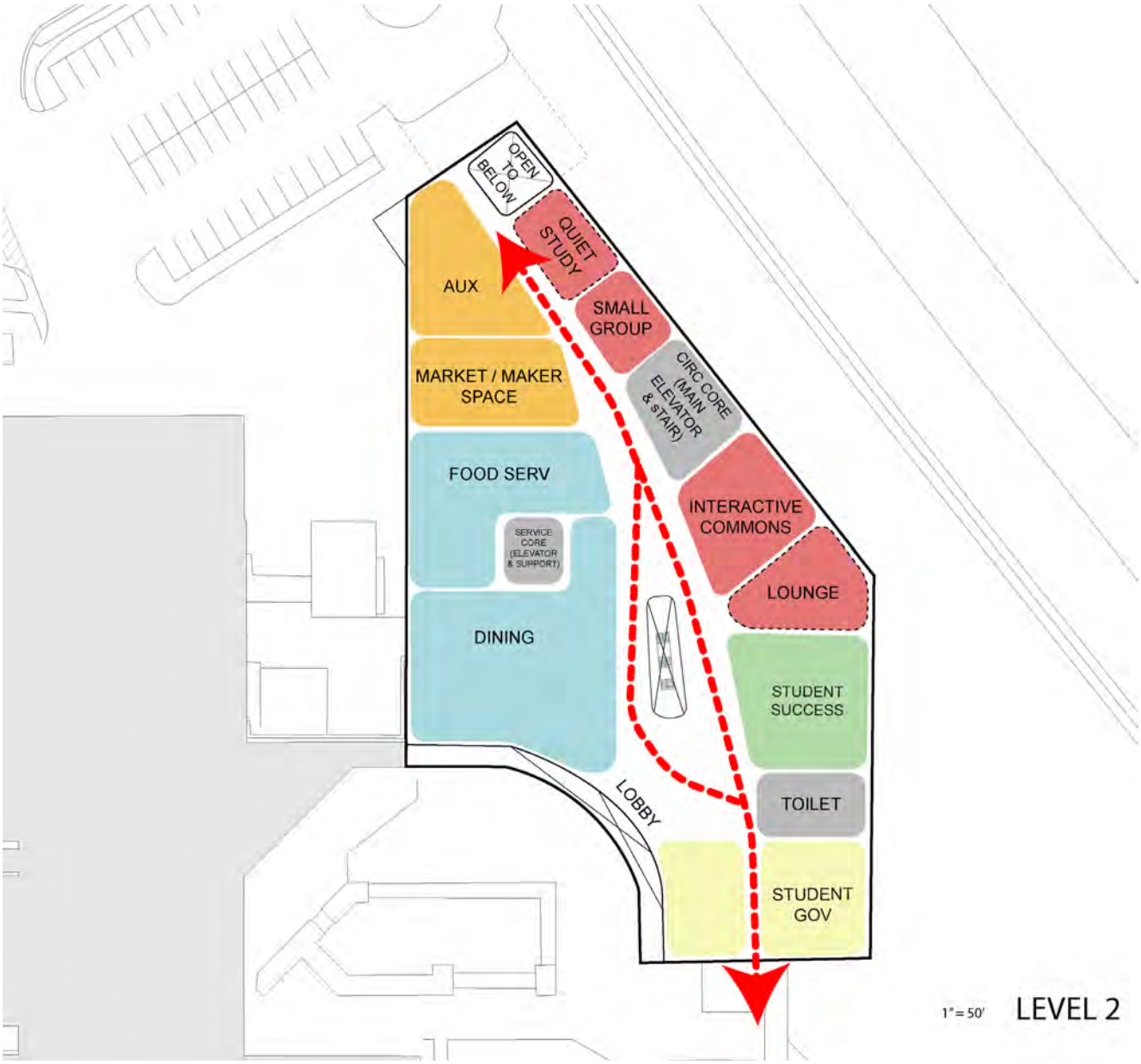


Figure 4.8: Dining and Market

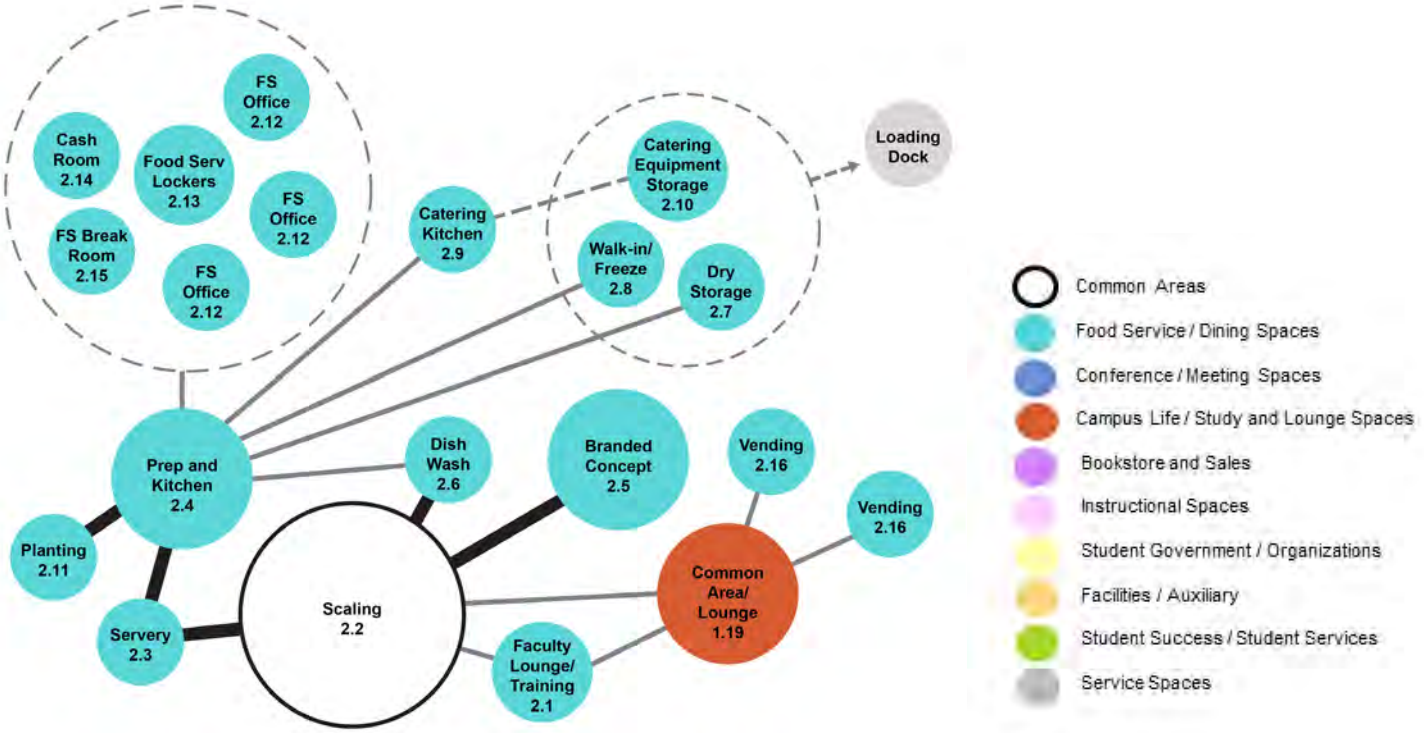


Figure 4.9: Auxiliary Services and Events Offices

Figure 4.10: Student Success and Engagement Offices and Support Spaces

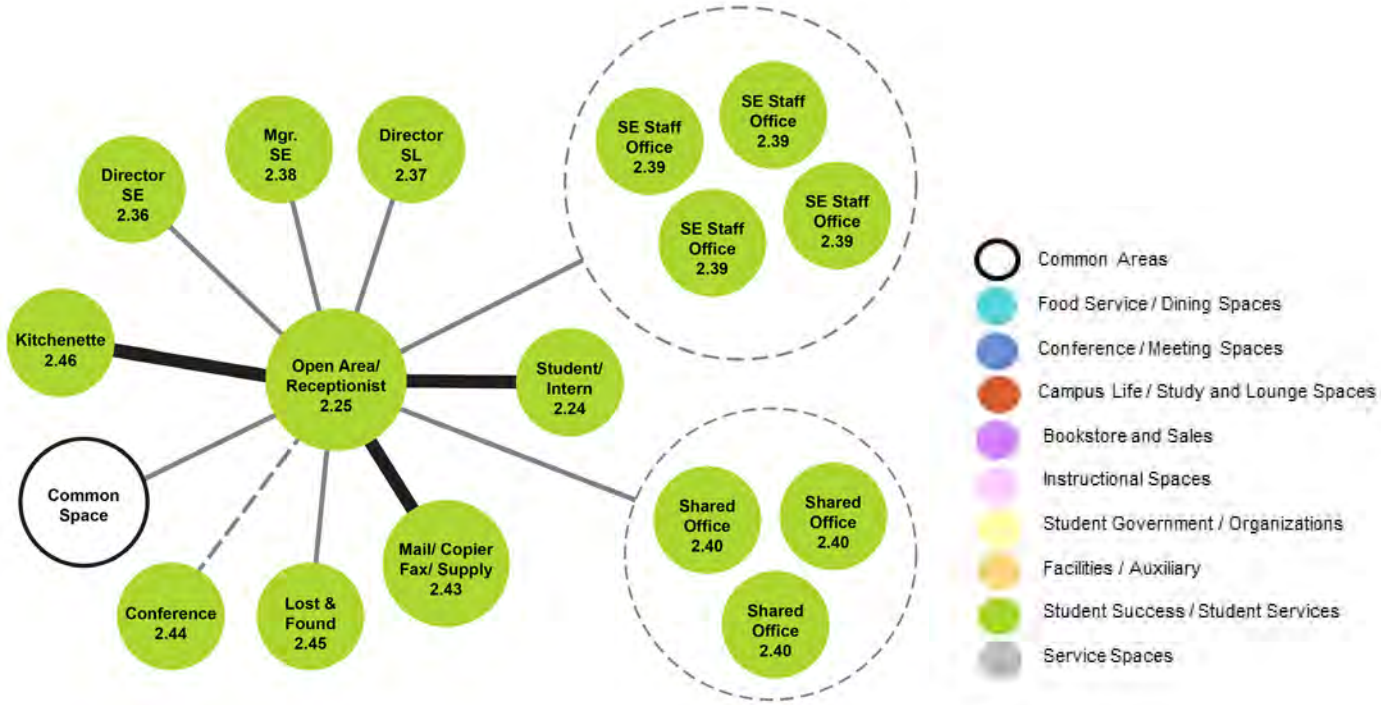
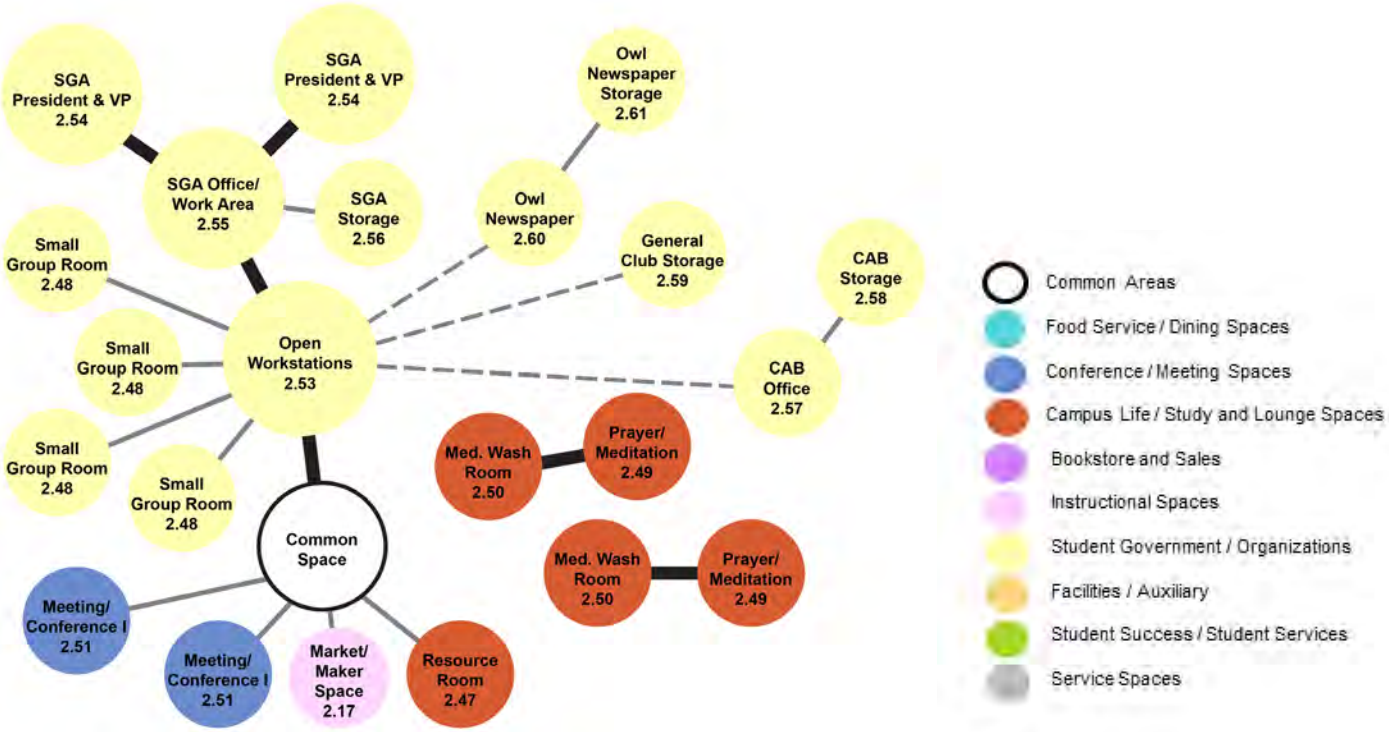


Figure 4.11: Student Government and Organization Spaces



Third Floor
The primary function of the third floor is to provide meeting space for students, faculty and external events. The main meeting room will be designed to accommodate 550 occupants in banquet style seating. Adjacent to the meeting room will be breakout areas, meeting room support space and storage. Highly utilized for events and meetings by the community, the meeting room located away from the student-oriented programs will allow maximum utilization while still serving the needs of the campus. The third floor will include: Auxiliary Services and Events Meeting and Support Space.

Figure 4.12: Third Floor Concept

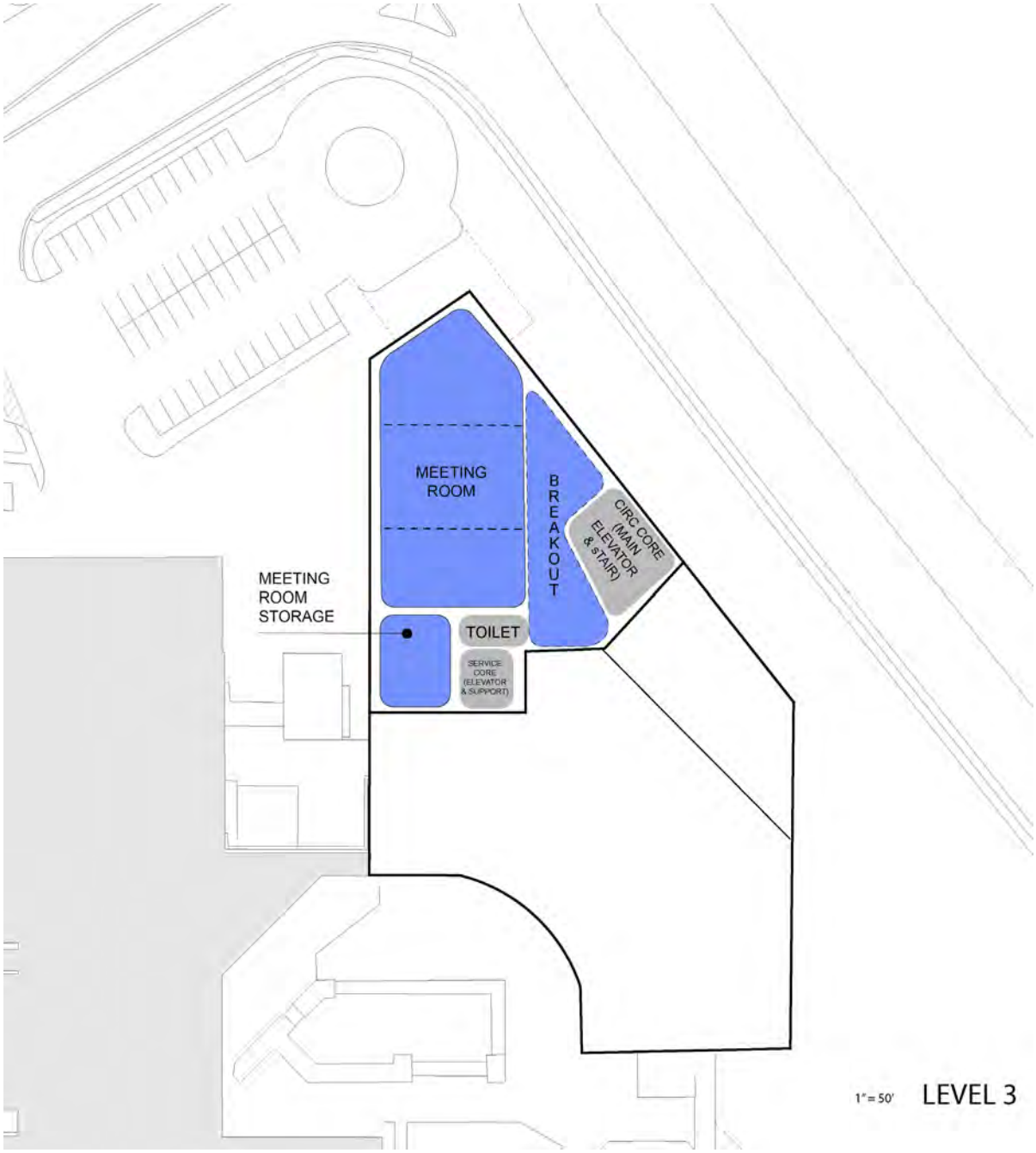
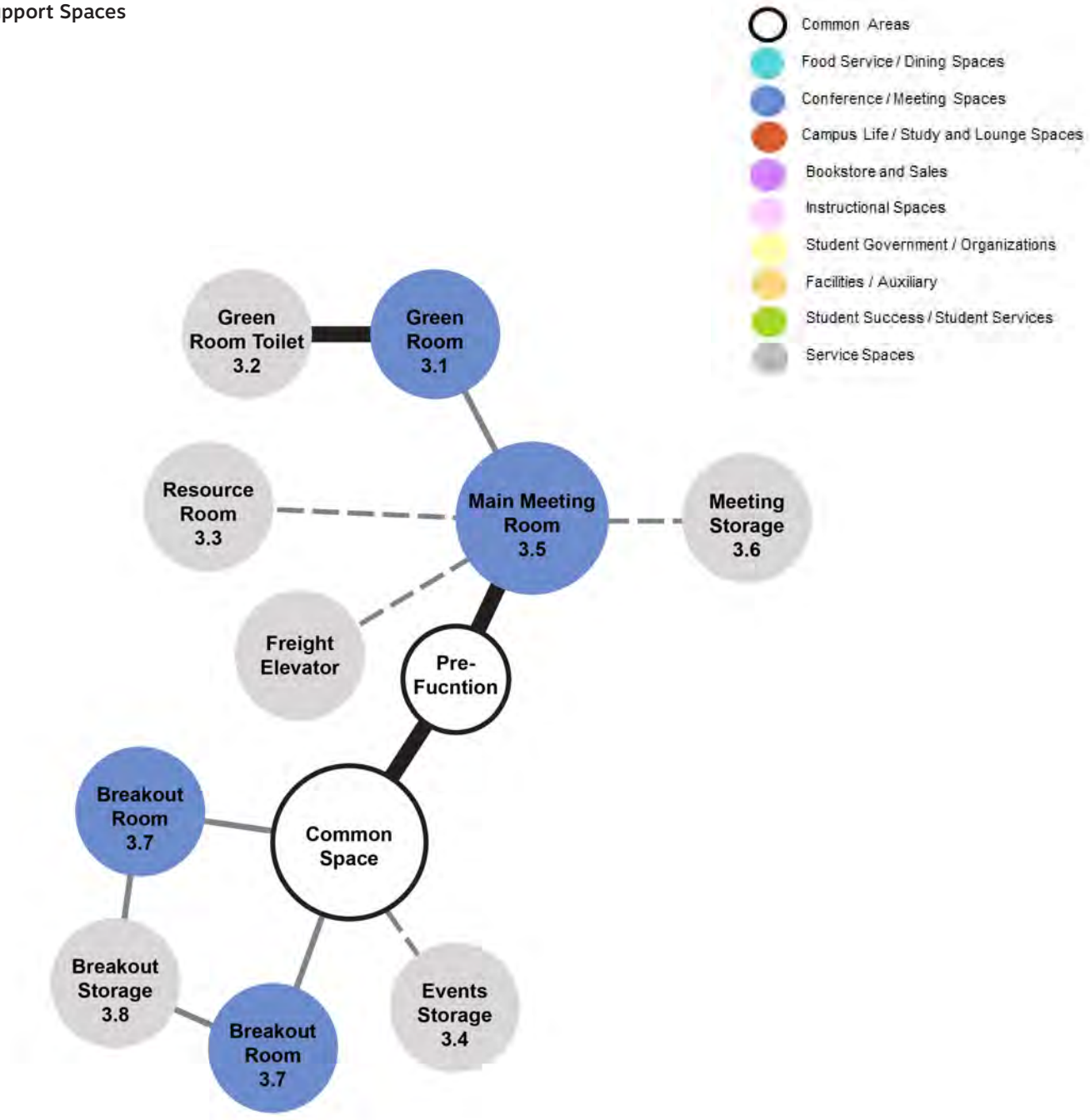


Figure 4.13: Auxiliary Services and Events Meeting and Support Spaces



4.03 Building Program and Room Data Sheets

Table 4.2 provides a detailed listing of spaces proposed in the program. Each space listed has a corresponding space/room data sheet that provides detailed information on design parameters and performance criteria required for that space.

Table 4.2: Largo Student Center Space Program Summary

No.	Space Name	Units/ Rooms	Persons per Room	NASF per Room	Total Proposed NASF	HEGIS
FIRST FLOOR						
1.1	Bookstore Office	1	1	115	115	665
1.2	PGCC Cares Office	1	3	200	200	310
1.3	Bookstore Storage I	1	N/A	163	163	665
1.4	Bookstore Storage II	1	N/A	195	195	665
1.5	Bookstore Stock Room/Shipping & Receiving	1	N/A	1,110	1,110	665
1.6	Bookstore Office Supplies	1	N/A	300	300	665
1.7	Bookstore Main Floor	1	100	6,200	6,200	660
1.8	PGCC Cares Floor	1	8	800	800	665
1.9	Additional Bookstore Retail/Service	1	20	1,000	1,000	660
1.10	Additional Storage	1	N/A	200	200	665
1.11	Building Storage	1	N/A	500	500	730
1.12	Environmental Service (ES) II Supervisors	8	1	120	960	310
1.13	Environmental Service (ES) I Supervisors	4	1	115	460	310
1.14	Open Workstations	1	12	825	825	310
1.15	Environmental Services (ES) Locker Room	1	N/A	200	200	315
1.16	Environmental Services (ES) Equipment Storage Room	1	N/A	300	300	315
1.17	Environmental Services (ES) Product Supply Room	2	N/A	150	300	315
1.18	Environmental Services (ES) Kitchenette/Breakroom	1	8	335	335	315
1.19	Study/Lounge Spaces	1	75	1,500	1,500	410

No.	Space Name	Units/ Rooms	Persons per Room	NASF per Room	Total Proposed NASF	HEGIS
FIRST FLOOR						
1.20	Collaborative Learning Classrooms	5	32	1,215	6,075	110
1.21	Information Commons	1	4	1,500	1,500	410
1.22	Interactive Commons	1	100	2,500	2,500	670
1.23	Multi-Purpose Room	2	35	1,125	2,250	670
1.24	Rennie Forum	1	240	3,800	3,800	610
1.25	Rennie Forum Support/Storage	1	N/A	300	300	615
1.26	Rennie Forum Projection Booth	1	2	116	116	615
1.27	Rennie Forum Green Room	1	5	250	250	615
1.28	Rennie Forum Toilet	1	N/A	50	50	615
SECOND FLOOR						
2.1	Faculty/Staff Lounge/Training Room	1	30	800	800	630
2.2	Seating	1	250	16	4,061	630
2.3	Servery	1	N/A	1,800	1,800	635
2.4	Prep and Kitchen	1	N/A	1,200	1,200	635
2.5	Branded Concept	1	10	1,500	1,500	630
2.6	Dish wash	1	N/A	400	400	635
2.7	Dry Storage	1	N/A	800	800	635
2.8	Walk-in Coolers/Freezer	1	N/A	800	800	635
2.9	Catering Kitchen	1	N/A	500	500	635
2.10	Catering Equipment Storage	1	N/A	400	400	635
2.11	Plating Room	1	N/A	400	400	635
2.12	Food Services Offices	3	1	115	345	635
2.13	Food Service Locker Room and Toilet	1	6	200	200	635
2.14	Cash Room	1	N/A	100	100	635
2.15	Food Service Break Room	1	10	195	195	635
2.16	Vending	2	N/A	60	120	660
2.17	Market/Maker Space	1	N/A	1,500	1,500	680
2.18	Director, Aux Services and Events Office	1	1	150	150	310
2.19	Manager, Events Scheduling and Operations Office	1	1	130	130	310
2.20	Coordinator, Events Scheduling and Operations Office	1	1	115	115	310
2.21	Activities Program Assistant Office	1	1	115	115	310
2.22	Manager, Events Office	1	1	130	130	310
2.23	Events Scheduling FT Staff Office	2	1	115	230	310

No.	Space Name	Units/ Rooms	Persons per Room	NASF per Room	Total Proposed NASF	HEGIS
SECOND FLOOR						
2.24	Aux Services and Event Management - Student Worker/Intern Office	1	3	120	120	310
2.25	Aux Services and Event Management - Open Area/ Receptionist Office/Welcome Area	1	4	320	320	310
2.26	Mail/Copier/Fax/Office Supplies Storage	1	N/A	200	200	315
2.27	Aux Services and Event Management - Conference Room	1	10	250	250	350
2.28	Aux Services and Events Management - Kitchen-ette/Breakroom	1	4	125	125	315
2.29	Small Group Rooms	6	6	120	720	410
2.30	Ticket/Transaction Windows	1	2	100	100	660
2.31	Ticket Cash Room	1	N/A	100	100	665
2.32	Ticket Office	1	1	115	115	665
2.33	ATM	1	N/A	60	60	660
2.34	Study/Lounge Spaces	3	75	1,500	4,500	410
2.35	Nursing Room	1	1	100	100	835
2.36	Program Director, Student Engagement and Lead-ership Office	1	1	150	150	310
2.37	Program Director, Student Life Office	1	1	150	150	310
2.38	Manager, Student Engagement Office	1	1	130	130	310
2.39	Student Engagement FT Staff Office	4	1	115	460	310
2.40	Student Engagement - Shared Offices	3	2	230	690	310
2.41	Student Engagement - Student Worker/Intern Office	1	3	150	150	310
2.42	Student Engagement - Open Area/Receptionist Office	1	4	490	490	310
2.43	Student Engagement Workroom	1	N/A	200	200	315
2.44	Student Engagement - Conference Room	1	10	250	250	350
2.45	Student Engagement - Lost and Found Storage	1	1	100	100	315
2.46	Student Engagement - Kitchenette/Breakroom	1	4	125	125	315
2.47	Resource Room	1	6	300	300	315
2.48	Small Group Rooms	4	4	115	460	315
2.49	Prayer/Mediation Room	2	10	150	300	610
2.50	Meditation Wash Room	2	1	80	160	615
2.51	Meeting/Conference Room I	1	18	425	425	350
2.52	Meeting/Conference Room II	1	14	350	350	350
2.53	Open Workstations (includes all huddle areas)	1	27	1,620	1,620	310

No.	Space Name	Units/ Rooms	Persons per Room	NASF per Room	Total Proposed NASF	HEGIS
SECOND FLOOR						
2.54	SGA President and Vice President	2	1	115	230	310
2.55	SGA Office/Work Area	1	6	360	360	310
2.56	SGA Storage	1	N/A	200	200	315
2.57	CAB Office	1	4	475	475	310
2.58	CAB Storage	1	N/A	200	200	315
2.59	General Club Storage	1	N/A	200	200	315
2.60	Owls Newspaper Office	1	10	675	675	310
2.61	Owls Newspaper Storage	1	N/A	115	115	315
SECOND FLOOR						
3.1	Green Room	1	4	250	250	615
3.2	Green Room Toilet	1	1	50	50	615
3.3	Resource Room	1	N/A	300	300	615
3.4	Events Storage	1	N/A	200	200	615
3.5	Main Meeting Room/Ballroom	1	750	9,800	9,800	615
3.6	Meeting Room Storage	1	N/A	900	900	615
3.7	Break Out Rooms	2	60	1,500	3,000	680
3.8	Break Out Room Storage	1	N/A	300	300	680

Space No: 1.1	Space Title:		Bookstore Office	
HEGIS Code: 310	**Area NASF:**	115	**Space Quantity:** 1	
Function:	Private office for Bookstore Manager			
Occupants:	1 persons			
Relationships:	Adjacent to Bookstore storage and near Main Floor			
Architectural	**Flooring:**	Carpet	**Base:**	Rubber
	Walls:	CMU	**Wall Finish:**	Paint
	Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
	Windows:	Preferable	**Window Treatments:**	Roller shades
	Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
	Access:	From Bookstore to back of the house	**Other:**	Sidelight
Built in Millwork	None			
Movable Furnishings	(1) L-Shaped Desk, (1) Rolling Chair- Upholstered, (2) Side Chairs, Trash Can, Recycling Bin			
Storage	(2) Lateral, Rear Credenza, Bookshelf			
Technology	Minimum of (1) "standard office" outlet for Voice/Data, Computer with Flat Screen Monitor, Phone, Printer, Electronic Card Access, Wi-Fi coverage			
Lighting	LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical	120V, 1P power receptacles for: Computers, Flat Screen Monitors, and convenience			
Mechanical	General building HVAC with dedicated temperature control zone			
Plumbing	None			
Specialized Equipment	Whiteboard, coat hook on door			

Space No: 1.2	Space Title:		PGCC Cares Office	
HEGIS Code: 310	**Area NASF:**	200	**Space Quantity:** 1	
Function:	1 Private Office; 2 hoteling stations for administration of the PGCC Cares operation			
Occupants:	3 persons			
Relationships:	Located near or adjacent to the PGCC Cares Floor space			
Architectural	**Flooring:**	Carpet	**Base:**	Rubber
	Walls:	Glass/CMU	**Wall Finish:**	Paint
	Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	10'0"
	Windows:	Preferable	**Window Treatments:**	None
	Doors:	Solid Wood	**Door Size:**	(1) 3'0" x 7'0"
	Access:	Off main lobby, direct	**Other:**	Sidelight
Built in Millwork	None			
Movable Furnishings	Each hoteling workstation with systems furniture: (1) L-Shaped Desk, (1) Rolling chair-upholstered. Within Room: trash can and recycling Bin			
Storage	Retail racks and slot wall shelving			
Technology	Minimum of (1) "standard office" outlet and (2) "standard data" outlets for Voice/Data, (3) Computers and monitors, phone, Wi-Fi coverage			
Lighting	LED Lighting Fixtures, Specialized accent for sales displays lighting in with automatic dimming control system, sensors/switches.			
Electrical	120V, 1P power receptacles for: Retail POS and convenience			
Mechanical	General building HVAC			
Plumbing	None			
Specialized Equipment	Retail POS			

Space No: 1.3	Space Title:		Bookstore Storage I	
HEGIS Code: 665	**Area NASF:**	163	**Space Quantity:** 1	
Function:	Storage of a variety of retail items including books, soft goods, class supplies, etc.			
Occupants:	N/A			
Relationships:	Adjacent to Bookstore storage and near Main Floor			
Architectural	**Flooring:**	Sealed Concrete	**Base:**	Rubber
	Walls:	CMU	**Wall Finish:**	Paint
	Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
	Windows:		**Window Treatments:**	
	Doors:	Hollow Metal and Frame	**Door Size:**	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
	Access:	From Loading Dock and to Main Floor	**Other:**	Sidelight
Built in Millwork	None			
Movable Furnishings	Storage shelving system			
Storage	Space saver storage system, Storage Shelving			
Technology	Electronic Card Access, Wi-Fi coverage			
Lighting	LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical	120V, 1P power receptacles for: Convenience			
Mechanical	General building HVAC with smoke dampers as required by code			
Plumbing	None			
Specialized Equipment	None			

Space No:	1.4	Space Title:		Bookstore Storage II	
HEGIS Code:	665	**Area NASF:**	195	**Space Quantity:** 1	
Function:		Storage of a variety of retail items including books, soft goods, class supplies, etc.			
Occupants:		N/A			
Relationships:		Adjacent to Bookstore Main Floor			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9’0”
		Windows:		**Window Treatments:**	
		Doors:	Hollow Metal and Frame	**Door Size:**	(1) 3’0” x 7’0”, (1) Overhead Door 6’0” x 10’0”
		Access:	From Loading Dock and to Main Floor	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		Storage shelving system			
Storage		Space saver storage system, Storage Shelving			
Technology		Electronic card access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC with smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.5	Space Title:	Bookstore Stock Room/Shipping & Receiving		
HEGIS Code:	665	**Area NASF:**	1,110	**Space Quantity:** 1	
Function:		Storage of retail stock for sale at Bookstore Main Floor			
Occupants:		N/A			
Relationships:		Good access to loading dock and to Bookstore Main Floor			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:		**Window Treatments:**	
		Doors:	Hollow Metal and Frame	**Door Size:**	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
		Access:	From Loading Dock and to Main Floor	**Other:**	Sidelight
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		High-density storage system, Storage Shelving			
Technology		Electronic card access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.6	Space Title:		Bookstore Office Supplies	
HEGIS Code:	665	**Area NASF:**	300	**Space Quantity:** 1	
Function:		Storage of office and retail supplies used by Bookstore staff			
Occupants:		N/A			
Relationships:		Adjacent to Stock Room, Bookstore Office and Main Floor			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:		**Window Treatments:**	
		Doors:	Hollow Metal and Frame	**Door Size:**	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
		Access:	From Loading Dock and to Main Floor	**Other:**	Sidelight
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		Wall- and floor-mounted shelving, lockable storage cabinets			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.7	Space Title:		Bookstore Main Floor	
HEGIS Code:	660	Area NASF:	6,200	Space Quantity: 1	
Function:		Primary retail area for Bookstore merchandise and sales			
Occupants:		100 persons estimated			
Relationships:		Located near a primary entrance / lobby			
Architectural		Flooring:	Carpet/Resilient	Base:	Rubber
		Walls:	Glass/CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Yes	Window Treatments:	None
		Doors:	Glass in Aluminum Frame	Door Size:	(2) 3'0" x 7'0"
		Access:	Off main lobby	Other:	
Built in Millwork		Retail shelving and display systems, Cash Wrap			
Movable Furnishings		Retail shelving and display carts			
Storage		Retail racks and slot wall shelving			
Technology		Multiple "standard data" outlets for Voice/Data, (2) Digital signage displays, (1) Large Video Wall Display, electronic card access, multiple video surveillance cameras, Wi-Fi coverage, speakers, A/V system and equipment			
Lighting		LED Lighting Fixtures, Specialized accent for sales displays lighting in with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Retail POS, and convenience, Floor boxes			
Mechanical		General building HVAC with temperature control zones by exposure. CO2 based demand control ventilation.			
Plumbing		None			
Specialized Equipment		Retail POS; Door system from corridor that can open a minimum span of 12 ft.			

Space No:	1.8	Space Title:		PGCC Cares Floor	
HEGIS Code:	665	**Area NASF:**	800	**Space Quantity:** 1	
Function:		A store for clothes and pantry food. Serves as a retail area for the sale of team and college related merchandise.			
Occupants:		8 persons			
Relationships:		Located off the main public entry lobby at the event center concourse			
Architectural		**Flooring:**	Concrete	**Base:**	Rubber
		Walls:	Glass/CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	10’0”
		Windows:	Yes	**Window Treatments:**	None
		Doors:	Glass in Aluminum Frame	**Door Size:**	(1) 3’0” x 7’0”
		Access:	Off main lobby, direct	**Other:**	
Built in Millwork		(1) 8 Lin/FT Base Cabinets, Solid Surface Countertops			
Movable Furnishings		None			
Storage		Retail racks and slot wall shelving			
Technology		Minimum of (1) “standard office” outlet and (2) “standard data” outlets for Voice/Data, (3) Computers and monitors, phone, Wi-Fi coverage			
Lighting		LED Lighting Fixtures, Specialized accent for sales displays lighting in with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Retail POS and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Retail POS			

Space No:	1.9	Space Title:		Additional Bookstore Retail/Service	
HEGIS Code:	660	Area NASF:	1,000	Space Quantity: 1	
Function:		Dedicated branded retail area (Café, Genius Bar, Cyber Lounge)			
Occupants:		20 persons estimated			
Relationships:		Located within the Bookstore Main Floor			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Glass/CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Yes	Window Treatments:	None
		Doors:	Glass in Aluminum Frame	Door Size:	N/A
		Access:	Main Floor	Other:	
Built in Millwork		Specialized and branded retail sales and display systems, counter for café and genius bar			
Movable Furnishings		Retail shelving and display carts, flexible furniture/seating (8 stools and 8 lounge chairs)			
Storage		Retail racks and slot wall shelving			
Technology		Coordinate with retail concept, Wi-Fi coverage, Digital menu display and digital genius bar display, mobile charging stations			
Lighting		LED Lighting Fixtures, Specialized accent light fixtures for sales displays, café, genius bar, cyber lounge, and designated study and social spaces lighting, automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Retail POS, and convenience, floor boxes			
Mechanical		General building HVAC with temperature control zones by exposure. CO2 based demand control ventilation.			
Plumbing		Plumbing to support food service equipment, hand sink, floor drain.			
Specialized Equipment		Retail POS and coordinated technology with retail concept			

Space No:	1.10	Space Title:		Additional Storage	
HEGIS Code:	665	Area NASF:	200	Space Quantity: 1	
Function:		Dedicated storage for branded retail concept			
Occupants:		N/A			
Relationships:		Located close to Additional Bookstore Retail/Service, Loading dock and Main Floor retail			
Architectural		Flooring:	Sealed Concrete	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Hollow Metal	Door Size:	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
		Access:	From Loading Dock and Main Floor	Other:	
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		Wall- and floor-mounted Storage Shelving			
Technology		Electronic card access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.11	Space Title:		Building Storage	
HEGIS Code:	730	Area NASF:	500	Space Quantity: 1	
Function:		Facilities Planning and Management - General storage of building supplies and equipment			
Occupants:		N/A			
Relationships:		Located along primary circulation and close to loading dock			
Architectural		Flooring:	Sealed Concrete	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	
		Doors:	Hollow Metal	Door Size:	(2) 3'-0" x 7'-0"
		Access:	Corridor	Other:	
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		Wall- and floor-mounted Storage Shelving			
Technology		Electronic card access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.12	Space Title:		Environmental Services (ES) II Supervisors	
HEGIS Code:	310	**Area NASF:**	120	**Space Quantity:** 8	
Function:		Private Office			
Occupants:		1 persons per room			
Relationships:		Adjacent to ES Open Workstations			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		N/A			
Movable Furnishings		(1) L-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, (1) White Board, Tack Board, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) "standard office" outlets for Voice/Data, Computer with Flat Screen Monitor, Printer, Phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer(s), Printer(s), Flat Screen Monitor(s), Printer, and convenience			
Mechanical		General building HVAC with dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat Hooks on door			

Space No:	1.13	Space Title:	Environmental Services (ES) I Supervisors		
HEGIS Code:	310	Area NASF:	115	Space Quantity: 4	
Function:		Private Office			
Occupants:		1 persons per room			
Relationships:		Staff grouped within the suite, adjacent to ES Open Workstations			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		N/A			
Movable Furnishings		(1) L-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, (1) White Board, Tack Board, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer with Flat Screen Monitor, Phone, Printer, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer(s), Printer(s), Flat Screen Monitor(s), and convenience			
Mechanical		General building HVAC with dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat Hooks on door			

Space No:	1.14	Space Title:		Open Workstations	
HEGIS Code:	310	Area NASF:	825	Space Quantity: 1	
Function:		12 workstations @ 40 NASF per			
Occupants:		12 persons			
Relationships:		Adjacent to ES Offices			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Service Corridor	Other:	
Built in Millwork		None			
Movable Furnishings		Each workstation within systems furniture: (1) L-Shaped Desk, (1) Rolling chair-upholstered. Within Room: Trash can, Recycling Bin, Conference Room table to seat (14), (14) conference room chairs			
Storage		None			
Technology		Minimum of (1) "standard office" outlet for each seat for Voice/Data Computer with Flat Screen Monitor, phones for each workstation, Wi-Fi coverage, projection screen and projector, AV System and Controls, Network Printer			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches in main area, and dimming lights in conference room area			
Electrical		120V, 1P power receptacles for: Computer(s), Flat Screen Monitor(s), AV equipment, Printer, and convenience			
Mechanical		General building HVAC with temperature control zones by exposure. CO2 based demand controls ventilation.			
Plumbing		None			
Specialized Equipment		Clock, Coat hooks, White Boards (10ft & 8ft), Tack Board			

Space No:	1.15	Space Title:	Environmental Services (ES) Locker Room		
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Day locker – NOT a dressing room, employees come dressed			
Occupants:		None dedicated			
Relationships:		Near Open Workstation			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel, Gypsum	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	(2) 3'0" x 7'0"
		Access:	Service Corridor	Other:	
Built in Millwork		(50) 18" x 24" x 72" Lockers, Phenolic or Metal, built in bench			
Movable Furnishings		(2) Trash Can, (1) Recycling Bin			
Storage		None			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with automatic lighting control, sensors/switches			
Electrical		120, 1P power receptacles for: convenience Motor rated switch/power to feed the exhaust fan			
Mechanical		General building HVAC with temperature control zones by exposure. CO2 based demand controls ventilation.			
Plumbing		None			
Specialized Equipment		(1) Glass marker board			

Space No:	1.16	Space Title:	Environmental Services (ES) Equipment Storage Room		
HEGIS Code:	315	**Area NASF:**	300	**Space Quantity:** 1	
Function:		Storage of equipment and uniforms			
Occupants:		N/A			
Relationships:		Located near service corridor and ES spaces			
Architectural		**Flooring:**	Sealed Concrete	**Base:**	Rubber
		Walls:	CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:		**Window Treatments:**	
		Doors:	Hollow Metal and Frame	**Door Size:**	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
		Access:	Service Corridor	**Other:**	Sidelight
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		High-density storage system, Storage Shelving			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.17	Space Title:	Environmental Services (ES) Product Supply Room		
HEGIS Code:	315	Area NASF:	150	Space Quantity: 2	
Function:		Storage of product supplies			
Occupants:		N/A			
Relationships:		Located on circulation corridor from loading area, directly adjacent to Open Workstations			
Architectural		Flooring:	Sealed Concrete	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Hollow Metal and Frame	Door Size:	(1) 3'0" x 7'0", (1) Overhead Door 6'0" x 10'0"
		Access:	Service Corridor	Other:	Sidelight
Built in Millwork		N/A			
Movable Furnishings		None			
Storage		High-density storage system, Storage Shelving			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.18	Space Title:	Environmental Services (ES) Kitchenette/Breakroom		
HEGIS Code:	315	**Area NASF:**	335	**Space Quantity:** 1	
Function:		Food preparation station and lunch and coffee area for staff			
Occupants:		8 persons			
Relationships:		Adjacent to meeting rooms and reception desk within the suite			
Architectural		**Flooring:**	Resilient	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Optional	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		(1) 12 Lin/Ft each Base Cabinet and Wall Cabinets, Solid surface Countertops			
Movable Furnishings		(2) Cafe Tables, Banquette to seat (4), (4) chairs, small White Board, Tack Board, Coffee maker, Refrigerator/Freezer, Microwave			
Storage		See Built-in Millwork			
Technology		Minimum of (1) "wall-phone" outlet for Voice/Data Wi-Fi coverage, Electronic Key Card Access, wall-phone, Time Clock			
Lighting		LED Lighting Fixtures; General and under cabinet with the automatic dimming lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Coffee maker, Refrigerator, Freezer, Microwave and convenience GFI receptacles Motor rated switch/power to feed the exhaust fan Motor rated switch/power to feed the Garbage Disposal			
Mechanical		General Building - HVAC with a dedicated temperature control zone			
Special Requirements		Provide local exhaust			
Plumbing		Sink, Floor Drains-Consider, Garbage Disposal			
Specialized Equipment		Clock			

Space No:	1.19	Space Title:		Study/Lounge Spaces	
HEGIS Code:	410	Area NASF:	1,500	Space Quantity: 1	
Function:		Student Lounge			
Occupants:		75 persons			
Relationships:		Serves as informal student gathering and study space Various noise and activity levels. Locate adjacent to primary circulation areas.			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	None	Door Size:	
		Access:	Off Circulation	Other:	
Built in Millwork		Study Counter to seat 8 students			
Movable Furnishings		Mixture of flexible and comfortable seating to sit 32 students. (4) Coffee Table, Upholstered Lounge Chairs, sofas, stools, etc.			
Storage		None			
Technology		Wi-Fi coverage, Video wall, Speakers, Digital display board			
Lighting		LED Dimmable Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Charging of personal electronics and convenience Power for dedicated mechanical unit(s)			
Mechanical		HVAC- General building HVAC with a temperature control zones by exposure.			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Clock			

Space No:	1.20	Space Title:	Collaborative Learning Classrooms		
HEGIS Code:	315	**Area NASF:**	1,215	**Space Quantity:** 5	
Function:		Classroom for lecture courses with multiple "teaching walls" modality			
Occupants:		32 persons per room			
Relationships:		Located in academic zone, direct access from student and public areas			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	Motorized shades
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Public Entrance	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		(32) Rolling Task Chairs, (16) 20" x 72" castered flip-top tables, 4' high continuous White Boards at teaching wall for full room width, and Teaching Station (lectern) with multi-media and computer devices and (1) 30" x 72" desk with task chair, Trash can, Recycling Bin			
Storage		A/V closet with rack.			
Technology		Minimum of (1) "standard teacher" outlet, (1) "wall-phone" outlet, and (1) "emergency phone" outlet for Voice/Data, Multiple flat panel displays, program audio and voice reinforcement, AV Processing equipment, Electronic Card Access, Wi-Fi coverage (density)			
Lighting		LED Dimmable Lighting Fixtures with the multi scene automatic dimming system, sensors/ switches. Coordinate lighting and controls with AV system.			
Electrical		120V, 1P power receptacles for: Student stations at table, Teacher's station floor mounted, Motorized Projection Screen, Projector, A/V equipment rack, and convenience Power for dedicated mechanical unit(s)			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		**CO2 Based demand control ventilation**			
Plumbing		None			
Specialized Equipment		Teacher's Station that requires floor electric and data connections, Motorized screen(s); Ceiling mounted projector(s) per College standards, clock			

Space No:	1.21	Space Title:	Information Commons		
HEGIS Code:	410	Area NASF:	1,500	Space Quantity: 1	
Function:		Information/Welcome desk and interactive information kiosk. Also, includes several areas with various seating styles and arrangements, open computer work stations for public and student use, library and career resource access area, police substation, etc.			
Occupants:		4 occupants at desk			
Relationships:		Locate adjacent to primary circulation area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	10'0"-16'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Glass in Aluminum Frame	Door Size:	(2) 3'0" x 7'0"
		Access:	From primary circulation	Other:	
Built in Millwork		(1) 8Lin/FT Base Cabinet (lockable) and solid surface countertops. Custom Information Desk with solid surface countertop, wood front with space for pedestals. Wall-mounted work surface for use as study spaces.			
Movable Furnishings		(4) rolling chairs, (4) lockable pedestals at Information/Welcome Desk; seating with writing surface at standing counter for (5) persons, (3) 3' diameter tables with (4) seats per table, (16) lounge and study chairs. 5 standing computer stations. Trash can / recycling bin.			
Storage		None			
Technology		Minimum of (4) "standard office" outlets, as well as (1) "standard data" outlet for each pair of workstations for Voice/Data, Digital Signage, Wi-Fi coverage, (5) student computers, (4) faculty students with double screens for each station, Large Video wall, Digital Display board, speakers, AV system			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming system, sensors/switches. Coordinate lighting and controls with AV system. Specialty Lighting at student areas.			
Electrical		120V, 1P power receptacles for: AV Equipment, and convenience			
Mechanical		Power for dedicated mechanical unit(s)			
Special Requirements		**General building HVAC with a dedicated temperature control zone**			
Plumbing		CO2 based demand control ventilation			
Specialized Equipment		None			

Space No:	1.22	Space Title:	Interactive Commons		
HEGIS Code:	670	**Area NASF:**	2,500	**Space Quantity:** 1	
Function:		Combination of traditional and video gaming			
Occupants:		75 persons estimated			
Relationships:		Prime location adjacent to active student lounge			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board and acoustical wall panels	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Yes	**Window Treatments:**	Yes
		Doors:	Glass	**Door Size:**	TBD
		Access:	Internal Suites	**Other:**	None
Built in Millwork		Lockable Base and Wall cabinets, Solid surface Countertops			
Movable Furnishings		(4) Virtual gaming areas composed of: Flat Screen monitor console with integrated computer and gaming control system and program audio, seating for 12 and coffee table. (5) traditional gaming areas composed of (1) 3' square table and (15) task chairs. (1) standard sized ping pong (table tennis) tables with wall-mounted paddle storage. (3) standard-sized pool tables with wall-mounted cue rack and cues sticks. Trash can/recycle bin. (3) Rectangle tables that can be combined to seat 12 students.			
Storage		None			
Technology		Minimum of (1) "standard data" outlet at each gaming station for Voice/Data, Computer, Flat Screen monitor and game control system at each virtual gaming area as described above, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming system (and manual override), sensors/switches			
Electrical		120V, 1P power receptacles for: Flat Screen Monitor(s), Game Control System at each virtual gaming area, and convenience			
Mechanical		**General building HVAC with a dedicated temperature control zone**			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.23	Space Title:		Multi-Purpose Room	
HEGIS Code:	670	Area NASF:	1,125	Space Quantity: 2	
Function:		Space for student dedicated multipurpose activities, seminars, dance clubs, etc.			
Occupants:		35 persons per room			
Relationships:		Located convenient to Club Spaces			
Architectural		Flooring:	Wood Floor	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	10'0"-16'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Glass	Door Size:	(2) 3'0" x 7'0"
		Access:	Corridor from locker room	Other:	
Built in Millwork		(1) 8Lin/FT Base Cabinet, Solid surface Countertops, cubbies for backpacks			
Movable Furnishings		Full height Mirrors on one wall			
Storage		Storage room to store equipment			
Technology		Minimum of (1) "standard office" outlet and (1) "standard data" outlets for Voice/Data, Projection Screen, Projector, AV processing equipment, Loudspeakers for program audio, Voice/Data, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the multi scene automatic dimming system, sensors/ switches. Coordinate lighting and controls with AV system.			
Electrical		120V, 1P power receptacles for: Projector, Projection Screen, A/V equipment and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Clock			

Space No:	1.24	Space Title:		Rennie Forum	
HEGIS Code:	610	**Area NASF:**	3,800	**Space Quantity:** 1	
Function:		Existing tiered teaching and performance space for student orientation, lectures, etc.			
Occupants:		240 persons estimated			
Relationships:		Near primary circulation			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	None	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	
Built in Millwork		None			
Movable Furnishings		Reupholster furniture, new chairs where needed			
Storage		None			
Technology		Portable speaking lectern with computer, document camera, Update cabling for Voice/Data, Dual projection screen/ projector A/V system, Electronic Card Access, Speakers, Wi-Fi coverage (density)			
Lighting		LED Dimmable Lighting Fixtures with the multi scene automatic dimming system, sensors/ switches. Coordinate lighting and controls with AV system			
Electrical		120V, 1P power receptacles for: Dual projection screen/ projector A/V system, A/V equipment, and convenience			
Mechanical		**General building HVAC with a dedicated temperature control zone**			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.25	Space Title:		Rennie Forum Support/Storage	
HEGIS Code:	615	Area NASF:	300	Space Quantity: 1	
Function:		To remain in current location			
Occupants:		N/A			
Relationships:		Located near Rennie Forum			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		None			
Movable Furnishings		None			
Storage		Adjustable wall shelving			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC with dedicated temperature control			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	1.26	Space Title:	Rennie Forum Projection Booth		
HEGIS Code:	615	**Area NASF:**	116	**Space Quantity:** 1	
Function:		Control room for A/V equipment in Rennie Forum			
Occupants:		2 persons			
Relationships:		Located near and with visibility into Rennie Forum			
Architectural		**Flooring:**	Resilient	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Observation	**Window Treatments:**	Blinds
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	From Rennie Forum Auditorium	**Other:**	
Built in Millwork		Storage integrated with A/V and IT controls			
Movable Furnishings		(2) Chairs			
Storage		Within room			
Technology		Power distribution suitable to meet current technology infrastructures, networking, and power distribution for integrated theatre audio/video communication/monitoring stations, automation, lighting, sound, rigging, special effects, and projections and all associated command and control equipment/interfaces. Lighting of space must be dimmable/with variant color/tint variations and zoned. Dedicated audio electrical power distribution isolated from all other electrical supply. Computer, phone, electronic card access, Wi-Fi coverage.			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC with dedicated temperature control			
Plumbing		**None**			
Specialized Equipment		None			

Space No:	1.27	Space Title:	Rennie Forum Green Room		
HEGIS Code:	615	Area NASF:	250	Space Quantity: 1	
Function:		Area with makeup mirror, lounge seating, clothing storage, etc.			
Occupants:		5 persons			
Relationships:		Immediately adjacent to Rennie Forum			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Wood	Door Size:	3'0" x 7'0"
		Access:	Off Circulation	Other:	
Built in Millwork		Base cabinets with (4) vanity locations with knee space, mirror			
Movable Furnishings		(2) End Tables, (1) Coffee Table, (4) Upholstered Lounge Chairs			
Storage		Closet with 5' clothes rod and shelf			
Technology		Minimum of (1) "standard data" outlet for Voice/Data Clock, Flat Screen Display, Loudspeaker with feed from ballroom, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming lighting control sensors/switches.			
Electrical		120, 1P power receptacles for: Convenience and charging personal electronics devices/equipment			
Mechanical		Power for dedicated mechanical unit(s)			
Plumbing		General building HVAC with a dedicated temperature control zone			
Specialized Equipment		Clock			

Space No:	1.28	Space Title:		Rennie Forum Toilet	
HEGIS Code:	615	**Area NASF:**	50	**Space Quantity:** 1	
Function:		Gender-neutral Toilet room for use by Green Room occupants			
Occupants:		N/A			
Relationships:		Access from Green Room			
Architectural		**Flooring:**	Ceramic Tile	**Base:**	Ceramic Tile
		Walls:	Ceramic Tile	**Wall Finish:**	Ceramic Tile
		Ceiling:	Gypsum Wall	**Min. Ceiling Ht:**	9'0" Min.
		Windows:	None	**Window Treatments:**	None
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Public Entrance	**Other:**	
Built in Millwork		None			
Movable Furnishings		Mirror, (1) Trash cans			
Storage		None			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120, 1P power receptacles for: Convenience and charging personal electronics devices/equipment			
Mechanical		12ACH Exhaust, Use transfer air for exhaust			
Special Requirements		Provide Local exhaust			
Plumbing		(1) Water closet, (1) Urinal, (1) Lavatory and floor drain			
Specialized Equipment		Hand dryers			

Space No:	2.1	Space Title:	Faculty/Staff Lounge/Training Room		
HEGIS Code:	630	Area NASF:	800	Space Quantity: 1	
Function:		Meeting room and lounge space for faculty/staff			
Occupants:		30 persons			
Relationships:		Prime location within the administrative suite and adjacent to the main public reception area			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		(1) 8 Lin/Ft of Base Cabinet and Wall Cabinet, Solid surface Countertops			
Movable Furnishings		(30) Dining Chairs, (15) flexible 2-person tables, (2) sofas, (5) lounge chairs, Trash Can, Recycling Bin			
Storage		None			
Technology		Minimum of (1) "standard office" outlet and (1) "standard data" outlet for Voice/Data, Flat screen monitor for presentations, loudspeakers for program audio, A/V processing equipment with controls, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Pendant Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Flat Screen Monitor, AV Equipment and convenience.			
Mechanical		Power for dedicated mechanical unit(s)			
Special Requirements		General building HVAC with a dedicated temperature control zone			
Plumbing		CO2 based demand control ventilation			
Specialized Equipment		Flat screen monitor for presentations, loudspeakers for program audio, A/V system with controls			

Space No:	2.2	Space Title:		Seating	
HEGIS Code:	630	**Area NASF:**	4,061	**Space Quantity:** Various	
Function:		Dining and study			
Occupants:		250 persons estimated			
Relationships:		Locate adjacent to Servery			
Architectural		**Flooring:**	Resilient	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Yes	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	
Built in Millwork		Banquettes in combination with seating described below to achieve 250 seated locations. Eating counter for (25)			
Movable Furnishings		250 seats (Includes: standard height, hi-top mix, stackable dining chairs, banquettes, bar seats, etc.) with a variety of dining tables & styles for various group sizes and flexibility.			
Storage		AV Closet to place AV Equipment			
Technology		Clocks, Wi-Fi coverage (density), Digital Video Wall, (2) Digital Signage Displays, Speakers, AV Equipment			
Lighting		LED Dimmable Decorative Lighting Fixtures with the multi scene automatic dimming system, Specialized Light fixtures for varying seating atmospheres, sensors/switches.			
Electrical		120V, 1P power receptacles for: AV Equipment, Convenience			
Mechanical		Power for dedicated mechanical unit(s)			
Special Requirements		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Clocks			

Space No:	2.3	Space Title:		Servery	
HEGIS Code:	635	Area NASF:	1,800	Space Quantity:	
Function:		Where kitchen staff display/serve food to customers. Includes point of sale (POS) stations			
Occupants:		N/A			
Relationships:		Immediately adjacent to kitchen and dining areas			
Architectural		Flooring:	Resilient	Base:	None
		Walls:	Gypsum Wall Board	Wall Finish:	Ceramic Tile
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	(2) 3'0" x 7'0"
		Access:	Overhead coiling grill to Dining	Other:	
Built in Millwork		Back Service Counter, Stainless Steel Countertops, Front counter to be Granite or heat resistant Composite Material to accommodate food service equipment			
Movable Furnishings		None			
Storage		None			
Technology		Minimum of (1) "standard data" outlet at each POS station for Voice/Data, Wi-Fi coverage, Digital Menu Boards			
Lighting		LED Lighting Fixtures, accent lighting in coordination with displays with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Fixed and mobile cart locations to facilitate flexible layout, Ice maker, and convenience. Provide GFI protection device at sink.			
Mechanical		General Building HVAC dedicate VAV Box with dedicate temperature control			
Special Requirements		CO2 Based demand control ventilation			
Plumbing		(1) Hand Sink, (1) Triple Sink, Floor Drains for Ice Makers, filtered domestic supply to ice makers, Internal Grease Interceptor, coordinate with food service equipment			
Specialized Equipment		Food Service Equipment			

Space No:	2.4	Space Title:		Prep and Kitchen	
HEGIS Code:	635	Area NASF:	1,200	Space Quantity: 1	
Function:		Food preparation			
Occupants:		N/A			
Relationships:		Convenient to food storage areas, immediately adjacent to Servery			
Architectural		Flooring:	Quarry Tile	Base:	None
		Walls:	CMU	Wall Finish:	Ceramic Tile to 5' high, epoxy paint above
		Ceiling:	Acoustic Panel, Gypsum Wall	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	(1) 3'0" x 7'0"
		Access:		Other:	
Built in Millwork		Front and Back Service Counter, Stainless Steel Countertops, Front counter to accommodate food service equipment, POS System			
Movable Furnishings		Food service equipment			
Storage		Within food service equipment or as separately programmed			
Technology		Minimum of (1) "standard data" outlet at each POS station for Voice/Data, Wi-Fi coverage POS System			
Lighting		LED Lighting Fixtures General and task with 70 fc at working surfaces with automatic lighting control sensors/switches.			
Electrical		120V, 1P power receptacles for: Food/Order Monitors			
Mechanical		120V, 208V, 1P, 3P for: Food service equipment power, multiple GFI outlets for food service support, Shunt trip relay on power to equipment below hoods			
Special Requirements		Power for dedicated mechanical unit(s)			
Plumbing		(1) Hand Sink, Floor Drains, Hose Bib, Mop sink			
Specialized Equipment		Food Service equipment, Soap & Paper Towel Dispenser			

Space No:	2.5	Space Title:		Branded Concept	
HEGIS Code:	630	Area NASF:	1,500	Space Quantity: 1	
Function:		Dedicated kitchen/prep and server space for outside vendor of national brand			
Occupants:		6-10 Persons			
Relationships:		Convenient to event center seating, queuing can be shared with concourse circulation, adjacent to holding/storage room			
Architectural		Flooring:	Quarry Tile	Base:	None
		Walls:	CMU	Wall Finish:	Ceramic Tile
		Ceiling:	Acoustic Metal Panel, Gypsum Wall Board	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	(1) 3'0" x 7'0"
		Access:	Overhead coiling grill	Other:	
Built in Millwork		Back Service Counter, Stainless Steel Countertops, Front counter to be Granite or heat resistant Composite Material to accommodate food service equipment or as required by Branded Concept			
Movable Furnishings		TBD			
Storage		See Built-in Millwork			
Technology		(2) TV Monitors as menu boards, Wi-Fi coverage			
Lighting		LED Lighting Fixtures General, task with 70 fc at working surfaces and accent lighting at the front counter with automatic lighting control sensors/switches.			
Electrical		120V, 1P power receptacles for: (2) TV Monitors, Menu Boards			
Mechanical		120V, 208V, 1P, 3P for: Food service equipment power, multiple GFI outlets for food service support, Shunt trip relay on power to equipment below hoods			
Special Requirements		Power for dedicated mechanical unit(s)			
Plumbing		Served from support area air handling unit with General building HVAC with a dedicated temperature control zone			
Specialized Equipment		Provide kitchen exhaust hood			

Space No:	2.6	Space Title:		Dish Wash	
HEGIS Code:	635	Area NASF:	400	Space Quantity: 1	
Function:		Dishwashing			
Occupants:		N/A			
Relationships:		Convenient to Servery / Dining areas			
Architectural		Flooring:	Quarry Tile	Base:	None
		Walls:	CMU	Wall Finish:	Ceramic Tile
		Ceiling:	Acoustic Panel, Gypsum Wall	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Hollow Metal	Door Size:	(1) 3'0" x 7'0"
		Access:	Overhead coiling grill	Other:	
Built in Millwork		TBD			
Movable Furnishings		TBD			
Storage		See Built-in Millwork			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures General, task with 70 fc at working surfaces and accent lighting at the at front counter with automatic lighting control sensors/switches.			
Electrical		120V, 1P power receptacles for: Equipment and convenience			
Mechanical		120V, 208V, 1P, 3P for: Food service equipment power, multiple GFI outlets for food service support, Shunt trip relay on power to equipment below hoods			
Special Requirements		Power for dedicated mechanical unit(s)			
Plumbing		(1) Hand Sink, Floor Drains, Hose Bib, Mop sink, Connections as required to commercial dishwasher machine and two compartment sink			
Specialized Equipment		Food Service equipment, Soap & Paper Towel Dispenser			

Space No:	2.7	Space Title:		Dry Storage	
HEGIS Code:	635	Area NASF:	800	Space Quantity: 1	
Function:		Provides a location for the storage of concessions food products and swing equipment			
Occupants:		N/A			
Relationships:		Located adjacent to food pantry and adjacent to kitchens			
Architectural		Flooring:	Epoxy	Base:	None
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"
		Access:	Direct from loading areas	Other:	Access from loading dock
Built in Millwork		None			
Movable Furnishings		None			
Storage		None			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Special Requirements		Power for dedicated mechanical unit(s)			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.8	Space Title:	Walk-in Coolers/Freezer		
HEGIS Code:	635	**Area NASF:**	800	**Space Quantity:** 1	
Function:		Provides a location for the storage of concessions food products and swing equipment			
Occupants:		N/A			
Relationships:		Located adjacent to food pantry and adjacent to kitchens			
Architectural		**Flooring:**	Recess in floor for insulated panels	**Base:**	None
		Walls:	None – walls part of food service equipment	**Wall Finish:**	None
		Ceiling:	None – ceiling part of food service equipment	**Min. Ceiling Ht:**	10'0"
		Windows:	None	**Window Treatments:**	None
		Doors:	Hollow Metal	**Door Size:**	(2) 3'0" x 7'0"
		Access:	Direct from loading area	**Other:**	Access from loading dock
Built in Millwork		TBD			
Movable Furnishings		TBD			
Storage		N/A			
Technology		None			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Walk-in Cooler/Freezer, Heat trace line, and Convenience			
Mechanical		General Building HVAC			
Special Requirements		Power for dedicated mechanical unit(s)			
Plumbing		Floor drain for condensate adjacent to walk-in location			
Specialized Equipment		None			

Space No:	2.9	Space Title:	Catering Kitchen		
HEGIS Code:	635	Area NASF:	500	Space Quantity: 1	
Function:	Serves as the staging location for banquet food prepared off site and held here for service. Provides limited level of support for the concessions, including ice production and beverage holding and chilling. Cold beverages are stored in the walk-in refrigerator. Ice is transported to the concessions, and stored there, in mobile ice carts that are filled directly by the ice production equipment located in this space. No direct food production is anticipated.				
Occupants:	N/A				
Relationships:	Convenient to event level floor. Near Main Kitchen.				
Architectural	Flooring:	Quarry Tile	Base:	None	
	Walls:	CMU	Wall Finish:	Ceramic Tile to 60", epoxy paint above	
	Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"	
	Windows:	None	Window Treatments:	None	
	Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"	
	Access:	Direct from loading area and event floor for serving	Other:	Vision Panels	
Built in Millwork	TBD				
Movable Furnishings	TBD				
Storage	Within Space				
Technology	Minimum of (1) "standard office" outlet, (1) "standard data" outlet, (1) "wall-phone" outlet for Voice/Data, Wi-Fi coverage, Phone				
Lighting	LED Lighting Fixtures with the automatic lighting control sensors/switches				
Electrical	120V/208V, 1P, 3P power receptacles for: Fixed/ Cart equipment, Ice makers, and Convenience				
Mechanical	General Building HVAC				
Plumbing	(1) Hand Sink, (1) Triple Sink, Floor Drains for Ice Makers, Filtered domestic supply to ice makers, Internal Grease Interceptor				
Specialized Equipment	Food Service Equipment, Soap & Paper Towel Dispenser				

Space No:	2.10	Space Title:	Catering Equipment Storage		
HEGIS Code:	635	Area NASF:	400	Space Quantity: 1	
Function:		Provides a location for the storage of concessions food products and swing equipment			
Occupants:		N/A			
Relationships:		Located adjacent to food pantry and adjacent to kitchens			
Architectural		Flooring:	Epoxy	Base:	None
		Walls:	CMU	Wall Finish:	Epoxy Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"
		Access:	Direct from loading area	Other:	Access from loading dock
Built in Millwork		None			
Movable Furnishings		Storage shelving systems			
Storage		Within space			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Special Requirements		Smoke dampers as required by code.			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.11	Space Title:	Plating Room		
HEGIS Code:	635	Area NASF:	400	Space Quantity: 1	
Function:	Serves as the staging location for banquet food prepared off site and held here for service. Provides limited level of support for the concessions, including ice production and beverage holding and chilling. Cold beverages are stored in the walk-in refrigerator. Ice is transported to the concessions, and stored there, in mobile ice carts that are filled directly by the ice production equipment located in this space. No direct food production is anticipated.				
Occupants:	N/A				
Relationships:	Located adjacent to or near the Ballroom Convenient to event level floor. Adjacent to Kitchen Storage				
Architectural	Flooring:	Epoxy	Base:	None	
	Walls:	CMU	Wall Finish:	Epoxy Paint	
	Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10’0”	
	Windows:	None	Window Treatments:	None	
	Doors:	Hollow Metal	Door Size:	(2) 3’0” x 7’0”	
	Access:	Direct from loading area and event floor for serving	Other:	Vision Panels	
Built in Millwork	TBD				
Movable Furnishings	TBD				
Storage	N/A				
Technology	Wi-Fi coverage				
Lighting	LED Lighting Fixtures with the automatic sensors/switches				
Electrical	120V/208V, 1P, 3P power receptacles for: Fixed/ Cart equipment, Ice makers, and Convenience				
Mechanical	General Building HVAC				
Plumbing	(1) Hand Sink, (1) Triple Sink, Floor Drains for Ice Makers, Filtered domestic supply to ice makers, Internal Grease Interceptor				
Specialized Equipment	Food Service Equipment				

Space No:	2.12	Space Title:	Food Services Offices		
HEGIS Code:	635	Area NASF:	110	Space Quantity: 3	
Function:		Office space for staff to manage and schedule the Event Center			
Occupants:		1 person per room			
Relationships:		Located adjacent to kitchen with public access			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Preferable	Window Treatments:	Roller shades
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	Sidelight
Built in Millwork		(1) P-Shaped Desk, (1) Rolling Chairs- Upholstered, (2) Side Chairs, Trash Can, Recycling Bin			
Movable Furnishings		(2) Lateral, Rear Credenza, Bookshelf			
Storage		Minimum of (1) "standard office" outlet for Voice/Data, Wi-Fi coverage Computer with Flat Screen Monitor, phone, printer			
Technology		LED Lighting Fixtures, sensors/switches			
Lighting		120V, 1P power receptacles for: Computer(s), Flat Screen Monitor(s), TV Monitor, and convenience			
Electrical		General Building HVAC with dedicated temperature control zone			
Mechanical		None			
Plumbing		None			
Specialized Equipment		Food Service Equipment			

Space No:	2.13	Space Title:	Food Service Locker Room and Toilet		
HEGIS Code:	635	Area NASF:	200	Space Quantity: 1	
Function:		Open Locker room for general Use-Male & Female w/ Associated uni-sex toilet			
Occupants:		6 persons			
Relationships:		Adjacent to Kitchen			
Architectural		Flooring:	VCT	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel, Gypsum	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"
		Access:	Service Corridor	Other:	
Built in Millwork		(50) 18" x 18" x 72" Lockers, Phenolic or Metal, built in bench			
Movable Furnishings		(1) Trash Can, Recycling Bin, Bench			
Storage					
Technology		Wi-Fi coverage			
Lighting		LED Dimmable Accent Downlight Fixtures with automatic dimming control system, sensors/ switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		Motor rated switch/power to feed the exhaust fan			
Plumbing		Sink, lavatory and floor drain			
Specialized Equipment		Glass markerboard			

Space No:	2.14	Space Title:		Cash Room	
HEGIS Code:	635	Area NASF:	200	Space Quantity: 1	
Function:		A securable room for storage of cash proceeds from points of sale			
Occupants:		N/A			
Relationships:		Near server and branded concept			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	No	Window Treatments:	No
		Doors:	Hollow Metal	Door Size:	3'0" x 7'0"
		Access:	From internal food service area	Other:	
Built in Millwork		TBD			
Movable Furnishings		TBD			
Storage		Within space			
Technology		Minimum of (1) "standard office" outlet for Voice/Data (1) Computer, (1) Monitor, Phone, Electronic card access, Wi-Fi coverage, Camera/video surveillance			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Safe			

Space No:	2.15	Space Title:	Food Service Break Room		
HEGIS Code:	635	Area NASF:	195	Space Quantity: 1	
Function:		Meeting room and lounge space for staff			
Occupants:		10 persons			
Relationships:		Adjacent to Food Service offices and Main Kitchen			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:		Other:	Sidelight
Built in Millwork		(1) 8 Lin/Ft each Base Cabinet, (1) 8 Lin/Ft each Wall Cabinet, Solid surface Countertops, Eating counter			
Movable Furnishings		(1) Table to hold 6 people, (6) chairs, Trash Can, Recycling Bin, Coffee maker, Refrigerator, Freezer, Microwave, 5 bar stools			
Storage		Within space			
Technology		Minimum of (1) "wall-phone" outlet, (1) "standard data" outlet for Voice/Data, Wi-Fi Coverage, wall-phone, Electronic Card Access			
Lighting		LED Pendant Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Coffee maker, Refrigerator, Freezer, Microwave and convenience GFI receptacles Power for dedicated mechanical unit(s)			
Mechanical		General building HVAC with a dedicated temperature control zone., CO2 based demand control ventilation			
Plumbing		1 Hand Sink			
Specialized Equipment		Soap and Paper Towel Dispenser, Whiteboard			

Space No:	2.16	Space Title:		Vending	
HEGIS Code:	660	Area NASF:	60	Space Quantity: 2	
Function:		Area to house general use vending machines and microwaves			
Occupants:		N/A			
Relationships:		Close to and off the main lobby area			
Architectural		Flooring:	Epoxy Painted Flooring	Base:	None
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel, Gypsum Wall	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Off building lobby and main corridor	Other:	
Built in Millwork		Counter to support two microwaves			
Movable Furnishings		N/A			
Storage		N/A			
Technology		N/A			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming system, sensors/switches			
Electrical		120V, 1P power receptacles for: 2 microwaves, and 3 vending machines			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Microwaves			

Space No:	2.17	Space Title:		Market/Maker Space	
HEGIS Code:	680	Area NASF:	1,500	Space Quantity: 1	
Function:		Flexible, multi-purpose space for use			
Occupants:		N/A			
Relationships:		Adjacent to second floor primary circulation area			
Architectural		Flooring:	Resilient Flooring	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Optional	Window Treatments:	Yes
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	None
Built in Millwork		Minimum of (1) “standard office” outlets and (1) “standard data” outlet for each workstation for Voice/Data, for each tabletop: (1) Computer and (1) Flat Screen Monitor. Elsewhere in the room: (1) Printer, Phone, Wi-Fi coverage, Electronic Card Access, Projection Screen, Projector, Loudspeakers, AV Equipment			
Movable Furnishings		LED Dimmable Lighting Fixtures with the automatic dimming system, sensors/switches			
Storage		120V, 1P power receptacles for: Overhead access to power to tabletops - Computer, Flat Screen Monitor also provide control switch for overhead equipment access; Printer, Projector, Projection Screen, AV Equipment, and convenience			
Technology		Power for dedicated mechanical unit(s)			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printers, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		(1) Printer, Phone, Wi-Fi Capable, Electronic Key Card Access, Projection Screen, Projector, Loudspeakers, AV Equipment			

Space No:	2.18	Space Title:	Director, Aux Services and Events Office		
HEGIS Code:	310	Area NASF:	150	Space Quantity: 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Staff grouped within the suite, adjacent to an administration assistant			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (4) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer with Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		None			
Plumbing		Coat hooks on back of door, White Board, Tack Board			
Specialized Equipment		(1) Printer, Phone, Wi-Fi Capable, Electronic Key Card Access, Projection Screen, Projector, Loudspeakers, AV Equipment			

Space No:	2.19	Space Title:	Manager, Events Scheduling and Operations Office		
HEGIS Code:	310	Area NASF:	130	Space Quantity: 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Yes	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printers, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, White board			

Space No:	2.20	Space Title:	Coordinator, Events Scheduling and Operations Office		
HEGIS Code:	310	**Area NASF:**	115	**Space Quantity:** 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	Yes
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(1) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer with Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat Hooks on back of door			

Space No:	2.21	Space Title:	Activities Program Assistant Office		
HEGIS Code:	310	Area NASF:	115	Space Quantity: 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (1) Side Chair, Trash Can, Recycling Bin			
Storage		(1) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer with Flat Screen Monitor, Printer, Clock, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door			

Space No:	2.22	Space Title:		Manager, Events Office	
HEGIS Code:	310	Area NASF:	130	Space Quantity: 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Yes	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer with Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, White board			

Space No:	2.23	Space Title:	Events Scheduling FT Staff Office		
HEGIS Code:	310	Area NASF:	115	Space Quantity: 2	
Function:		Private Office			
Occupants:		1 persons per room			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer with Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer, Flat Screen Monitor, Printers, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, White board			

Space No:	2.24	Space Title:	Aux Services and Event Management - Student Worker/Intern Office		
HEGIS Code:	310	**Area NASF:**	120	**Space Quantity:** 1	
Function:		Private Office			
Occupants:		3 persons			
Relationships:		Staff grouped within the suite, adjacent to welcoming area			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		3 hoteling workstations each with: (1) Rolling Chair-Upholstered			
Storage		(1) Lateral, Bookshelf			
Technology		Minimum of (4) “standard office” outlets for Voice/Data, (3) Computer with Flat Screen Monitor, (3) Phones, (1) Printer, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: TV Monitor, Computer with Flat Screen Monitor, Printers, and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, Freestanding coat hook			

Space No:	2.25	Space Title:	Aux Services and Event Management - Open Area/Receptionist Office/ Welcome Area		
HEGIS Code:	310	Area NASF:	320	Space Quantity: 1	
Function:		Open Space for 4 workstations @ 60 NASF per & waiting area to accommodate 8 @ 25 NASF per			
Occupants:		4 persons			
Relationships:		Adjacent to Auxiliary Services and Events Management Offices			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Public	Other:	
Built in Millwork		None			
Movable Furnishings		(3) systems furniture workstations each with: (1) L-Shaped Desk, (1) Rolling desk chair, Trash can, Recycling bin, (1) open workstation with (1) L-Shaped desk, (1) Rolling Desk Chair, Trash can. Waiting area with: (2) End Tables, (1) Coffee Table, (8) Upholstered guest chairs			
Storage		(1) Lateral for each workstation			
Technology		Minimum of (4) “standard office” outlets for Voice/Data, For each workstation: Computer with Flat Screen Monitor, Phone, Wi-Fi Capable Electronic Key-Card Access. Additionally, (1) Network Printer, Wi-Fi coverage, Digital display			
Lighting		LED Dimmable Lighting Fixtures, Specialized accent and spot lighting in coordination with displays and graphics with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: TV Monitor(s), Computer(s), Flat Screen Monitor(s), Network Printer, Digital display and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Clock, Freestanding Coat Hook			

Space No:	2.26	Space Title:	Mail/Copier/Fax/Office Supplies Storage		
HEGIS Code:	315	**Area NASF:**	200	**Space Quantity:** 1	
Function:		Storage, Mail, Copier, Fax, Office Supplies			
Occupants:		N/A			
Relationships:		Located within the suite, adjacent to administrative area			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	None	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	
Built in Millwork		Lockable base cabinets and solid surface countertops. Wall-mounted cubby-styled mailboxes			
Movable Furnishings		(1) Trash/ Recycling can, Work Table for two, (2) chairs			
Storage		(2) Lateral, Shelves, & Cabinets to store office supplies			
Technology		Minimum of (1) “standard office” outlet and (2) “standard data” outlets for Voice/Data, Phone, Network Printer/Copier, Electronic Card Access, Wi-Fi Coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Network Printer/Copy, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		Dedicated exhaust at copier(s)			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.27	Space Title:	Aux Services and Event Management - Conference Room		
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Storage, Mail, Copier, Fax, Office Supplies			
Occupants:		10 Persons			
Relationships:		Located within the suite, adjacent to administrative area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		Lockable Base Cabinets, Solid surface Countertops			
Movable Furnishings		(10) Conference Table Chairs, (1) Conference Table, (1) Trash can, Recycling bin			
Storage		None			
Technology		Minimum of (1) “standard office” outlet and (1) “standard data” for Voice/Data, Projector, Projector Screen, Wi-Fi Coverage, Electronic Card Access, Loudspeakers for program sound, AV Processing Equipment			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming lighting control sensors/switches. Coordinate lighting and controls with AV system.			
Electrical		120V, 1P power receptacles for: AV Equipment and convenience.			
Mechanical		Power for dedicated mechanical unit(s), Floor box for conference table			
Special Requirements		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		White board, Tack board			

Space No:	2.28	Space Title:	Aux Services and Events Management - Kitchenette/Breakroom		
HEGIS Code:	315	**Area NASF:**	125	**Space Quantity:** 1	
Function:		Food preparation station to serve conference and meeting room within the Events suite, will also serve as lunch and coffee area for staff/faculty			
Occupants:		4 persons			
Relationships:		Adjacent to meeting rooms and reception desk within the suite			
Architectural		**Flooring:**	Resilient	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	Yes
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		(1) 8 Lin/Ft of Base and Wall Cabinets, Solid surface Countertops, Countertop for sitting four people			
Movable Furnishings		Coffee maker, Refrigerator/Freezer, Microwave, (4) stools			
Storage		See Built-in Millwork			
Technology		Minimum of (1) “wall-phone” outlet for Voice/Data Wi-Fi Capable, Electronic Card Access, wall-phone			
Lighting		LED Dimmable Lighting Fixtures; General and under cabinet with the automatic dimming lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Coffee maker, Refrigerator, Freezer, Microwave and convenience GFI receptacles			
Mechanical		Motor rated switch/power to feed the exhaust fan			
Special Requirements		Provide local exhaust			
Plumbing		Sink with garbage disposal, floor drains			
Specialized Equipment		None			

Space No:	2.29	Space Title:		Small Group Rooms	
HEGIS Code:	410	Area NASF:	120	Space Quantity: 6	
Function:		Private and/or semi-private group study and project space			
Occupants:		6 persons			
Relationships:		Locate close to student lounge area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(1) Table for six and 6 upholstered task chairs with casters			
Storage		None			
Technology		Minimum of (1) “standard data” outlet for Voice/Data, and AV controls to interface with user smart equipment, Electronic Key-Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures, with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Monitor, equipment and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone.			
Plumbing		None			
Specialized Equipment		White board			

Space No:	2.30	Space Title:	Ticket/Transaction Windows		
HEGIS Code:	660	**Area NASF:**	100	**Space Quantity:** 1	
Function:		Private and/or semi-private group study and project space			
Occupants:		2 persons			
Relationships:		Locate close to student lounge area			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board on CMU	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Ticket Windows – 2 Exterior, 1 Interior	**Window Treatments:**	Coiling Security/ Roller shades
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Public Entrance	**Other:**	Sidelight
Built in Millwork		(1) 12 Lin/FT Base Cabinet, Solid Surface Countertops			
Movable Furnishings		(3) Counter Height Stools, (2) Trash Can, Recycling bin			
Storage		See Built-in Millwork			
Technology		Minimum of (3) "standard office" outlets for Voice/Data, (3) Computers with Flat Screen monitors, Wi-Fi coverage, Phones, Electronic Card Access, Cameras/video surveillance			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: (3) Computers, (3) Flat Screen Monitors, Panic Button, and convenience Power for dedicated mechanical unit(s)			
Mechanical		General building HVAC with a dedicated temperature control zone., Accommodate ticket processing computer heat load			
Plumbing		None			
Specialized Equipment		Retail POS, Panic button			

Space No:	2.31	Space Title:		Ticket Cash Room	
HEGIS Code:	665	Area NASF:	100	Space Quantity: 1	
Function:		Private and/or semi-private group study and project space			
Occupants:		N/A			
Relationships:		Locate close to student lounge area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board on CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Ticket/Transaction	Other:	Sidelight
Built in Millwork		(1) 8Lin/FT Base Cabinet, Solid Surface Countertops			
Movable Furnishings		(3) Counter Height Stools, (2) Trash Can, Recycling Bin			
Storage		See Built-in Millwork			
Technology		Minimum of (1) "standard office" outlet for Voice/Data (1) Computer, (1) Monitor, Phone, Electronic card access, Wi-Fi coverage, Camera/video surveillance			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: (1) Ticket processing Computer, (1) Flat Screen Monitor, Panic Button, and convenience			
Mechanical		Power for dedicated mechanical unit(s)			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.32	Space Title:		Ticket Office	
HEGIS Code:	665	Area NASF:	115	Space Quantity: 1	
Function:		Office space for staff to manage and schedule the Event Center			
Occupants:		1 persons			
Relationships:		Located adjacent to Ticket/Transaction, Open Office			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board on CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Ticket/Transaction	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) L-Shaped Desk, (1) Rolling Chairs- Upholstered, (2) Side Chairs, Trash Can, Recycling bin			
Storage		(1) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (2) "standard office" outlets for Voice/Data, Computer with Flat Screen Monitor, Phone, Electronic card access, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures, Specialized accent Lighting Fixtures for sales and displays with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Computer and convenience			
Mechanical		General Building HVAC			
Plumbing		None			
Specialized Equipment		Securable with video surveillance, Panic button			

Space No:	2.33	Space Title:		ATM	
HEGIS Code:	660	Area NASF:	60	Space Quantity: 1	
Function:		Kiosk for public use			
Occupants:		N/A			
Relationships:		Good public access; securable with video surveillance. Located adjacent to Ticket office with public access from lobby / primary circulation.			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		None			
Storage		None			
Technology		Minimum of (1) "standard data" outlet for Data, Video camera			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120/208V, 1P power receptacles for: ATM, and convenience			
Mechanical		General Building - HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.34	Space Title:		Study/Lounge Spaces	
HEGIS Code:	410	**Area NASF:**	1,500	**Space Quantity:** 3	
Function:		Student Lounge			
Occupants:		75 persons estimated			
Relationships:		Serves as informal student gathering and study space Various noise and activity levels. Locate adjacent to primary circulation areas.			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Yes	**Window Treatments:**	
		Doors:	Glass	**Door Size:**	3'0" x 7'0"
		Access:	Off Circulation	**Other:**	
Built in Millwork		None			
Movable Furnishings		Seating for 25 students to include furniture such as: upholstered lounge chairs, study pods, booths, reclining chairs to sleep and rest between classes, etc.			
Storage		None			
Technology		Video camera, Wi-Fi coverage, charging stations			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120/208V, 1P power receptacles for: ATM, and convenience			
Mechanical		General Building - HVAC			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.35	Space Title:		Nursing Room	
HEGIS Code:	635	Area NASF:	100	Space Quantity: 1	
Function:		Safe and secure space to support nursing mothers			
Occupants:		Building occupants and the public			
Relationships:		General accessibility for building occupants and campus community			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	Sidelight
Built in Millwork		(1) 4 Lin/FT Base Cabinet, (1) 4Lin/FT Wall Cabinet, Solid surface Countertop			
Movable Furnishings		Refrigerator, soft lounge chair, table			
Storage		None			
Technology		Clock, Wi-fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Refrigerator, and convenience			
Mechanical		General building HVAC with dedicated temperature control zone			
Plumbing		Convenience sink/drain			
Specialized Equipment		Label maker			

Space No:	2.36	Space Title:	Program Director, Student Engagement and Leadership Office		
HEGIS Code:	310	**Area NASF:**	150	**Space Quantity:** 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Locate adjacent to Student Engagement and FT Staff Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Yes	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling chair, (3) Side Chairs, Trash Can, Recycling bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic card access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer with Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, White board, Tack board			

Space No:	2.37	Space Title:	Program Director, Student Life Office		
HEGIS Code:	310	Area NASF:	150	Space Quantity: 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Locate adjacent to Student Engagement and FT Staff Offices			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Yes	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling chair, (3) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) "standard office" outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer with Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door, White board, Tack board			

Space No:	2.38	Space Title:	Manager, Student Engagement Office		
HEGIS Code:	310	**Area NASF:**	130	**Space Quantity:** 1	
Function:		Private Office			
Occupants:		1 persons			
Relationships:		Locate adjacent to Student Life, Student Engagement and FT Staff Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Yes	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer with Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat Hooks on back of door, White board			

Space No:	2.39	Space Title:	Student Engagement FT Staff Office		
HEGIS Code:	310	Area NASF:	115	Space Quantity: 4	
Function:		Private Offices			
Occupants:		1 persons per room			
Relationships:		Staff grouped within the suite, adjacent to an administration assistant			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Yes	Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(1) P-Shaped Desk, (1) Rolling chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		(2) Lateral, Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data, Computer, Flat Screen Monitor, Printer, phone, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Computer with Flat Screen Monitor, Printer, and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hooks on back of door			

Space No:	2.40	Space Title:	Student Engagement - Shared Offices		
HEGIS Code:	310	**Area NASF:**	230	**Space Quantity:** 3	
Function:		Private space for 2 workstations			
Occupants:		2 persons per room			
Relationships:		Locate adjacent to Student Engagement and FT Staff Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustic Panel	**Min. Ceiling Ht:**	10'0"
		Windows:	Desirable	**Window Treatments:**	Yes
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Public Entrance	**Other:**	
Built in Millwork		None			
Movable Furnishings		(2) L-Shaped Desk, (2) Rolling task Chair-Upholstered, (2) Side Chairs, Trash can, Recycling bin			
Storage		(2) Lateral, (2) Rear Credenza, (2) Bookshelf			
Technology		Minimum of (2) “standard office” outlet for Voice/Data, (2) Computer with Flat Screen Monitor, (2) phones, (1) printer, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic sensors/switches			
Electrical		120V, 1P power receptacles for: Computer(s), Printer, and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Freestanding coat hook			

Space No:	2.41	Space Title:	Student Engagement - Student Worker/Intern Office		
HEGIS Code:	310	Area NASF:	150	Space Quantity: 1	
Function:		Open Space for 3 workstations @ 40 NASF per			
Occupants:		3 persons per room			
Relationships:		Locate adjacent to Student Engagement and FT Staff Offices			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(3) hoteling stations, (3) Rolling Chair-Upholstered, Trash can, Recycling bin, Printer stand			
Storage		(1) Lateral			
Technology		Minimum of (3) “standard office” outlets for Voice/Data, (3) Computers with Flat Screen Monitor, (3) phones, (1) Network Printer, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic sensors/switches			
Electrical		120V, 1P power receptacles for: Computer(s), Flat Screen Monitor(s), Network Printer, and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		Freestanding coat hook			

Space No:	2.42	Space Title:	Student Engagement - Open Area/Receptionist Office		
HEGIS Code:	310	**Area NASF:**	490	**Space Quantity:** 1	
Function:		Space for 4 workstations @ 60 NASF per & waiting area to accommodate 10 @ 25 NASF per			
Occupants:		4 persons excluding visitors			
Relationships:		Entry from primary corridor. Adjacent to Student Engagement and Leadership Offices			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	10'0"
		Windows:	Desirable	**Window Treatments:**	Yes
		Doors:	Glass	**Door Size:**	3'0" x 7'0"
		Access:	Public	**Other:**	
Built in Millwork		None			
Movable Furnishings		(1) L-Shaped Receptionist desk and rolling task chair in open configuration; (3) systems furniture workstations each with: (1) L-Shaped Desk, (1) Rolling desk chair, (1) trash can, (1) recycling bin; Waiting Area with: (2) End Tables, (1) Coffee Table, (10) Upholstered guest chairs			
Storage		(3) Lateral, (3) Bookcases at workstations			
Technology		Minimum of (5) “standard office” outlets for Voice/Data, (4) Computer with Flat Screen Monitor, (4) Phones, Wi-Fi Capable Electronic Key-Card Access, Network Printer, Wi-Fi coverage			
Lighting		LED Lighting Fixtures, Specialized accent and spot lighting in coordination with displays and graphics with automatic dimming control system, sensors/switches			
Electrical		120V, 1P power receptacles for: Computer(s), Flat Screen Monitor(s), Printer, and convenience			
Mechanical		General building HVAC with a temperature control zones by exposure			
Plumbing		None			
Specialized Equipment		Clock, Freestanding coat hook			

Space No:	2.43	Space Title:	Student Engagement Workroom		
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Storage, Mail, Copier, Fax, Supplies			
Occupants:		N/A			
Relationships:		Located adjacent to the Open Area/Receptionist Office			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		Built-in cabinets and work surfaces			
Movable Furnishings		(2) Trash can, (1) Recycling bin			
Storage		(2) Lateral, Shelves, & Cabinets to store office supplies. Cubby-style mailboxes.			
Technology		Minimum of (1) “standard office” outlet and (2) “standard data” outlets for Voice/Data, Phone, Network Printer/Copy, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Printers, Copier and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		Exhaust for copier			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.44	Space Title:	Student Engagement - Conference Room		
HEGIS Code:	350	Area NASF:	250	Space Quantity: 1	
Function:		Conference meeting room for large staff and faculty meetings			
Occupants:		10 persons			
Relationships:		Prime location within the administrative suite and adjacent to the main public reception area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Optional	Window Treatments:	Yes
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	None
Built in Millwork		Lockable Base Cabinets, Solid surface Countertops			
Movable Furnishings		(12) Conference Chairs, (1) Conference Table, (1) Trash can, Recycling bin			
Storage		None			
Technology		Minimum of (1) “standard office” outlet and (1) “standard data” for Voice/Data, Computer, Flat Screen Monitor, Wi-Fi coverage, conference phone, Electronic Card Access, Loudspeakers for program audio, AV Processing Equipment			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming lighting control sensors/switches. Coordinate lighting and controls with AV system			
Electrical		120, 1P power receptacles for: Computer(s), Flat Screen Monitor, AV Equipment, and convenience Power for dedicated mechanical unit(s)			
Mechanical		Power for dedicated mechanical unit(s)			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		White board, Tack board			

Space No:	2.45	Space Title:	Student Engagement - Lost and Found Storage		
HEGIS Code:	315	Area NASF:	100	Space Quantity: 1	
Function:		Storage			
Occupants:		1 persons			
Relationships:		Located within the suite, adjacent to administrative assistants			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		None			
Movable Furnishings		(1) Trash can, Recycling Bin, (1) PC Table, (2) chairs			
Storage		(2) Lateral, Wall Shelves, & lockable Cabinets (of various sizes) to store lost items. Cabinets to be labeled.			
Technology		Minimum of (2) “standard office” outlets for Voice/Data, (1) Computer with Flat Screen Monitor, (1) Phones, Wi-Fi capable, Electronic Key-Card Access, Printer			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General building HVAC.			
Special Requirements		None			
Plumbing		None			
Specialized Equipment		White board, Tack board			

Space No:	2.46	Space Title:	Student Engagement - Kitchenette/Breakroom		
HEGIS Code:	315	Area NASF:	125	Space Quantity: 1	
Function:		Food preparation station to serve conference and meeting room within the Student Engagement suite, will also serve as lunch and coffee area for staff/faculty			
Occupants:		4 persons			
Relationships:		Adjacent to meeting rooms and reception desk within the suite			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		(1) 8 Lin/Ft of Base and Wall Cabinets, Solid surface Countertops			
Movable Furnishings		Coffee maker, Refrigerator, Freezer, Microwave, (4) stools			
Storage		See Built-in Millwork			
Technology		Minimum of (1) “wall-phone” outlet for Voice/Data, Wi-Fi coverage, Electronic Card Access, wall-phone			
Lighting		LED Lighting Fixtures; General and under cabinet with the automatic dimming lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Coffee maker, Refrigerator, Freezer, Microwave and convenience GFI receptacles Motor rated switch/power to feed the exhaust fan Motor rated switch/power to feed the Garbage Disposal			
Mechanical		General building HVAC with dedicated temperature control zone			
Special Requirements		Provide local exhaust			
Plumbing		Sink with garbage disposal, floor drain			
Specialized Equipment		None			

Space No:	2.47	Space Title:	Resource Room		
HEGIS Code:	315	Area NASF:	300	Space Quantity: 1	
Function:		Space to support Student Government Association (SGA), Campus Activities Board (CAB) and Student Clubs. To provide mail slots, reconfigurable works tables for up to six students, and securable storage areas for materials used in developing student promotional materials and other related collateral			
Occupants:		Up to 12 students			
Relationships:		Adjacent and close to SGA and CAB offices and meeting spaces with convenient public access			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable, but not essential	Window Treatments:	Yes, if windows are provided
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		Includes wall-mounted mail slots for at least 40 clubs; and 5 L.F. of resilient, easily cleaned counter top and sink with storage cabinets below for prep and use of arts and crafts type materials for making event marketing materials			
Movable Furnishings		(2) six-person work/crafts table/stools that can be easily reconfigured; and (1) computer workstation, large enough to accommodate a computer and color printer, and task chair			
Storage		Club materials storage lockers			
Technology		Minimum of (3) “standard office” outlets for Voice/Data; Computer with Flat Screen Monitor, Network Printer, Phone, Wi-Fi coverage, Electronic Card Access			
Lighting		LED Lighting Fixtures with automatic lighting control sensors/switches			
Electrical		120V, 1P Power Receptacles for: Computer, Flat Screen Monitor, colored printer and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		To accommodate a sink			
Specialized Equipment		Paper Towel dispenser			

Space No:	2.48	Space Title:	Small Group Rooms		
HEGIS Code:	315	Area NASF:	115	Space Quantity: 4	
Function:	Space to support the small working group needs of the Student Government Association (SGA), Campus Activities Board (CAB) and Student Clubs.				
Occupants:	4 persons per room				
Relationships:	Adjacent and close to SGA and CAB offices and meeting spaces with convenient public access				
Architectural	Flooring:	Carpet	Base:	Rubber	
	Walls:	Gypsum Wall Board	Wall Finish:	Paint	
	Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"	
	Windows:	None	Window Treatments:	Yes, if windows are provided	
	Doors:	Glass	Door Size:	3'0" x 7'0"	
	Access:	Public Entrance	Other:		
Built in Millwork	None				
Movable Furnishings	Table for 4 with power and data outlets at tabletop, (4) chairs				
Storage	None				
Technology	Minimum of (2) “standard data” outlets for Voice/Data; Wall-mounted Flat Screen Monitor connectable to student-supplied laptops, Wi-Fi coverage, Electronic Card Access				
Lighting	LED Lighting Fixtures with the automatic lighting control sensors/switches				
Electrical	120V, 1P Power Receptacles for: Computers, at table top, Flat Screen Monitor and convenience				
Mechanical	General building HVAC with a dedicated temperature control zone.				
Plumbing	None				
Specialized Equipment	Wall-mounted marker board				

Space No:	2.49	Space Title:	Prayer/Meditation Room		
HEGIS Code:	610	Area NASF:	150	Space Quantity: 2	
Function:		Private rooms for multiple uses including reflection, prayer and meditation			
Occupants:		10 persons per room			
Relationships:		Located adjacent to washrooms			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Glass (Frosted)	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		Lockable base cabinets with solid surface countertop along one (short) wall for storage			
Movable Furnishings		(6) stack chairs, (4) individual kneeling benches, Shoe rack			
Storage		None			
Technology		Wi-Fi coverage			
Lighting		LED, Specialized accent and spot lighting in coordination with display wall with the automatic lighting control sensors/switches			
Electrical		120V, 1P Power Receptacles for: convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Prayer mats, Occupied/Unoccupied room signage			

Space No:	2.50	Space Title:	Meditation Wash Room		
HEGIS Code:	615	Area NASF:	80	Space Quantity: 2	
Function:		1 male and 1 female washroom to support the Prayer/Mediation Room			
Occupants:		N/A			
Relationships:		Adjacent to Prayer/Meditation Room			
Architectural		Flooring:	Ceramic Tile	Base:	Ceramic Tile
		Walls:	Ceramic Tile	Wall Finish:	Ceramic Tile
		Ceiling:	Gypsum Wall	Min. Ceiling Ht:	9'0" Min.
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(1) Trash cans			
Storage		Shoe storage for up to 10 pairs of shoes			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P GFI protected Power Receptacles for: convenience Junction box for Hand Dryers connection Motor rated switch/power to feed the exhaust fan			
Mechanical		12 ACH of exhaust. Provide air transfer for make-up			
Plumbing		(1) Water closet, (1) urinal, (1) lavatory, (1) floor drain			
Specialized Equipment		Hand dryers			

Space No:	2.51	Space Title:	Meeting/Conference Room I		
HEGIS Code:	350	Area NASF:	425	Space Quantity: 1	
Function:		Meeting space for SGA, CAB and Student Groups			
Occupants:		18 persons			
Relationships:		Central location in building proximal to SGA and CAB offices and reception/work area			
Architectural		Flooring:	Carpet	Base:	Ceramic Tile
		Walls:	Gypsum Wall Board	Wall Finish:	Ceramic Tile
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0" Min.
		Windows:	Optional	Window Treatments:	Yes
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	None
Built in Millwork		Base Cabinets, Wall cabinet, Solid surface Countertops, Lockable Cabinets			
Movable Furnishings		(18) Conference Chairs, (1) Conference Table, (2) Trash cans, Recycling bin			
Storage		Within cabinets (above)			
Technology		Minimum of (1) “standard office” outlet and (2) “standard data” outlets for Voice/Data; Computer with Flat Screen Monitor, Printer, Conference Phone, Wi-Fi coverage, Electronic Card Access, Loudspeakers (program sound only), AV Processing Equipment, located for suite access			
Lighting		LED Lighting Fixtures with the automatic dimmable lighting control sensors/switches			
Electrical		120V, 1P Power Receptacles for: Computers, at table top, Flat Screen Monitor, printer, white board and convenience			
Mechanical		Power for dedicated mechanical unit(s)			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Clock, White board, Tack board, Freestanding coat hook			

Space No:	2.52	Space Title:	Meeting/Conference Room II		
HEGIS Code:	350	Area NASF:	350	Space Quantity: 1	
Function:		Meeting space for SGA, CAB and Student Groups			
Occupants:		14 persons			
Relationships:		Central location in building proximal to SGA and CAB offices and reception/work area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Optional	Window Treatments:	Yes
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	None
Built in Millwork		Base Cabinets, Wall cabinet, Solid surface Countertops, Lockable Cabinets			
Movable Furnishings		(14) Task Chairs with wheels, (7) Table on wheels, (2) Trash can, Recycling bin			
Storage		Within cabinets (see above)			
Technology		Minimum of (1) “standard office” outlet and (2) “standard data” outlets for Voice/Data; Computer with Flat Screen Monitor, Printer, Conference Phone, Wi-Fi coverage, Electronic Card Access, Loudspeakers (program sound), AV Processing Equipment, Voice/Data, located for suite access			
Lighting		LED Lighting Fixtures with the automatic dimmable lighting control sensors/switches			
Electrical		120V, 1P Power Receptacles for: Computers, at table top, Flat Screen Monitor, printer, white board and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone.			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Clock, White board, Tack board, Freestanding coat hook			

Space No:	2.53	Space Title:	Open Workstations (includes all huddle areas)		
HEGIS Code:	310	Area NASF:	1,620	Space Quantity: 1	
Function:		Open hoteling work space for Student Groups, the general student body to use for individual work and small informal group (3 or less) collaboration			
Occupants:		12 workstations/huddle area that can accommodate 24			
Relationships:		Adjacent and close to SGA and CAB offices and meeting spaces with convenient public access			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	Desirable	Window Treatments:	
		Doors:	N/A	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	Sidelight
Built in Millwork		None			
Movable Furnishings		(12) Hoteling Desks, (12) Rolling Task Chairs, Trash Can, (12) Stacking chairs on wheels, (3) Side tables			
Storage		(2) Lateral			
Technology		Minimum of (12) “standard office” outlet and (1) “standard data” outlet for Voice/Data; TV Monitor, Computer with Flat Screen Monitor in huddle areas, Network Printer, Wi-Fi coverage			
Lighting		LED cubical task Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P Power for: systems Furniture 120V, 1P power receptacles for: TV Monitor, printer, Computer(s), flat screen monitor and convenience			
Mechanical		General building HVAC with a temperature control zones by exposure			
Plumbing		None			
Specialized Equipment		Clock, Freestanding coat hooks, (3) white boards, (3) tack boards			

Space No:	2.54	Space Title:	SGA President and Vice President		
HEGIS Code:	310	**Area NASF:**	115	**Space Quantity:** 2	
Function:		Private office space for SGA officers			
Occupants:		1 per room			
Relationships:		Adjacent to SGA Office/Work Area			
Architectural		**Flooring:**	Carpet	**Base:**	Rubber
		Walls:	Gypsum Wall Board	**Wall Finish:**	Paint
		Ceiling:	Acoustical Panel	**Min. Ceiling Ht:**	9'0"
		Windows:	Desirable	**Window Treatments:**	
		Doors:	Solid Wood	**Door Size:**	3'0" x 7'0"
		Access:	Internal Suites	**Other:**	Sidelight
Built in Millwork		Coat Hooks			
Movable Furnishings		(1) L-Shaped Desk, (1) Rolling Chair, (2) Side Chairs, Trash Can, Recycling Bin			
Storage		Rear Credenza, Bookshelf			
Technology		Minimum of (1) “standard office” outlet for Voice/Data; Computer with Flat Screen Monitor, Printer, Voice/Data, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Printer, Computer(s), flat screen monitor and convenience			
Mechanical		General building HVAC			
Plumbing		None			
Specialized Equipment		White board			

Space No:	2.55	Space Title:		SGA Office/Work Area	
HEGIS Code:	310	Area NASF:	360	Space Quantity: 1	
Function:		SGA open office work area			
Occupants:		6 persons			
Relationships:		Accessible from SGA/CAB suite entrance			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Yes, view to treatment area	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(6) L-Shaped Desk, 6) Rolling Chair-Upholstered, (3) Side Chairs, Trash cans, Recycling bin			
Storage		(3) Lateral, Bookshelf, Coat Closet			
Technology		Minimum of (1) “standard office” outlet for each person for Voice/Data, TV Monitor, Computer with Flat Screen Monitor, Voice/Data, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Printer, Computer(s), flat screen monitor and convenience			
Mechanical		General building HVAC with a temperature control zones by exposure			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.56	Space Title:		SGA Storage	
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Storage			
Occupants:		N/A			
Relationships:		Located within the SGA Office/Work Area			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		None			
Movable Furnishings		None			
Storage		(2) Lateral, Shelves, & Cabinets to store classroom and office supplies			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: convenience			
Mechanical		General building HVAC			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.57	Space Title:		CAB Office	
HEGIS Code:	310	Area NASF:	475	Space Quantity: 1	
Function:		Storage			
Occupants:		4 persons			
Relationships:		Located within the SGA Office/Work Area			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Yes, view to treatment area	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(1) L-Shaped Desk, (1) Rolling Chair-Upholstered, (2) Side Chairs, Trash can at private office, recycling bin, (6) L-shaped work surfaces in systems furniture workstation			
Storage		(2) Lateral, Rear Credenza, Bookshelf in private office, (1) lateral in each workstation			
Technology		Minimum of (1) “standard office” outlet for each person for Voice/Data, Computer, Flat Screen Monitor, Computer with Flat Screen Monitor in each workstation, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Printer, Computer(s), flat screen monitor(s) and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Coat hook on door of CAB Office, Freestanding coat hook in workspace			

Space No:	2.58	Space Title:		CAB Storage	
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Storage			
Occupants:		N/A			
Relationships:		Located within the CAB Office, adjacent to administrative assistants			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		(1) 8 Lin/FT Base Cabinet, (1) 8 Lin/FT Wall Cabinet, Solid surface Countertop			
Movable Furnishings		None			
Storage		(2) Lateral, Shelves, & Cabinets to store office supplies			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.59	Space Title:		General Club Storage	
HEGIS Code:	315	Area NASF:	200	Space Quantity: 1	
Function:		Storage			
Occupants:		N/A			
Relationships:		Located within the CAB office suite			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		(1) 8 Lin/FT Base Cabinet, (1) 8 Lin/FT Wall Cabinet, Solid surface Countertop			
Movable Furnishings		None			
Storage		(2) Lateral, Shelves, & Cabinets to store office supplies			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	2.60	Space Title:	Owls Newspaper Office		
HEGIS Code:	310	Area NASF:	675	Space Quantity: 1	
Function:		Office/Workstations – 6 workstations (3 open, 3 as cubicles), conference table that holds 10, misc. tables and storage			
Occupants:		10 persons			
Relationships:		Accessible from a public corridor			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Yes, view to treatment area	Window Treatments:	Yes
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Public Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		(1) L-Shaped Desk (1) Rolling Chair-Upholstered and (1) Trash Can in each workstation; (1) Work surface table, (1) Task chair, (1) Trash can in each open workstation			
Storage		(2) Lateral, Rear Credenza, Bookshelf, Closet, Shelves			
Technology		Minimum of (1) “standard office” outlet for each person and (1) “standard data” outlet for Voice/ Data, TV Monitor, Computer with Flat Screen Monitor, Voice/Data, Electronic Card Access, Wi-Fi coverage, printer			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: TV Monitor, Computer(s), flat screen monitor(s) and convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		None			
Plumbing		Freestanding coat hook, clock, marker boards			
Specialized Equipment		None			

Space No:	2.61	Space Title:	Owls Newspaper Storage		
HEGIS Code:	315	Area NASF:	115	Space Quantity: 1	
Function:		Storage			
Occupants:		N/A			
Relationships:		Located within the suite, adjacent to administrative assistants			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	
Built in Millwork		(1) 8 Lin/FT Base Cabinet, (1) 8 Lin/FT Wall Cabinet, Solid surface Countertop			
Movable Furnishings		None			
Storage		(2) Lateral, Shelves, & Cabinets to store office supplies			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: convenience			
Mechanical		General building HVAC with a dedicated temperature control zone			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	3.1	Space Title:		Green Room	
HEGIS Code:	615	Area NASF:	250	Space Quantity: 1	
Function:		Area with makeup mirror, lounge seating, clothing storage, etc.			
Occupants:		4 persons			
Relationships:		Immediately adjacent to Ballroom			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:		Window Treatments:	
		Doors:	Wood	Door Size:	3'0" x 7'0"
		Access:	Private Entrance	Other:	
Built in Millwork		Base cabinets with (4) vanity locations with knee space, mirror			
Movable Furnishings		(2) End Tables, (1) Coffee Table, (4) Upholstered Lounge Chairs			
Storage		Closet with 5' clothes rod and shelf			
Technology		Minimum of (1) "standard data" outlet for Voice/Data Clock, Flat Screen Display, Loudspeaker with feed from ballroom, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming lighting control sensors/switches.			
Electrical		120, 1P power receptacles for: Convenience and charging personal electronics devices/ equipment. Power for dedicated mechanical unit(s).			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Clock			

Space No:	3.2	Space Title:		Green Room Toilet	
HEGIS Code:	615	Area NASF:	50	Space Quantity: 1	
Function:		Gender-neutral Toilet room for use by Green Room occupants			
Occupants:		N/A			
Relationships:		Access from Green Room			
Architectural		Flooring:	Ceramic Tile	Base:	Ceramic Tile
		Walls:	Ceramic Tile	Wall Finish:	Ceramic Tile
		Ceiling:	Gypsum Wall	Min. Ceiling Ht:	9'0" Min.
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Private Entrance	Other:	
Built in Millwork		None			
Movable Furnishings		Mirror, (1) Trash cans			
Storage		None			
Technology		Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P GFI protected Power Receptacles for: convenience Junction box for Hand Dryers connection Motor rated switch/power to feed the exhaust fan			
Mechanical		12ACH Exhaust, Use transfer air for exhaust			
Special Requirements		Provide Local exhaust			
Plumbing		(1) Water closet, (1) Lavatory and (1) floor drain			
Specialized Equipment		Hand dryers			

Space No:	3.3	Space Title:	Resource Room		
HEGIS Code:	615	Area NASF:	300	Space Quantity: 1	
Function:		Space for preparing for events as well as housing resources for students/staff			
Occupants:		N/A			
Relationships:		Locate near Ballroom, Breakout Rooms			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustical Panel	Min. Ceiling Ht:	9'0"
		Windows:	None	Window Treatments:	None
		Doors:	Wood	Door Size:	3'0" x 7'0"
		Access:	Off Circulation	Other:	
Built in Millwork		Lockable base and wall cabinets with solid surface countertop			
Movable Furnishings		(1) 4' x 8' worktable, (4) rolling task chairs			
Storage		Storage closet with adjustable shelving			
Technology		Minimum of (1) "standard office" outlet for Voice/Data, Clock, Electronic Card Access, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming lighting control sensors/switches.			
Electrical		120, 1P power receptacles for: Convenience and charging personal electronics devices/ equipment. Power for dedicated mechanical unit(s).			
Mechanical		General building HVAC with a dedicated temperature control zone			
Plumbing		None			
Specialized Equipment		Clock			

Space No:	3.4	Space Title:		Events Storage	
HEGIS Code:	615	Area NASF:	200	Space Quantity: 1	
Function:		Storage room for miscellaneous event related supplies			
Occupants:		N/A			
Relationships:		Near Ballroom, Break Out Rooms			
Architectural		Flooring:	Resilient	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Solid Wood	Door Size:	3'0" x 7'0"
		Access:	Direct from event	Other:	
Built in Millwork		None			
Movable Furnishings		None			
Storage		Floor- and wall-mounted adjustable Shelving			
Technology		Electronic Card Access, Wi-Fi coverages			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	3.5	Space Title:	Main Meeting Room/Ballroom		
HEGIS Code:	615	Area NASF:	9,800	Space Quantity: 1	
Function:		Multipurpose flat floor room for public/ private functions, seminars, lectures. 750 lecture-style, sub-dividable into 3 @ 250 for lecture. Approximately 550 seated in banquet style dining.			
Occupants:		Up to 750 persons			
Relationships:		Adjacent to primary corridor and breakout rooms. Easily accessible to building entry.			
Architectural		Flooring:	Carpet/Hardwood	Base:	Rubber
		Walls:	Gypsum Wall Board and Acoustical Wall Panels	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	Desirable	Window Treatments:	Blackout capability
		Doors:	Glass, Aluminum Frame	Door Size:	3'0" x 7'0"
		Access:	From primary circulation / pre-function area	Other:	
Built in Millwork		None			
Movable Furnishings		(750) stack chairs with storage dollies, (70) 60"-diameter around dining tables with storage dollies			
Storage		A/V system rack closet			
Technology		Minimum of (1) "standard teacher" outlet, (1) "wall-phone" outlet, and (1) "emergency phone" outlet for Voice/Data, (3) projection screen / ceiling projector systems with loudspeakers for both program audio and voice amplification, integrated within a single AV system that allows for each divided space to work independently or in combination, Wi-Fi coverage (density), (3) Portable speaking lectern with computer, document camera, AV system controls			
Lighting		LED Dimmable Lighting Fixtures with the multi scene automatic dimming system, sensors/ switches. Coordinate lighting and controls with AV system			
Electrical		120V, 1P power receptacles for: Projector, Projection Screen, A/V equipment and convenience			
Mechanical		General Building HVAC, with dedicated temperature control			
Special Requirements		CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Built in Hanging system to hang materials on wall			

Space No:	3.6	Space Title:	Meeting Room Storage		
HEGIS Code:	615	Area NASF:	900	Space Quantity: 1	
Function:		Provides a location for the storage of Ballroom and Break Out Room furnishings and equipment			
Occupants:		N/A			
Relationships:		Located adjacent to Ballroom			
Architectural		Flooring:	Epoxy	Base:	Rubber
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	Blackout capability
		Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"
		Access:	From primary circulation near Ballroom	Other:	
Built in Millwork		None			
Movable Furnishings		None			
Storage		Accommodate Ballroom furnishings			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Lighting Fixtures with the automatic lighting control sensors/switches			
Electrical		120V, 1P power receptacles for: Convenience			
Mechanical		General Building HVAC			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

Space No:	3.7	Space Title:		Break Out Rooms	
HEGIS Code:	680	Area NASF:	1,500	Space Quantity: 2	
Function:		Open flexible Breakout Space for 60 people seated for lecture/ presentation and overflow space for ballroom			
Occupants:		60 persons estimated			
Relationships:		Adjacent to Ballroom			
Architectural		Flooring:	Carpet	Base:	Rubber
		Walls:	Gypsum Wall Board	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	9'0"
		Windows:	Optional	Window Treatments:	Yes
		Doors:	Glass	Door Size:	3'0" x 7'0"
		Access:	Internal Suites	Other:	None
Built in Millwork		None			
Movable Furnishings		60 stack chairs with storage dollies			
Storage		A/V closet with rack			
Technology		Minimum of (1) “standard teacher” outlet, (1) “wall-phone” outlet, and (1) “emergency phone” outlet for Voice/Data, Each room: Projection screen / projector systems with loudspeakers for program audio and voice amplification, Wi-Fi coverage (density), Portable speaking lectern with computer, document camera, A/V system controls Each room: (2) LCD screens for AV capability with loudspeakers for program audio and voice amplification.			
Lighting		LED Dimmable Lighting Fixtures with the automatic dimming system, sensors/switches.			
Electrical		120V, 1P power receptacles for: AV Equipment rack, and convenience Power for dedicated mechanical unit(s)			
Mechanical		General building HVAC with a dedicated temperature control zone., CO2 based demand control ventilation			
Plumbing		None			
Specialized Equipment		Built in Hanging system to hang materials on wall			

Space No:	3.8	Space Title:		Break Out Storage	
HEGIS Code:	680	Area NASF:	300	Space Quantity: 1	
Function:		Storage of Break Out Room furnishings and equipment			
Occupants:		N/A			
Relationships:		Adjacent to Break Out Rooms			
Architectural		Flooring:	Epoxy	Base:	None
		Walls:	CMU	Wall Finish:	Paint
		Ceiling:	Acoustic Panel	Min. Ceiling Ht:	10'0"
		Windows:	None	Window Treatments:	None
		Doors:	Hollow Metal	Door Size:	(2) 3'0" x 7'0"
		Access:	Break Out Rooms	Other:	
Built in Millwork		None			
Movable Furnishings		None			
Storage		Accommodate furnishings and equipment for Break Out Rooms			
Technology		Electronic Card Access, Wi-Fi coverage			
Lighting		LED Dimmable Lighting Fixtures with the multi scene automatic dimming system, sensors/ switches. Coordinate lighting and controls with AV system.			
Electrical		120V, 1P power receptacles for: A/V equipment and Convenience			
Mechanical		General Building HVAC			
Special Requirements		Smoke dampers as required by code			
Plumbing		None			
Specialized Equipment		None			

PART II
PROJECT JUSTIFICATION AND SCOPE

SECTION 5:
Maintenance and Facility Information

If the Largo Student Center continues to operate at a status-quo condition and use, the College will not be able to provide the student life experience needed for students to succeed. Furthermore, faculty/staff along with the greater campus community will continue to suffer. The useful life of many of the building systems and equipment have been pushed near or beyond designed service life expectancy and need to be comprehensively upgraded or replaced.

5.01 Building Information

The Largo Student Center is a 69,116 gross square foot, two story building constructed in 1975 near the intersection of MD Route 202 and Campus Way South. The building is a concrete masonry unit encased steel frame with concrete-topped metal decks, brick veneer and flat roofs. The building is heated and cooled with a combination of a central boiler, chiller and cooling tower system and supplemental roof top gas units. Currently, the building houses offices, meeting/conference spaces of various sizes, dining and food service, a College book/retail store, student study, lounge and activity spaces and numerous building support spaces. The facility is used primarily for student service and various activity functions.

5.02 Code Assessment

The building code provisions with the greatest potential impact on the renovation and expansion of the building are:

- **Use Group.** The existing building is mixed-use, unseparated A-3, B & M. The building floor plate currently exceeds the allowable under the current building code. Nearly any renovation or addition would require the separation of the Use Groups with one-hour fire-rated construction, and/or the separation of the addition by way of a firewall. Neither of these approaches appears to be cost-prohibitive.

- **Smoke Evacuation.** The atrium does not have smoke evacuation, and it would not be required under the current code because the building is sprinklered. Should the atrium be expanded to a 3-story space, a smoke evacuation system would be required. Though relatively expensive to install, smoke evacuation systems can double as natural ventilation systems during swing seasons.

- **Seismic Design.** The existing structural system was designed when the Building Code did not require structural system designs to account for the lateral loads caused by seismic events. Should the load on the existing building be changed by more than 10% (by any means inclusive of additional floor loads, expansion of floor plates, additional stories) then the entire structure would have to be modified to meet the seismic requirements of the current code. This is a costly and invasive undertaking that can be avoided through careful attention to renovation scope as well as by structuring any additions separately from the existing structure.

- **Accessibility.** While building access and toilet facilities appear to be in compliance with current requirements for wheelchair accessibility (with some minor exceptions) the existing elevators are not in compliance and pose a deterrent to occupants in wheelchairs that need to access the second floor.

- **Exterior Exit Stairs.** Two of the primary exit stairs from the Largo Student Center are uncovered exterior stairs. Though allowed by current code, and generally considered to be a good design option even on new structures (because of the design's inherent ability to avoid smoke intrusion, exit stairs must be covered to avoid the build-up of precipitation (particularly snow and ice).

A more detailed summary of the code review follows.

Applicable Codes

The original building was designed in 1975 under building codes that are now antiquated. If the building was renovated, it would be required to comply with the current State Model Performance Code (MPC) for State Building and the Maryland Building Performance Codes and Standards. As of January 1, 2015, these include (with some modifications):

- Maryland Building Rehabilitation Code (MBRC), which references the 2012 International Existing Building Code (IEBC)
- 2015 International Building Code (IBC)
- Maryland State Fire Prevention Code, which references the 2012 National Fire Protection Association (NFPA) 101 Life Safety Code
- 2015 Maryland Accessibility Code (MAC), which references the 2010 Americans with Disabilities Act (ADA)
- 2015 International Energy Conservation Code (IECC)
- International Green Construction Code
- 2015 International Mechanical code
- 2015 International Plumbing Code

Existing Building Code

Under 2012 IEBC, the renovation would be categorized as a Level 2 Alteration, if less than fifty percent of the building was modified. If more than fifty percent of the building was modified, it would be classified as a Level 3 Alteration. Furthermore, any of the following modifications would be considered an addition per the MBRC:

- An increase in the building area
- An increase in the aggregate floor area of the building
- An increase in the height of the building
- An increase in the number of stories of a building.
- Note that any addition that would be separated by a firewall would be considered a separate building and would not be considered as increasing the area or height of the existing building.

Occupancy

Under current building codes, the Largo Student Center occupancy would be classified as multi-use unseparated containing the following occupancies: Assembly (A-3), Business (B), and Mercantile (M). The most restrictive occupancy is used in determining the allowable building height and area. Under 2015 IBC, the Assembly (A-3) occupancy would typically be applied to the whole of the building, because it generally results in the most restrictive requirements. Under 2012 NFPA 101, the additional uses are considered to be incidental to the main assembly occupancy.

Construction Type

The original construction classification is not clear, but based upon an onsite review, the building appears it most closely meets the requirements of 2015 IBC type II-B noncombustible, unprotected construction. Under 2012 NFPA 101, the comparable construction type is II-000. This assumption should be confirmed ahead of the design of the renovation and addition. Because the building is an assembly occupancy with more than 300 occupants, the building is required to be sprinklered. The building currently has a fire suppression system. Any renovations to the building will require the sprinkler system be maintained plus extended into the proposed additions.

Height and Area Limitations

Per 2015 IBC, the height and area limitations for the building are established by the primary Assembly (A-3) occupancy and the construction type. According to 2015 IBC Table 506.2, the allowable gross area for any floor of an A-3 occupancy with Type II-B construction is 28,500 SF. Note that the largest floor plate for the existing Largo Student Center at approximately 34,700 GSF already exceeds this value. The height limitation for a sprinklered building of this type is 75 feet above grade per 2015 IBC Table 504.3, with a maximum of three (3) floors above grade per 2015 IBC Table 504.4. Center is currently just two (2) stories tall.

There are reasonable strategies for addressing potential additions and expansions of the existing building. One option is to increase the amount of building perimeter that is accessible to emergency vehicles. Another option is to separate the building into its constituent use groups using fire separation assemblies. Separating additions from the existing building using fire walls is a reasonable strategy for adding area to the existing building. Consideration for the expansion of the existing building without the use of firewalls presents some complications, since its structure would have to be upgraded to meet current seismic lateral loading criteria if loads on the existing structure are increased by as little as 10 percent under a Level 3 Alteration.

Egress

The number of exits per story meets or exceeds the minimum number required for the occupant load. Two of the exits from the second floor are unenclosed exterior stairways. These stairways should be covered, or otherwise treated, to eliminate the potential for building-up of snow and ice.

Accessibility and Elevators

Due to the lack of an accessible elevator (the building has two elevators, but neither has a cab that meets the requirements for wheelchair accessibility) it is difficult for disabled persons to navigate vertically. Even if the building is not renovated, at least one elevator must be added to meet the current Maryland guidelines for accessibility.

Energy Conservation

If the building is renovated, the new construction of altered portions and additions will be required to comply with 2015 IECC. Per 2015 IECC, masonry walls above grade for a building in this climate zone are to have an R-value of 9.5 with continuous insulation. The walls below grade are to have an R-value of 7.5 with continuous insulation. None of the existing exterior masonry walls appears to be insulated above or below-grade. For roofs with insulation entirely above the roof deck, the roof assembly is required to have an R-value of 30 utilizing continuous insulation. Existing windows are all single-glazed and do not meet the maximum U-factor and Solar Heat Gain Coefficients stated in Table C402.4 of the IECC.

Termites & Rodents

Largo Student Center has not experienced termite problems so an inspection and report has not been completed. In Fall 2016 during the excavation work, which was part of the renovation of Lanham Hall (located adjacent to Largo Student Center) the building did experience a brief rodent problem. Facilities Planning and Management staff completed mitigation work to stop rodent intrusion by internally laying traps and closing perimeter openings, and hiring Orkit Pest Control to treat the area.

Asbestos and other Hazardous Materials

An asbestos survey was not included in the Part I / Part II Study Phase. Though an asbestos survey was conducted by OMC Analytical Laboratory in 1988, a new study should be included within the scope of work for the A/E design team. As part of the scope of the addition and renovation work, all asbestos containing materials are to be removed from the Largo Student Center.

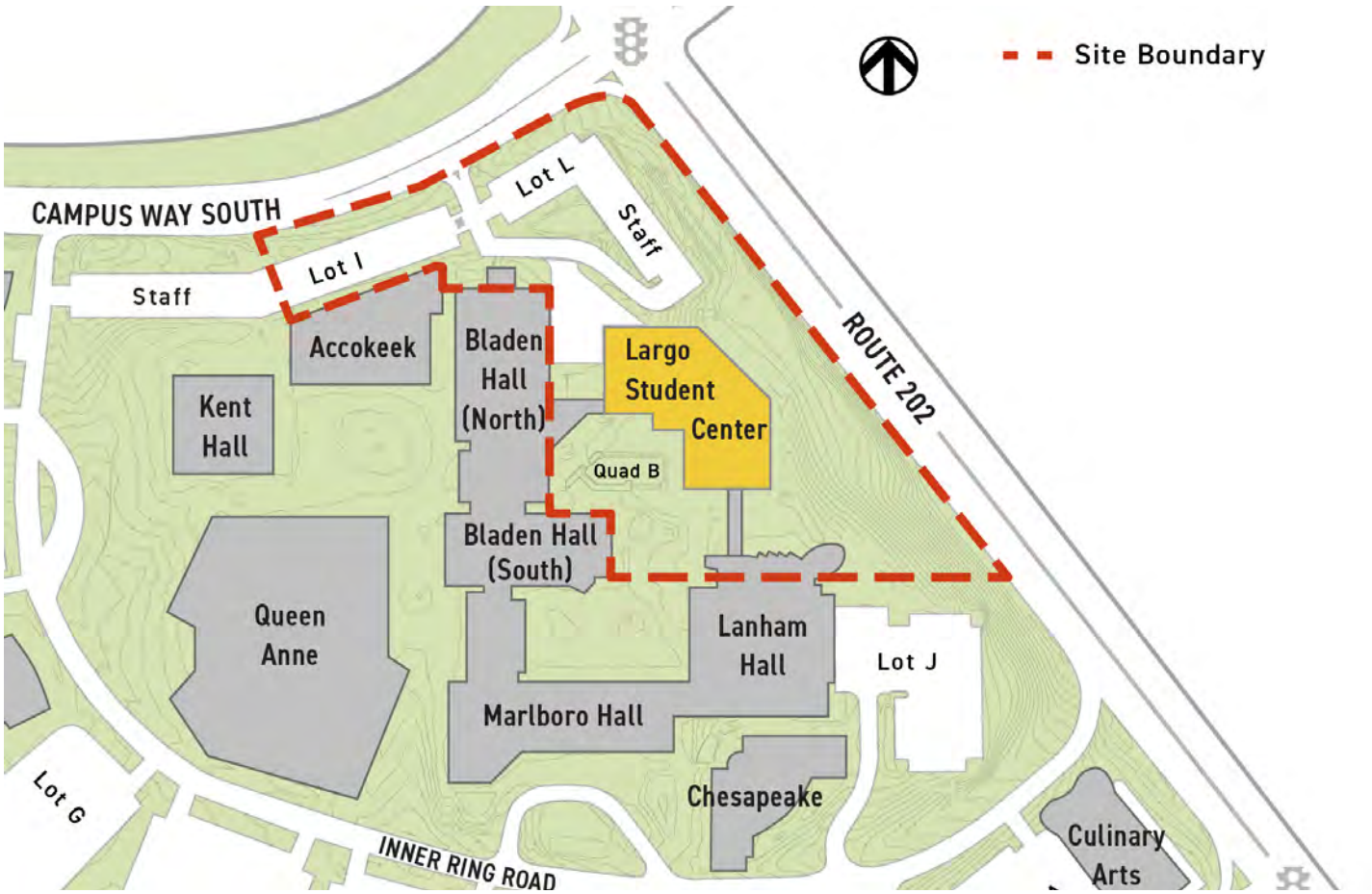
No hazardous materials storage areas were identified by the College and none were observed in the assessment of the Largo Student Center. Care should be taken in the design of kitchen operations to limit the amounts of grease, and other wastes on site, providing adequate control areas for their storage and containment.

5.03 Existing Site Conditions

The site survey and assessment limits extend from the area surrounding the existing Largo Student Center, north to Campus Way, east to MD Route 202, south toward Lanham Hall, west toward the existing plaza area and Bladen Hall (North). Figure 5.1 delineates the limits of site survey and assessment completed as part of this program.

The existing site is the area around and adjacent to the Largo Student Center. The site immediately adjacent to and surrounding the building is relatively flat with a gentle incline from south to north and extends to the north where the grade slopes more steeply up to MD Route 202 and

Figure 5.1: Site Assessment Area



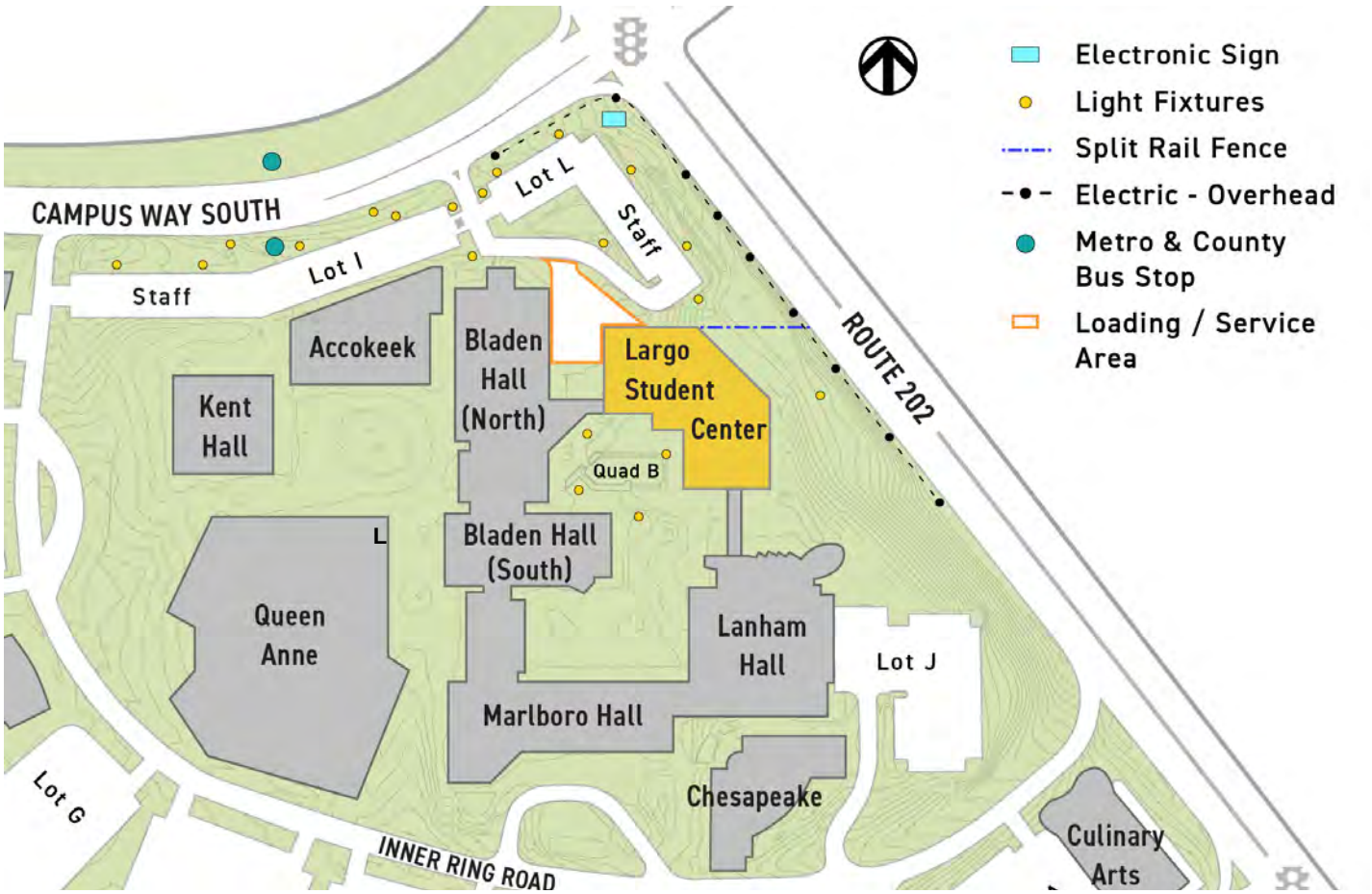
to the west up to Campus Way South. Both underground and above ground utilities traverse and run adjacent to the proposed project site. The site is improved with surface parking (Lot L for students, faculty, staff and visitors), an outdoor plaza to the east (Quad B), green space to the north and east, adjacent buildings to the south, pedestrian scale lighting to the east and west and vehicular and parking lot scale lighting to north and west. Existing underground utilities include telecommunications, sanitary sewer, storm sewer, domestic water, gas and low and medium voltage electric lines. Overhead poles carrying electric power run along Campus Way South and MD Route 202. Vehicle (passenger and service) access is provided via road access from the north bound lane of Campus Way South. In addition, an electronic message board sign is located at the corner.

An existing site issue is the north side drainage problems. The current site grading in this area has created a water infiltration issue in Rennie Forum, located along the northeast perimeter of the building. A sump pump was installed recently to address the water infiltration problem. This improvement has added building equipment that needs to be maintained and has created a noise issue for use of the forum. This drainage condition will be addressed as part of the capital project.

The Largo Student Center frames up the north and east perimeters of Quad B. Figure 5.2 illustrates existing site conditions and the location of the Largo Student Center in relation of adjacent academic and administrative facilities in the Academic Core.

In general, the existing grades in the assessment area slope from east to west, with MD Route 202 at the highest elevation. The high side of the site is directly east of the Student Center where MD Route 202 elevations range from 162' (above mean seal level) to 151' near the intersection with Campus Way South (adjacent to Parking Lot L). The lowest portions of the site are within the recently constructed plaza area as well was the courtyard between Bladen Hall (North) and the Largo Student Center at elevation 141'. The existing first floor (FF) elevation for the Student Center is approximately 142'.

Figure 5.2: Existing Site Conditions



A 25' front yard minimum setback extends along MD Route 202 as well as Campus Way South. No hardscapes or building features can be placed within the yard setback. A system of utility poles run within the setback.

Vehicular Circulation and Parking

Current vehicular access to the Student Center is provided along the northern portion of the building (See Figure 5.3). The loading dock and fire department connection are along the northern most façade.

Staff parking is provided in adjacent parking lots I and L, between the Largo Student Center, Accokeek Hall and Campus Way South. Maintenance and emergency vehicular access only is provided along the southern façade of the building. Student parking for the Largo Student Center is provided in Lots A through H and Lot J.

Trash and recycling dumpsters/enclosures are adjacent to the loading dock.

Expanding Largo Student Center to the north will require an adjustment to parking lot L and could impact the existing loading dock and service functions (See Figure 5.2 and Photos 5.1 and 5.2). Implications to staff parking requirements will need to be considered. Trash and recycling dumpsters and enclosures may need to be relocated as well. Access to the central plant area will need to be maintained for maintenance purposes. Fire access to the existing Largo Student Center and expansion will need to be maintained as well.

Figure 5.3: Existing Vehicular Circulation and Parking

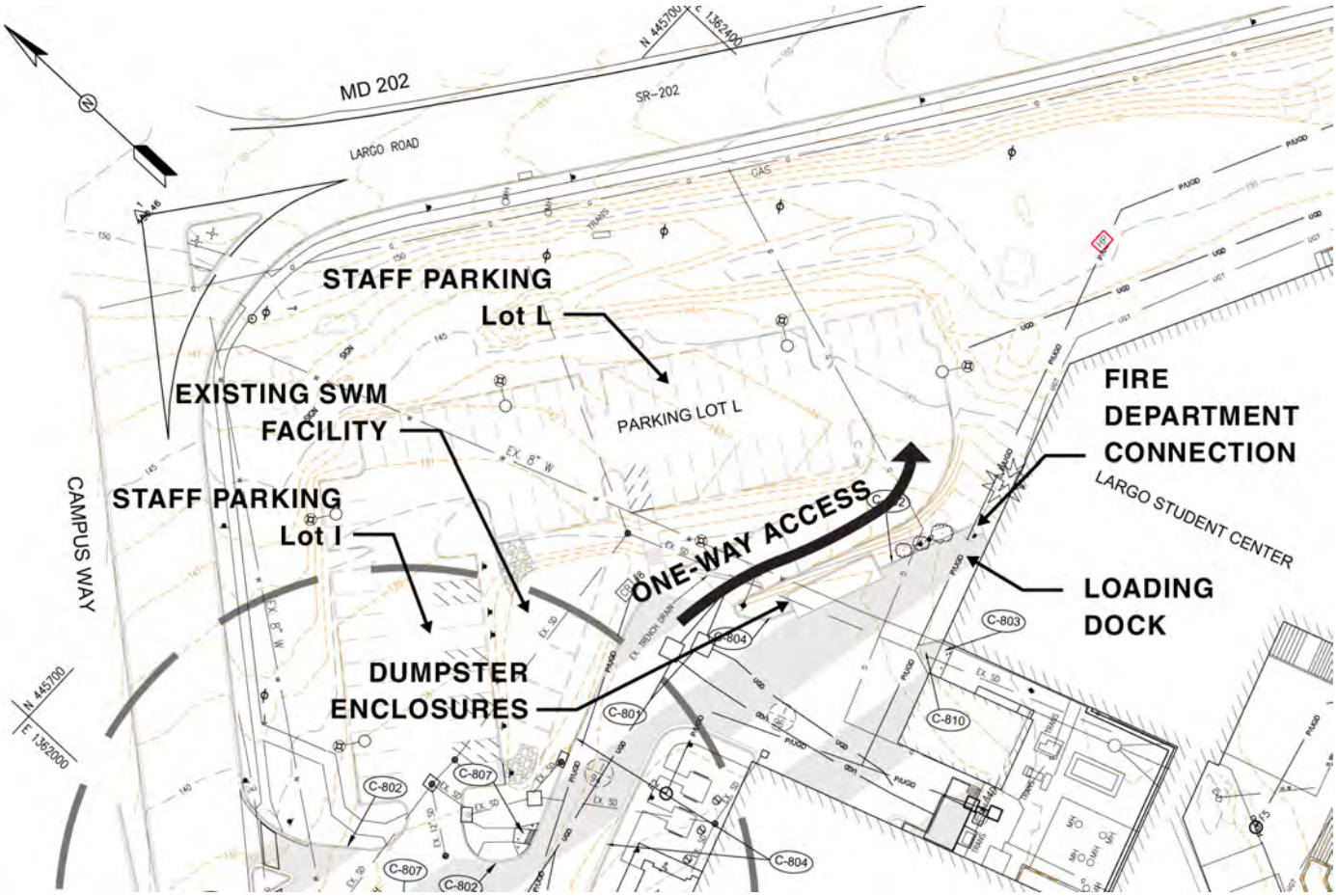


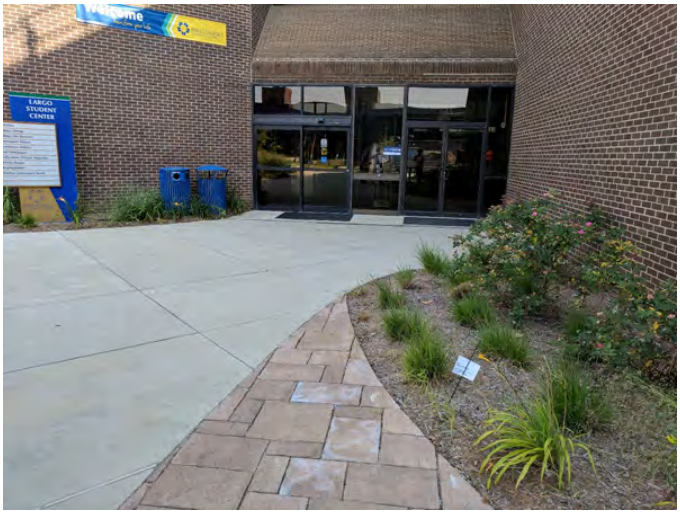
Photo 5.1: Loading Dock

Photo 5.2: Loading Dock, SWM Facility and Access to Lot L

Pedestrian Circulation/Site ADA Access

Most patrons, including students access the Largo Student Center through the ADA accessible main entrance (see Photo 5.3) on the south end of the building, adjacent to the Bladen Hall/Largo Student Center plaza (Quad B). Although not ADA accessible, staff may access through pedestrian doors adjacent to the loading dock area (see Photo 5.1). Due to the grade differences, ADA egress for exterior doors for an addition placed on the north and west sides of the existing building will present challenges.

Photo 5.3: Main Entrance



Site Utilities

Several existing underground utilities and overhead power lines traverse or exist near the project site. Based on preliminary analysis it appears that existing utilities have the capacity to serve a building addition. However, the existing piping of the sanitary and water lines may be at the end of their functional life and need replacement. The selected A/E will be required to complete the necessary study to make a final determination and confirmation of capacity and useful life for each utility service for the expanded building. Figures 5.2, 5.4 and 5.5 illustrate the general location of all underground and above ground utilities.

Domestic Water and Fire Protection

Combined domestic and fire protection water service is provided by Washington Suburban Sanitary Commission (WSSC) and enters the building just to west of the loading dock adjacent to the central plant. A fire hydrant is present to the north of the dumpster enclosures, serving as the dedicated fire protection hydrant for the Largo Student Center.

Sanitary Sewer

Sanitary sewer service is provided by WSSC as well. The sewer for the building exits near the main entrance and discharges to a grease interceptor facility to the south of the building (See Photo 5.4). Another sanitary sewer system exits between Largo Student Center and Bladen Hall near the central plant.

Photo 5.4: Grease Interceptor

Storm Sewer and Stormwater Management

A storm drain system extends from the southwest corner of the Largo Student Center and flows to the south, across the adjacent plaza; eventually leading to the main storm drain system for campus and the outfall along the western edge of the campus. A trench drain in front of the main entrance for Largo Student Center appears to tie to this system as well. Another smaller system serves parking lot L and outfalls to a Prince George's County system within Campus Way South. An existing grass swale conveys drainage along the eastern façade of the building. The swale is partially blocked by an existing electrical panel (See Photo 5.5). An exterior stairwell on the northside of the building provides access to Rennie Forum and an existing sump pump room (See Photo 5.6).

Photo 5.5: Electrical Panel within Swale

Photo 5.6: Stairwell along Northeast Façade

A stormwater management facility was installed with parking lot L and treats runoff from the parking lot. The facility contains several cleanouts with an underdrain system. The facility appears to be in working condition and provides water quality treatment and possibly channel protection volume.

Natural Gas

Natural gas is provided by Washington Gas and enters the building from the west. The campus natural gas main connection is along MD Route 202, just east of parking lot L. The gas main crosses lot L and extends between Largo Student Center and Bladen Hall. In addition to the gas line, many other underground utilities and tanks, along with above ground mechanical equipment are located between Largo Student Center and Bladen Hall.

Electric

Power is provided to campus via overhead PEPCO feeders and distributed to campus building through an underground ductbank.

Steam

Low pressure steam is currently provided to the Largo Student Center from the central plant in Bladen Hall.

Telecommunications

Telecommunication service is provided to the building via the newly constructed communications ductbank loop on campus.

Figure 5.4: Existing Utilities

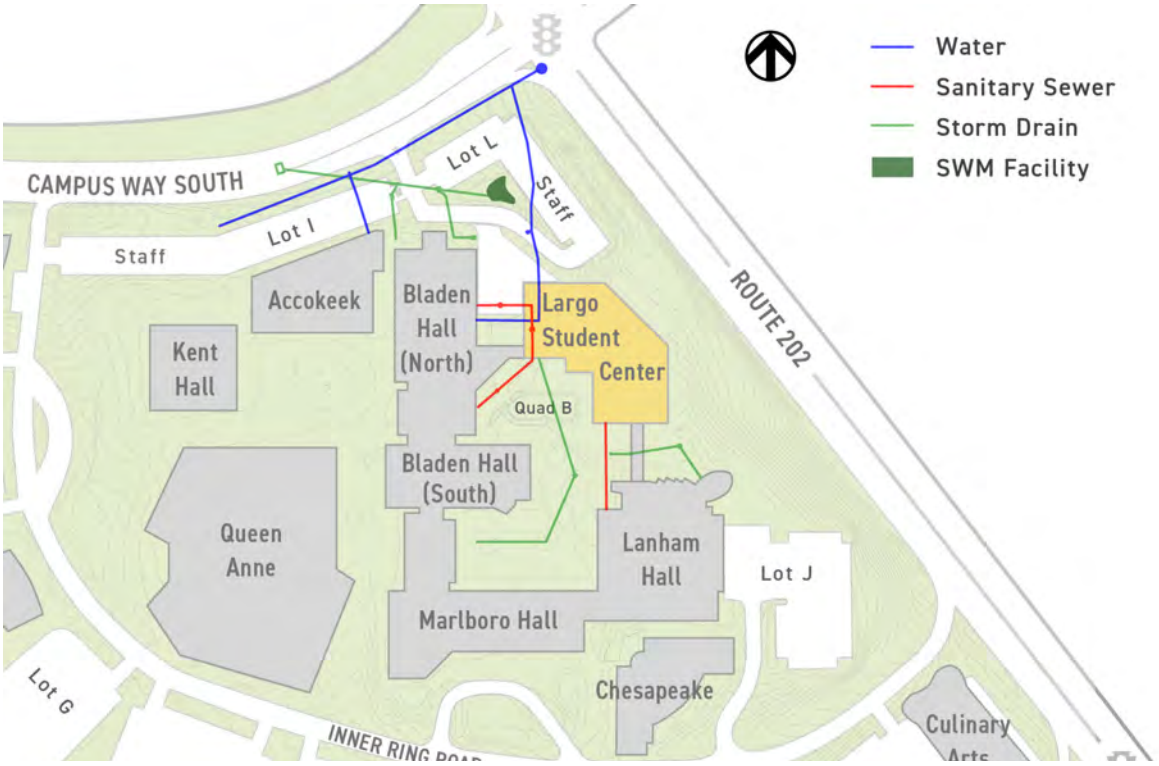
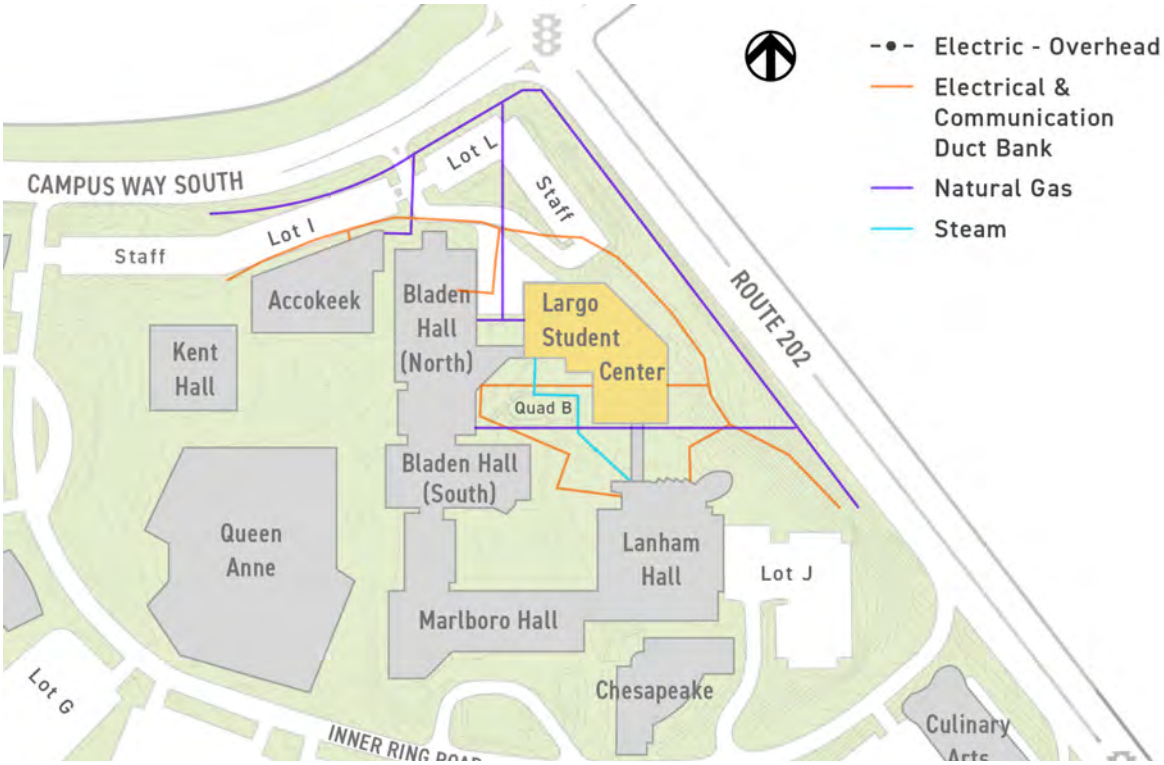


Figure 5.5: Existing Utilities



Landscaping

Several small planting beds exist within the plaza area and adjacent to Largo Student Center near the main entrance. Trees and shrubs were also installed with the construction of parking lot L. A large Tulip Poplar tree is just to the north of Largo Student Center. The tree is split in the middle and appears to be in decline. The tree may need to be removed to accommodate the building addition. Native species should be considered for proposed plantings associated with the project.

Photo 5.7: Large Tree on North

Walks, Steps, Pavers, and Paving

Walkways around LSC are in generally serviceable condition except for:

- South Entry from the plaza utilizes exterior walk-off mats, because the interior mats are inadequate for the satisfactory removal dirt tracked in by building occupants.
- Metal treads at the Grand Stair on the building's south side leading from the plaza to the second floor of the LSC have come loose in a couple of locations, and should be re-secured as part of the scope of the renovations unless the stair is removed completely.
- The concrete surface of the outdoor dining terrace at the second floor of the LSC is cracked in several locations. Though it has been repaired, it should be replaced in combination with the waterproof membrane below as part of the scope of the renovation to eliminate the potential for water intrusion below and through the adjacent curtainwall, unless the condition is eliminated by the renovation / addition.
- Paver areas of the plaza south of the LSC are no longer flush with all adjacent areas of concrete. Many pavers are no longer aligned with adjacent pavers and present accessibility challenges.
- The concrete stair at the loading dock is spalled at the railing attachment, and the railing does not meet current code.

Site Lighting

New pedestrian scale lighting was installed with the construction of the new plaza adjacent to the east entrance to the building and new road/parking scale lighting was installed on the west side of the building as part of the construction of the Circulation and Roadway Improvements project. Based on the investment in these fixtures, relocation and reuse should be planned if the proposed building addition requires that existing locations can't be maintained. All new site lighting proposed should comply with recent standards established by the College.

Signage

Neither interior nor exterior signage is adequate. Interior signage of different styles and scales addresses only the most basic wayfinding needs, but is stylistically inconsistent. Exterior signage identifying the building exists on the north and east facades facing away from campus. Though a sign on the outdoor dining canopy identifies the College, it does not identify the building from the south (plaza) side of the LSC.

No signage highlights the accessible route from outside the building, or from the nearest accessible parking stall to an accessible entrance. A new signage program, consistent with the campus program and meeting ADA recommendations is to be incorporated into the scope of the LSC renovation / addition.

5.04 Assessment of Site Conditions

Potential Building Location and Setbacks

The potential Largo Student Center building expansion location from the 2012 Facilities Master Plan is shown in Figure 5.6 below (No. 6). The 25' front yard minimum setback from MD Route 202 will need to be maintained. No hardscapes or building features can be placed within the yard setback. A system of above ground utility poles is located within the setback. The poles and overhead wires could impede construction access for the project and need to be considered in the development of design and construction sequencing plans.

Site Grading

The grade along the eastern most wall of the Largo Student Center (parallel to MD Route 202) is several feet higher than the Finished Floor Elevation (FFE) of the building (See Figure 5.7). The grades along the northern wall slope down to the loading dock area, approximately three feet below the FFE to allow for loading dock access. Existing parking lot L ranges in elevation from 145' on the southeast edge to 138' on the northwest exist for the parking lot. The grade differential should be considered when developing and studying building addition concepts in this area.

Figure 5.6: Master Plan Location for Building Addition

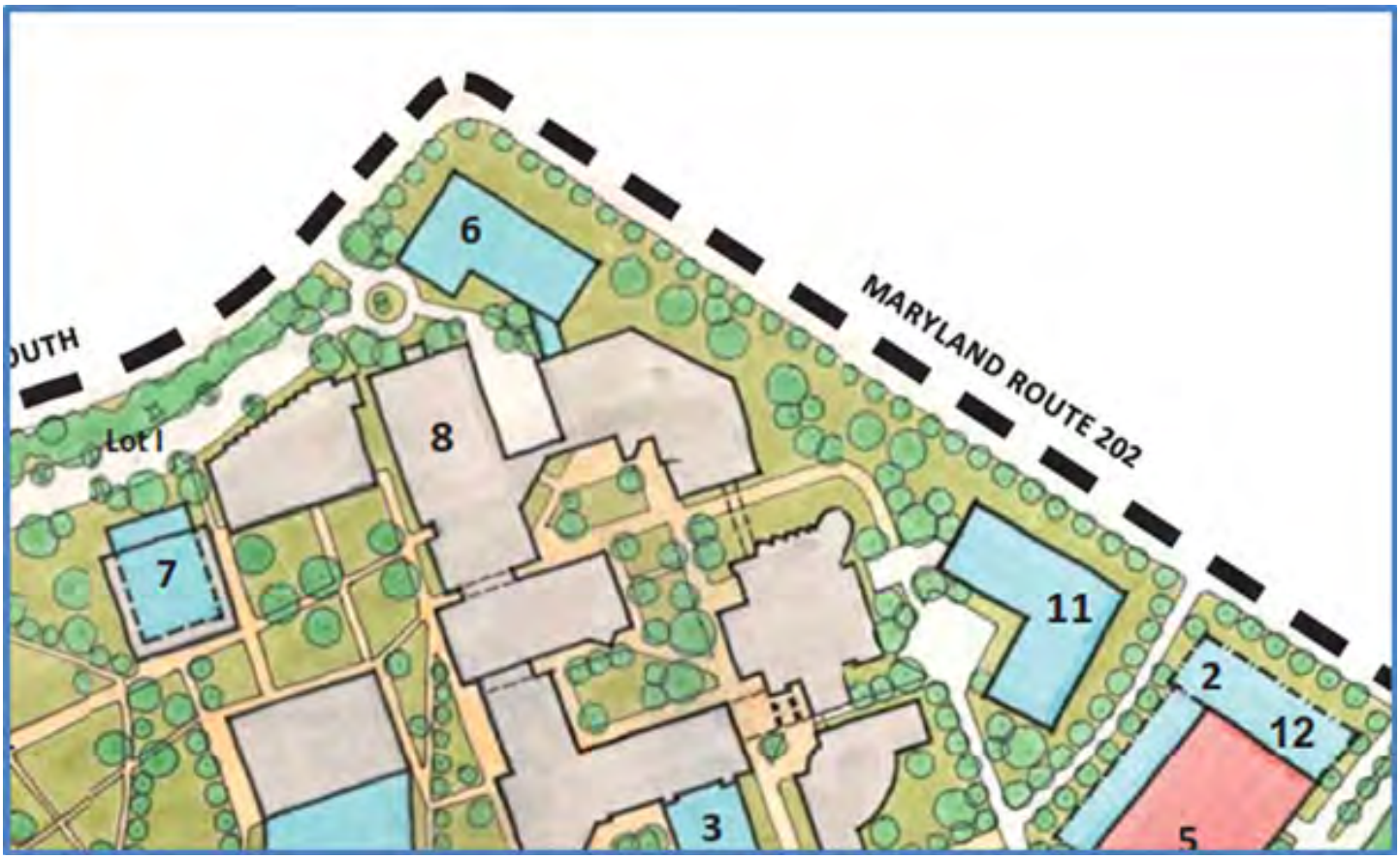
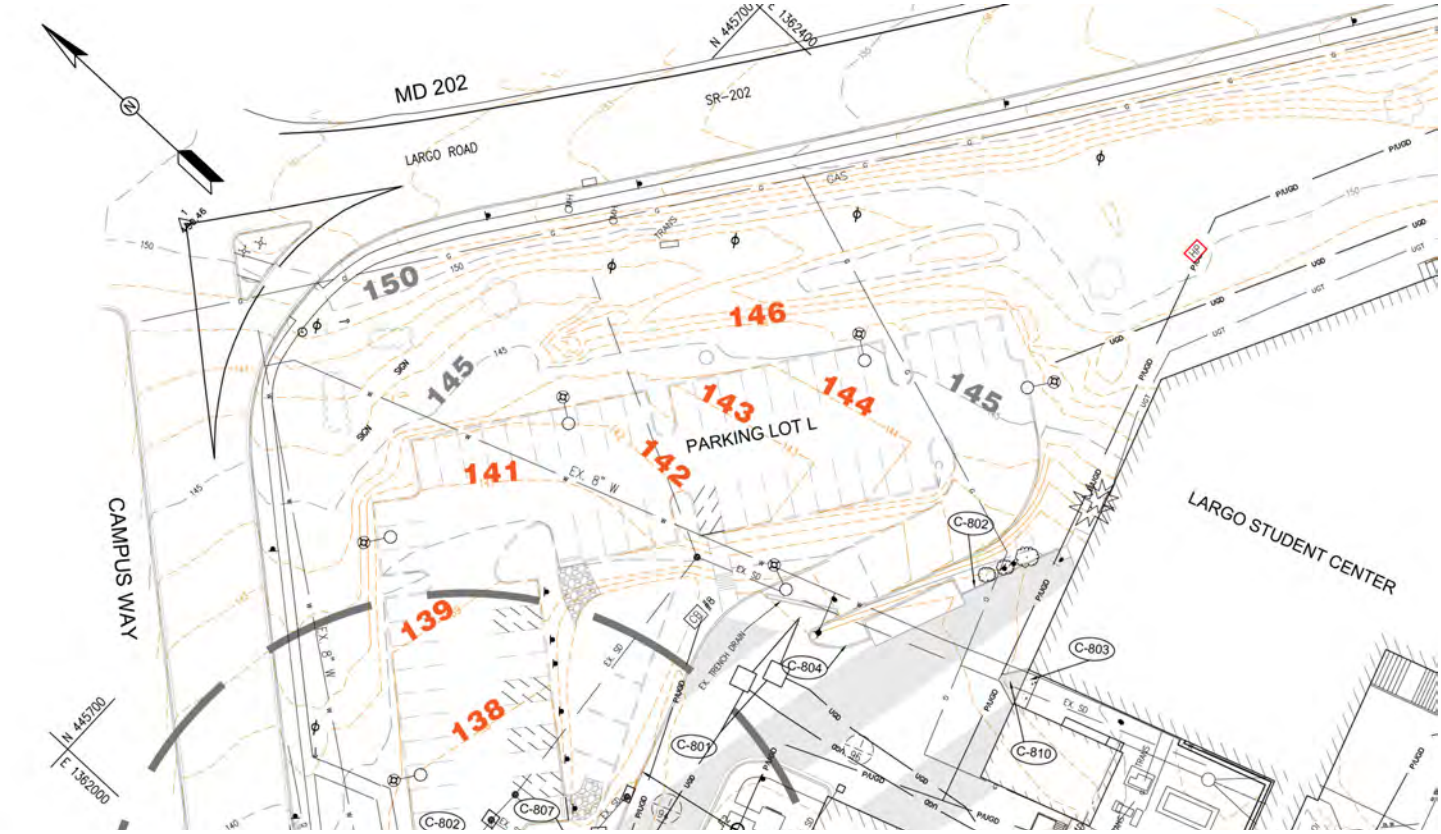


Figure 5.7: Existing Topography



Stormwater Management Systems

To meet Maryland Department of Environment (MDE) and Prince George's County requirements stormwater management will be needed for new impervious cover associated with the building expansion. The expansion could impact the existing stormwater management facility in parking lot L and mitigation would be required for the impacts. Stormwater management for the improvements and mitigation will require Environmental Site Design (ESD) to the Maximum Extent Practicable (MEP). Alternative surfaces such as pervious concrete and porous pavers as well as green roofs should be considered. Facilities such as micro-bioretention areas and gravel wetlands may also be required. Depending on the capacity of the downstream storm drain system, stormwater detention may be required as well.

Site Utilities

Based on the anticipated location of the building addition, certain utility impacts should be considered including:

- Portions of the combined domestic and fire protection water service as well as the dedicated fire hydrant may require relocation and replacement
- Portions of the sanitary sewer line will likely require relocation and/or replacement.
- The existing storm drain system within parking lot L will be impacted with the anticipated configuration of the building addition and will require relocation and/or replacement.
- A drainage swale and/or a storm drain system will be required along the north and eastern edges of the building expansion to maintain positive drainage away from the building.
- Portions of natural gas main from the edge of MD Route 202 to the central plant may require relocation and/or replacement.
- Portions of the communications and electrical duct bank will likely require relocation.
- The capacity and useful life of all utility service proposed to serve the expanded Largo Student Center will require evaluation and confirmation as part of the design by the A/E based upon the size of the building addition.

Building Structure

The Largo Student Center is a load-bearing masonry and steel-framed structure with face brick over concrete masonry at exterior walls. Structural floors are concrete and steel composite deck. Steel is not protected with fireproofing. The adhered single-membrane appears to be relatively new and in very good condition, with proper copings and flashings. A small portion of standing seam metal roofing located along the north and east sides of the building also appear to be relatively new and in good condition (except for the roof leader condition on the north side). Windows are aluminum-framed with clear single glazing.

Elevated Floor Structure

Elevated floor structure consists of concrete slab of unknown thickness over 9/16" or 1" metal form deck. The elevated floor is supported by open-web steel joists spaced at +/-2'-6" o.c. Typically, this type of construction uses a total slab thickness of +/-3". Joists are supported by wide flange steel girders, interior wide flange steel columns, and perimeter masonry bearing walls. In isolated locations away from the primary column grid, interior masonry bearing walls are used to the support the elevated structure (i.e. mechanical room 154). Except for items noted in the deficiency section, all visible structure appears to be in good, serviceable condition.

Exterior Facade

Most of the building is clad in a brick veneer supported by CMU backup. The masonry contains very few control joints which often leads to noticeable cracking in corners and in long walls. However, in this case the veneer appears to be in good condition with only minor defects and limited evidence of previous joint repairs, except at lintel locations where brick has been repaired or replaced.

Roof Structure

Roof structure consists of 1 ½" Type 'F' metal roof deck supported by open-web steel joists and wide flange steel beams. Roof beams and joists are supported by wide flange steel girders, interior wide flange steel columns, and perimeter masonry bearing walls. The sloped roof above storage room 234 is supported by 2x wood rafters. It is not apparent whether this sloped "dormer" structure is original construction or an add-on enclosure. Except for items noted in the deficiency section, all visible structure appears to be in good, serviceable condition.

Roofing

The existing roofing was installed in 2015 and is in excellent condition and warranted until 2035. The roofing is TPO (Thermoplastic Polyolefin) over 4 inches of polyisocyanurate insulation in (2) two-inch thick layers.

The TPO membrane was installed up a short parapet and under the new aluminum copings. Roof base flashings and aluminum caps were observed in good working order. The TPO roof slopes adequately to internal roof drains, which were all observed to be clear of debris.

There are two roof-mounted units serving the kitchen area as well as several exhausts and plumbing vents. These were properly flashed and in good order.

Two small sloped roof areas: one on the north end of the building and the other along the east side of the building are standing seam metal pitched to a gutter leading to downspouts at one end. These roofs are of unknown age, though observed in good condition except for one missing downspout leading from the gutter at the north roof area.

5.05 Assessment of Architectural and Structural Systems

Existing issues and deficiencies to be considered in the development of the scope of work and budget for the capital renovation/expansion project include:

- **Exterior Wall Face Brick.** As a repair strategy, the face brick has been replaced and portions of the mortar tuck-pointed at various locations above lintels, at overhangs and near copings where the brick had apparently spalled because of a lack of flashing and weeps, and no accommodation for thermal movement. Additional cracking was not observed, but the lack of proper flashing and weeps will necessitate their reconstruction if these areas remain open to the exterior. One exception is at the loading dock overhang where a bumper installed has come loose (see Photo 5.8) – likely from the moisture intrusion related to the attachment of the bumper, or perhaps impact from a truck or trailer cab.

Photo 5.8: Face Brick Repairs

- **South Façade of Cooling Tower Structure.** The masonry along this façade (that is cantilevered beyond the lower volume of the structure) shows signs of moisture intrusion (efflorescence and rusting the primary lintel). Water intrusion at the copings is the likely cause.

- **Windows.** The single-glazed, aluminum windows that appear to be original to the building are typically in fair-to-poor condition. The aluminum frames are not thermally-broken. At locations along the south wall, openings appear to be wood-framed, and in poor condition with rotting clearly visible along sill locations.

Photo 5.9: Wood Framing in Poor and Rotting Condition

- **Thermal Insulation.** Though difficult to ascertain without record documentation, in several areas where face brick has been removed, no insulation is visible, evidence that the walls are likely not insulated.

- **Grading.** In several locations, grading immediately adjacent to the building pitches toward, rather than away from, the building. At the main south entry, a trench drain was recently added to address the intrusion of water that occurs during heavy rain events. Grade along the north and east facades is not as positively pitched away from the building as it could be and may be the cause of the water intrusion currently being mitigated by the sump pump located adjacent to the large auditorium space. Additionally, the lower portion of the north and east facades has been stained by the splash from rain events. Installation of a gravel mow strip adjacent to the façade would keep soil and grass away from the building where is can be splashed up onto the exterior wall.

- **Exterior Paving, Treads.** Exterior pavers have been displaced (most probably by thermal movement and freeze-thaw cycles) creating potential tripping hazards in some locations. Metal treads installed on top of the stairs leading from the main plaza to the outdoor terrace have also come loose in several locations.

- **Exterior Exit Stairs.** The exterior stairs on the south side (from the terrace) near the main entry and at the south east toward Lanham Hall are exit stairs and should be covered to keep them from collecting snow and ice during inclement weather.

- **Missing Roof Leader.** The exterior downspout located at the northeast corner of the building is missing and stormwater from the roof has eroded grade immediately adjacent to the building.

Photo 5.10: Missing Roof Leader

- **Abandoned Equipment Support.** A platform braced against the exterior wall on the east side of the building is vacant and should be removed.

- **Outdoor Terrace.** The canopy has developed pinholes (from weathering) and should be replaced. The concrete pavement is cracked in many locations. Though some cracks have been repaired, others remain. A detailed survey should be undertaken in concert with any renovation program if the terrace is to remain largely unaltered. The canopy does not appear to be original construction (Photo 5.11). The steel trusses are anchored directly to the brick veneer which was probably not designed to support the various loading conditions (snow drift, wind, etc.) associated with a large canopy.

Photo 5.11: Outdoor Canopy with Pinholes

- **Elevators.** There are a total of two hydraulic passenger elevators. The elevators were manufactured by Dover. Each elevator has a rated capacity of 2,000 pounds and a speed of 100 fpm. The elevator machinery is located in a room adjacent to the shaft. One of the passenger elevators is designated as a service elevator. One elevator cab has vinyl-tiled floors, plastic-laminated wood wall panels, and recessed ceiling light fixtures. One elevator cab has vinyl-tiled floors, stainless steel wall panels, and recessed ceiling light fixtures. The doors are fitted with mechanical and electrical safety stops. Emergency communication equipment is provided in each cab. The machinery and controls in both elevators were upgraded in 2011. Neither of the two elevator cabs meet the dimensional requirements for accessibility required by the 2010 ADA Standards.

- The joists and deck supporting the floor above mechanical room 143 have isolated corrosion issues. The corrosion appears to be superficial and can be restored by cleaning and repainting. Slow leaks from the MEP equipment were observed. Leaks should be addressed to prevent further structural deterioration.

- **Deck Corrosion.** The structure above mechanical room 122 has widespread corrosion issues due to the high-humidity environment and active leaks from the MEP equipment. The deck is in poor condition, and in some instances, is completely deteriorated to the point where large portions of the concrete slab are visible from below (Photo 5.12). These areas will require further analysis and repair.

Photo 5.12: Visible Deck Corrosion

- **Rusted Lintels.** Some surface rust on the lintels above the windows was identified in conference room 244 and newspaper room 245. The steel should be cleaned and repainted to prevent the corrosion from progressing.

- **Masonry Out of Plane.** There is a +/-10ft length of veneer on the east face of the building, below the windows in storage room 244, that has shifted out of plane. A repair has already been performed in this location and it appears to be in good condition. The defect is notable because it could be an indication of water infiltration into the wall cavity, or settlement at the corner of the building.

- **Water Infiltration.** There are several water infiltration issues including overactive sump pumps and previous flooding in the Rennie Forum. A geotechnical investigation will reveal whether the site has a high ground water table that requires mitigation. If so, any major renovation should include measures to drain the subgrade water accumulation and redirect away from the building.

5.06 Existing HVAC Systems

The building is comprised of a variety of different spaces that serve multiple functions and requirements for both the campus and its students. Since the building was originally built, minor renovations and upgrades have occurred to the HVAC systems, however most of the buildings mechanical infrastructure is original to the building or past its rated life expectancy.

The primary HVAC system is a four-pipe chilled/hot

water system, serving multiple indoor air handling units that distribute air via ductwork across the building. More specific areas, such as the cafeteria kitchen, have dedicated HVAC equipment separate from the main chilled/hot water system.

Chilled Water

The Largo Student Center is served primarily via a 4-pipe chilled/hot water system. Currently, the chilled water is produced via a water-cooled chiller and an associated cooling tower (located outdoors adjacent to the main mechanical room that houses the chiller). The chiller is a 300-ton York Millennium Centrifugal Chiller, and the cooling tower is a 100-ton Baltimore Aircoil Company tower. The chilled water is piped to three (3) chilled water pumps (two 10-HP and one 3-HP) that distribute the chilled water to the air handling units throughout the building.

Photo 5.13: Main Mechanical Room Chiller

Photo 5.14: Main Mechanical Room Cooling Tower Located in the Yard

Photo 5.15: Chilled Water Pumps

Hot Water

There is no generation of hot water on site for the Largo Student Center. A central plant (located in the adjacent Bladen Hall Building) serving the entire campus produces steam and distributes it at low pressure to the various buildings around campus. The steam pipes for the Largo Student Center enter the building through the wall of the main mechanical room and are routed through a steam to hot water converter that produces the hot water for the building. The hot water from the converter is then piped to three (3) hot water pumps (one 5-HP and two 3-HP) that distribute the hot water to the air handling units and terminal equipment located throughout the building. There are two small natural gas hot water boilers manufactured by Rheem that are utilized only for domestic water heating. These units do not do any process or HVAC heating.

Photo 5.16: Steam to Hot Water Converter

Photo 5.17: Domestic Hot Water Boiler

Photo 5.18: Hot Water Pumps

Airside Systems

There are nine (9) indoor air handling units that serve the majority of the Largo Student Center Building. All units are Trane M-Series Climate Changer Air Handlers and are served via the chilled and/or hot water piping systems. The units are in various mechanical rooms throughout the building and are tasked with serving specific areas of the building.

AHU-1, 2 and 7: These three air handling units are in the main mechanical room on the ground floor and serve most of the building. They are served by both the chilled and hot water systems and distribute air via ductwork and terminal air diffusers. Their primary purpose is general conditioning of the building.

AHU-3: This unit is dedicated to serving the Rennie Forum space. It is located in a mechanical room adjacent to the forum. The unit is served with hot and chilled water from the main distribution system and delivers air to VAV boxes with terminal reheat that provide air through

diffusers to the forum and the surrounding support spaces. A renovation was done to Rennie Forum in 2013, and portions of the HVAC system for the hall were replaced, however AHU-3 was not replaced during that time.

AHU-4: This unit is cooling only and serves the suite of offices adjacent to Rennie Forum and the atrium. It is located in the same mechanical room as AHU-3. The unit is only connected to the chilled water system and only provides cooling for the office spaces. There are terminal reheat VAV boxes connected to the hot water system that provide the required heating if necessary and distribute the air into terminal air diffusers.

AHU-5: This unit is cooling only and serves the atrium space. The unit is in a mechanical room adjacent to the atrium space. The unit is only connected to the chilled water system and is only used for ventilating and cooling purposes. Electrical baseboard heating is located around the perimeter of the atrium to provide heating.

Photo 5.19: AHU-5 (Typical for All Air Handling Units)

AHU-6: This unit is for heating and cooling and is in the penthouse space of the Largo Student Center. The unit is supplied with both hot and chilled water to provide heating and cooling to a group of spaces located on the second floor above the atrium. The unit delivers air through ductwork directly to terminal diffusers.

AHU-8: This unit is for heating and cooling and is in the penthouse. The unit is connected to both the hot and chilled water systems, and serves three large multipurpose conference room spaces as well as a portion of the open dining area located in the middle of the building on the second floor. The unit delivers air through ductwork directly to terminal diffusers.

AHU-9: This unit is in the penthouse and is also a heating and cooling unit. The unit is connected to both the hot and chilled water systems, and serves the student government offices and adjacent spaces. The unit delivers air through ductwork directly to terminal diffusers.

Dining

The dining space is served from separate exhaust and make-up air units. Multiple CaptiveAire packaged rooftop units providing make-up air to the dining are connected via a refrigerant network to outdoor Carrier condensing units located near to the units. Large exhaust fans for general kitchen exhaust are installed as well as localized exhaust for specific kitchen equipment. Two large walk-in refrigerators/freezers are in the back of the kitchen, each with an evaporator unit connected back to the condensing units located on the roof above the dining hall.

Photo 5.20: Dining Rooftop Exhaust and Make-Up Air Units

Photo 5.21: Dining Walk-In Freezer Evaporator Unit

Exhaust Systems

In addition to the kitchen area, bathrooms, janitor's closets, back of house MEP spaces and other areas required to be exhausted by code are served via a network of rooftop exhaust fans. All ductwork is concealed above the ceiling and provides a direct connection from the ceiling return grilles of these spaces to the exhaust fans located on the roof. The ductwork is believed to be old and outdated, and beyond its useful life.

Photo 5.22: Rooftop Exhaust Fan

Building Automation System (BAS) Controls

The Largo Student Center building is equipped with a centralized building automation system (BAS) that controls most of the equipment within the building. The system is a Siemens BAS and aids in providing energy savings as well as better thermal comfort. Thermostats dedicated to the building and controlling the main air handling units are in specific locations to best provide the required heating, cooling and ventilating to each individual area. All thermostats surveyed were pneumatic and the main air compressor for the controls is in the mechanical room. Overall, the building HVAC system is in fair to poor condition. Nearly every major piece of equipment is either well beyond its rated life expectancy, will reach its rated life expectancy by the start date of the proposed project, or has been maintained and refurbished multiple times over the life of the equipment. Each of the systems above will be listed below, with a list of deficiencies included to further elaborate.

5.07 Assessment of HVAC Systems

Chilled Water

Chiller. The chiller is in fair condition but is at the end of its rated life expectancy and should be replaced. The unit also uses R-123 refrigerant, which is banned in new equipment beginning in 2020 and will be completely banned by 2030.

Cooling tower. The cooling tower is in good condition. The unit appears to have been replaced at some time in the last seven years (we have assumed that it is four years old). The tower will have remaining useful life at the time of the proposed project; however, it will have insufficient capacity for the proposed expansion of the building and will need to be replaced with a larger unit.

Hot Water

Steam to Hot Water Converter. The steam to hot water Converter is in fair condition. It is original to the building and is well beyond its rated life expectancy and should be replaced.

Domestic Hot Water Boilers. The two, small domestic hot water boilers are in good condition and can function upon regular maintenance.

Hot water piping. The hot water piping visible in the mechanical room is in poor condition. Insulation is damaged in multiple areas, exposing piping that looks original to the building. While piping concealed within the building was not observed, the same issues in the mechanical room could be prevalent in other areas of the building.

Airside Systems

Air Handling Units. The nine AHU's were all replaced at the same time and are all nearing the end of their rated life expectancy and should be replaced.

Ductwork. Various ductwork members in the mechanical spaces are damaged and contain damaged insultation. While ductwork concealed within the building was not observed, the same issues in the mechanical rooms could be prevalent in other areas of the building.

VAV boxes. The boxes are believed to be old and in need of a replacement.

Dining

Rooftop Equipment. The rooftop make-up air units and exhaust fans for the cafeteria and kitchen are in good condition and were replaced relatively recently. This equipment requires routine maintenance, but otherwise operates as intended and are well within their rated life expectancy.

Walk-in freezer. The evaporator for the walk-in freezer and refrigerator are over 40 years old and are well beyond their rated life capacity and should be replaced.

Exhaust Systems

Ductwork: None of the exhaust system ductwork could be visually observed and is concealed above the ceiling, however the ductwork system is original to the building and could have issues.

Exhaust fans: All rooftop fans were observed to be in fair condition.

Table 5.1: Building Equipment List

TAG	DESCRIPTION	MANUFACTURER	MODEL #	CONDITION	DATE IN SERVICE	AGE AS OF		LIFE		
						2018	2021	RATED USEFUL	REMAINING AS OF 2018	REMAINING AS OF 2021
	Chiller	York	ytg1a282-cjh	Fair	1992	26	29	23	-3	-6
	Cooling Tower	Baltimore Air Coil		Good	2014	4	7	15	11	8
CWP-1	Chilled Water Pump	Century	sc256ukaa-6	Fair	1980	38	41	20	-18	-21
CWP-2	Chilled Water Pump	Century	sc256ukaa-6	Fair	1980	38	41	20	-18	-21
CWP-3	Chilled Water Pump	Lincoln	182T	Fair	1998	20	23	20	0	-3
CWP-4	Chilled Water Pump	US Electric	215T	Poor	1993	25	28	20	-5	-8
HWP-1	Hot Water Pump	US Electric	182T	Poor	1998	20	23	20	0	-3
HWP-2	Hot Water Pump	Leland Faraday	M24030	Poor	1993	25	28	20	-5	-8
HWP-3	Hot Water Pump	US Electric	184T	Poor	1993	25	28	20	-5	-8
	Condensate Return Pump	Baldor		Fair	2008	10	13	18	8	5
AHU-1	Air Handling Unit	Trane	mccb008ua0a0ua	Fair	2003	15	18	20	5	2
AHU-2	Air Handling Unit	Trane	MCCB017UA0A0UB	Fair	2003	15	18	20	5	2
AHU-3	Air Handling Unit	Trane	mccb010ua0a0ua	Fair	2003	15	18	20	5	2
AHU-4	Air Handling Unit	Trane	mccb010ua0a0ua	Fair	2003	15	18	20	5	2
AHU-5	Air Handling Unit	Trane	mccb012ua0a0ua	Fair	2003	15	18	20	5	2
AHU-6	Air Handling Unit	Trane	MCCB017UA0A0UB	Fair	2003	15	18	20	5	2
AHU-7	Air Handling Unit	Trane	mccb030ua0a0ua	Fair	2003	15	18	20	5	2
AHU-8	Air Handling Unit	Trane	mccB025UA0A0UB	Fair	2003	15	18	20	5	2
AHU-9	Air Handling Unit	Trane	mccB010UA0A0UB	Fair	2003	15	18	20	5	2
	Rooftop Package Unit	Carrier	48TCED09A2A6A0B2C0	Good	2011	7	10	15	8	5
	Rooftop Package Unit	Captive Air	D76	Good	2011	7	10	15	8	5
	Rooftop Package Unit	Carrier	48TCED09A2A6A0B2C0	Good	2011	7	10	15	8	5
	Rooftop Package Unit	Captive Air	A4-D.1000-920	Good	2011	7	10	15	8	5
	Rooftop A/C Cooling Only	Carrier	50TFF004-A-511	Fair	2004	14	17	15	1	-2
	Rooftop Air Heater	Captive Air	A1-D250-G10	Good	2011	7	10	15	8	5
	Exhaust Fan	ACME		Fair	1998	20	23	20	0	-3
	Exhaust Fan	Captive Air	NCA16FA	Good	2011	7	10	20	13	10
	Exhaust Fan	Captive Air	DU85HFA	Good	2011	7	10	20	13	10
	Exhaust Fan	Penn	FMX50B	Fair	2001	17	20	20	3	0
	Exhaust Fan	ACME	PV1201	Fair	1998	20	23	20	0	-3
	Exhaust Fan	Barry Blower	WJV20A	Fair	1985	33	36	20	-13	-16
	Exhaust Fan	Dayton	3C276C	Poor	1985	33	36	20	-13	-16
	Exhaust Fan	ACME	No Data	Fair	2002	16	19	20	4	1
	Exhaust Fan	ACME	XB161	Fair	2002	16	19	20	4	1
	Exhaust Fan	COOK	No Data	Fair	2003	15	18	20	5	2
	Domestic Water Boiler	Rheem/Ruud	No Label	Fair	1993	25	28	15	-10	-13
	Domestic Water Boiler	Rheem/Ruud	No Label	Fair	1993	25	28	15	-10	-13
	Steam Hot Water Heater	Stonesteel	v190swh624	Fair	2000	18	21	25	7	4
	Emergency Generator	Kohler	100rz282	Fair	1987	31	34	15	-16	-19

Equipment nearing its useful life

Equipment past its useful life

The Largo Student Center project is proposed to start construction in 2021 and complete and complete construction in 2023. By 2023, the majority of equipment will be past their useful life. A list of building equipment and their remaining useful life is included as table 5.1.

5.08 Existing Plumbing Systems

Domestic Water System
The plumbing services to the building were installed during the original construction of the building and have not yet been modified. The water meter is in a vault. Water service piping appears to be a combination of schedule 40 steel and copper. Given that the building was constructed in 1975 the solder used on the copper domestic water piping throughout the building would have been 50/50 tin/lead.

Domestic hot water is generated by a combination of a steam source domestic water generation and gas fired water heaters. A domestic hot water shell and tube heat exchanger uses steam provided by the central plant to generate domestic hot water. Water is circulated by pumps between a storage tank and the heat exchanger. Whenever central plant steam is not available, or when commanded by the building operator, two natural gas fired water heaters, each rated 586 MBH, produce domestic hot water in lieu of the steam source heat exchanger. The gas fired water heaters are standard efficiency type units.

Sanitary, Drain, Waste, and Vent (DWV) System
The sanitary and DWV system is original to the building's construction. Below grade piping is assumed to be standard weight cast iron piping with bell and spigot connections given when it was constructed. Above grade piping is hubless cast iron.

Storm Water System
The storm water system is an interior drainage system using roof drains and interior leaders draining to below slab pipes leading to the building drain and storm sewer. The materials using in the storm system are the same as the sanitary.

Natural Gas System
The building is provided with a natural gas service with a meter and building regulator located along the exterior wall. The gas distribution system inside the building is low pressure. The piping is schedule 40 steel with threaded joints.

Plumbing Fixtures
The toilet rooms appear to have been renovated just prior to 2011. Water closets are floor mounted white vitreous china type with 1.6 gpf manual flush valves. Urinals are wall hung white vitreous china type with 1.0 gpf proximity actuated flush valves. Lavatories have bowls that are integral cast into the synthetic solid surface counter top. Faucets are proximity actuated type. These units require replacement of batteries every three years. All toilet rooms are provided with floor drains. Electric water coolers appear to be a mix of units of different styles and different ages, typically placed with two side by side at the same elevation.

5.09 Assessment of Plumbing Systems

Domestic Water System
The existing copper piping is provided with lead based soldered joints. These should be eliminated under the proposed project. The incoming service may continue to be reused and appears to have adequate capacity. The existing standard efficiency natural gas fired water heaters are reported to be in good working condition; however, given their relatively low operating efficiency coupled with their age, these units should be replaced with high efficiency condensing type natural gas fired water heaters. The steam source domestic hot water heat exchanger and storage tank are in work order and can remain as a back-up during the heating season; however, there is no functional need to retain this equipment or expend monies to continue to maintain them.

Sanitary, Drain, Waste, and Vent (DWV) System
The sanitary and DWV system is original to the building's construction as at present is 43 years in age. Piping system generally are rated at 50 years of useful life; however, cast iron drainage systems often last much longer. Some blockages have been reported; however, no physical assessment of the interior or wall thickness of the piping condition has been made. The below grade piping should be examined with a camera during the early design phases of the proposed project to confirm its condition for continued use. The above grade piping will need to be significantly reconfigured for the proposed project, and given its age the complete extent of the above grade piping should be replaced while the opportunity presents itself.

Storm Water System
The storm water system has been reported to have occasional blockages. The same recommendations as for the sanitary system apply to the storm system.

Natural Gas System
The natural gas service line is expected to have some reserve capacity; although this assessment will ultimately rest with Washington Gas. A service heavy-up will be required for the proposed project and the replacement of the meter and building regulator is expected. While the gas piping is in good condition, the anticipated changes to the mechanical and kitchen systems will require a significant reconfiguring of the gas piping. The capacity of the existing piping can be increased, and the installed cost of new piping can be decreased by converting the system to a 2 psig distribution system.

Plumbing Fixtures
The toilet rooms generally have a good modern appearance. While the water closets are in good condition and can continue to be used, the 1.6 gpf flush valves do not meet current water conservation goals. These should be replaced with dual flush volume valves Similarly, the urinals can continue to be reused but should be retrofitted with pint flush valves. The lavatories do appear to meet current water conservation standards and can continue to be reused. The electric water coolers do not comply with ADA requirements and should be replaced.

5.10 Existing Fire Protection Systems

The Largo Student Center is currently provided with an existing wet-pipe sprinkler system, fire alarm system, and portable fire extinguishers.

The existing wet-pipe sprinkler system extends throughout all areas of the Largo Student Center. The incoming fire protection service, backflow preventer, and sprinkler riser are located within mechanical room 122. The backflow preventer test connection is located on the exterior wall outside of mechanical room 122. The sprinkler system fire department connection is located on the exterior of the building near the loading dock area.

Portable fire extinguishers are located throughout the building. The kitchen area is protected with an existing Ansul wet agent chemical extinguishing system.

Photo 5.23: Backflow Riser and Sprinkler Riser

5.11 Assessment of Fire Protection Systems

The existing wet-pipe sprinkler system appears to be well maintained and in good condition. The sprinkler system provides adequate coverage throughout all areas of the building with no visible leaks or corrosion. Inspection tags on the portable fire extinguishers and Ansul extinguishing system are up to date and the equipment appears to be in working condition.

The fire department connection for the wet-pipe sprinkler system is in a less than ideal location. The configuration of the nearby parking lot and lack of identification could potentially reduce fire department access to the connection.

Sprinkler heads in some areas were not provided with escutcheon plates.

Photo 5.24: Missing Escutcheon Plates

Fire protection systems should be inspected, maintained and tested on an annual basis or as required by NFPA standards by a qualified agency approved by the authority having jurisdiction.

Photo 5.25: Fire Protection System Inspection Records

The maintenance should include inspection of supporting mechanical systems and lubrications/adjustments of mechanical/electrical devices as recommended by the manufacturer.

Portable fire extinguishers should be inspected, replaced or recharged on an annual basis.

Photo 5.26: Existing Fire Extinguishers

The backflow preventer test header connection is in a less than ideal location. The connection is located adjacent to mechanical and electrical equipment, which could be at risk during a test if a leak were to occur. It is recommended to relocate the test connection to an area that is free of nearby equipment.

Photo 5.27: Backflow Preventer Connection Location

5.12 Existing Electrical and Lighting Systems

Electrical Service
The Electrical System for the Largo Student Center has is provided with an underground electrical service from the existing 13.8 KV campus distribution system using a 750 KVA pad mounted transformer located on site. The campus system is feed from a PEPCO substation and incoming Pepco service. The Building Utilization Voltage (BUV) is voltages 480Y277 Volt, 3-Phase, 4-wire. This service is entering to the building via an underground secondary ductbank pad mounted transformer located adjacent to the building feeding and terminates in a CT section which is incorporated into the building's main switchboard located in the Main Electrical Room. There are branch circuit panels located throughout the building getting fed from the main switchboards located in the main Electrical room.

Electrical Power Distribution System
The existing Fire Alarm System is an addressable by ATS located on the first floor. The existing main incoming telephone and data service is in the telephone room. Two data racks feeding the building are provided with CAT5 patch cables. All existing lighting fixtures are fluorescent type with T8/T5/T12 lamps. The existing lighting controls are toggle switches provided throughout the building. The existing public address and clock system is equipped with speakers throughout the building.

The existing electrical service to the building is supplied by PEPCO via pad mounted transformer. The transformer's

secondary voltage is 480Y/277V, 3-phase, 4-wire. The main switchboard is rated for a 1600 Amp service and has a disconnect switch. This switchboard feeds all 480Y277 volt panelboards and motor loads as well as a 225 KVA dry transformer, also located in the Main Electrical Room. This dry transformer has a secondary voltage of 208Y120 Volt 3-phase, 4-wire and feeds the building's other switchboard, which is rated at is 208V rated for 800A and has an 800 Amp service disconnect switch. The main electrical room houses the CT cabinets for the incoming service, switchgear, utility meters, as well as Emergency load. The switchboard rated for 800A fed from 1600A, 480V switchboard via 225 KVA transformer. The Main Mechanical Room's motor loads are feed from a 480Y277 Volt motor control center.

All emergency loads are fed from the existing 100 KW 208Y120 volt 3-phase, 4-wire emergency natural gas Kohler Generator located adjacent to the building. This existing generator currently feeds Bladen Hall, Queen Anne and Largo Student Center buildings' emergency life safety loads. The Queen Anne Fine Arts Building will be removed from this generator when the building is fully renovated and construction is complete. The generator is provided with a wiring trough with three automatic transfer switches (ATS's), one for each of the buildings. The Largo Student Center ATS is wired to a 75 KVA buck boost (or step-up) transformer with a secondary voltage of 480Y277 Volt, 3-phase, 4-wire, which then feeds a 100 amp emergency power panelboard. Both the buck boost transformer and the emergency panelboard are in the Main Mechanical Room (#122).

Lighting Systems
All existing lighting fixtures are fluorescent type with a mix of T12, T8, and T5 lamps. The majority of the existing light fixtures in the enclosed finished spaces rooms are mostly 1'X4' and & 1'x8' recessed mounted ceiling fixtures with fluorescent T5 lamps and prismatic lenses. These T5 fixtures are a combination of existing fixtures that have been retrofitted and new fixtures that have been installed to replace existing fixtures.

Community Rooms are equipped with recessed mounted ceiling fixtures with fluorescent T5 lamps and prismatic lenses. Existing fixtures in common areas and corridors and other circulation spaces are provided with recessed mounted 2'X2', U tube fixtures with fluorescent T12 lamps and prismatic lenses. There are also a few ceiling mounted spot lights in the main lobby.

Lighting fixtures in the storage areas and toilets are surface mounted 1'X4' fixtures with fluorescent T12 lamps and prismatic lenses. Lighting fixtures in the mechanical spaces are industrial type pendant and surface mounted 1'X4' and 1'X8' fixtures.

In the kitchen and cafeteria area recessed 2'X4' fixtures with T812 lamps and prismatic lenses are provided. Theatrical lighting with dimming control is provided for the Forum (theater).

Manual wall toggle switches are used to control the existing lighting in most different locations throughout of the building. Manual dimming switches have been provided to control the lighting in the Community multi-purpose Rooms.

Ceiling/wall mounted exit lights with battery back-ups are used at the exit doors and exit pathways. All interior lighting circuits are controlled via single-pole toggle switches.

Double-head wall mounted fixtures with back-up batteries are used for emergency lighting in egress pathways. Ceiling/wall mounted exit lights with battery back-ups are used at the exit doors and exit pathways. In some locations, combination exit lights with double-head emergency fixtures are installed. These fixtures are also equipped with back-up batteries.

Public Address System
The building is provided with a public address system equipped with the speakers.

Lightning Protection System
The building is not provided with a lightning protection system.

PCB Transformers
There are no PCB transformers located on campus.

5.13 Assessment of Electrical and Lighting Systems

The 1,600 amp 480Y277 Volt switchboard has insufficient capacity to support the expansion of the building. The switchboard does not appear to be original to the building Power Distribution system and appears to be in good working order. It may be possible to reuse this gear and add additional gear as required. The situation is the same for the 800 amp 208Y277 Volt switchboard. The motor control center (MCC) appears to be in good working order; however, the anticipated changes to the mechanical system in the proposed project will require significant enough modifications to the MCC that complete replacement of the gear will be the most cost-effective solution.

While some of the branch circuit panels have been replaced at some point in the recent past (these being the Square D distribution panels) most of the distribution

panels are original to the building, are obsolete, and need to be replaced (these being the Federal Pacific panels).

No portion of the existing distribution system is provided with surge suppression. The building is provided by two 3-phase voltage systems: 480Y/277V and 208Y/120V. The electrical panels or receptacles feeding the surge sensitive loads such as computers are not provided with the surge protector at the panels or at the receptacles. Surge protection should all be provided in a tiered configuration, starting at the switchboards, on the distribution panels, and at the point of use, to avoid the damage of the loads from the unknown surge to user equipment. There are few panels observed with the cloth type insulation on the branch circuit wiring. In these instances, the wire insulation was deteriorated and worn out. All circuits with this type of these branch circuit wiring should all be replaced per current National Electrical Code requirements. Existing panels can be reused.

Emergency Power
The existing building is provided with a 100 KW nominal 208/120 volt, 3 phase Generator. The generator appears to be in good condition. From the existing condition survey, a transformer rated 75 KVA, 208V to 277/480V is fed from this Generator via exterior mounted ATS for Largo Student Center building's emergency loads. The existing emergency power load is not tabulated on the existing documents and needs to be determined. The generator may not be sufficient to support emergency heating operations of the proposed addition's Energy Recovery Unit(s) per current design standards. Current local code requires that the life safety related equipment must be housed in a two-hour fire rated room dedicated to the emergency power distribution equipment and isolated from the normal power equipment. The distribution system will need to be reconfigured for compliance with this requirement.

Lighting System
Existing light fixtures in the building have an assortment of different types of T8 fluorescent lamps. Light fixtures in the building are mostly old and their efficiency is low compared with LED sources. There is no multi-switching for controlling light fixtures and control devices such as occupancy sensors or photo sensors for efficiently controlling lighting (as well as for current code compliance) are not provided. All the lighting fixtures should be replaced with LED fixtures. Existing wiring for lighting systems is old and should be replaced.

Public Address System
The existing speakers are not working. The exact source of the problem (whether it is the speakers or the equipment) is unknown. Most of the clocks are not working, and the clocks that do work are no longer being synchronized. The PA system is beyond its rated useful life and needs to be replaced.

Lightning Protection System
The building lacks a lightning protection system. It is anticipated that a lighting protection risk assessment calculation would indicate that a lighting protection system should be provided. This risk assessment should be conducted in the upcoming proposed project.

5.14 Existing Fire Alarm System

The Largo Student Center is provided with a building fire alarm system dedicated to occupant notification, elevator recall functions, sprinkler system monitoring, Ansul system monitoring, and HVAC shut down. The fire alarm system consists of a main fire alarm control panel, NAC booster panels, notification appliances, pull stations, ceiling smoke detection, duct smoke detection, sprinkler monitoring, Ansul system monitoring, elevator shunt trip and monitoring, and a graphic annunciator panel.

The upgraded Fire Alarm System is addressable and manufactured by Gamewell FCI, with the digital communication transmitter.

The Fire Alarm panel is located within the mechanical / electrical closet on the first floor of the building. The building graphic annunciator panel is mounted in the main entrance vestibule on the first floor. Pull stations, and notification appliances are located throughout the building. Smoke detection is provided for all elevator lobbies and on the supply and return ducts for all mechanical units in the building.

System wiring is concealed in metallic raceway. Conduit appeared to be adequately supported and electrical boxes had covers.

5.15 Assessment of Fire Alarm System

The fire alarm system in the Largo Student Center is in good condition. The fire alarm system should be inspected, maintained and tested on an annual basis or as required by NFPA standards by a qualified agency approved by the authority having jurisdiction.

Photo 5.28: New Fire Alarm Pull Station

Photo 5.29: New Fire Alarm Strobe

Photo 5.30: Not In Use Fire Alarm System

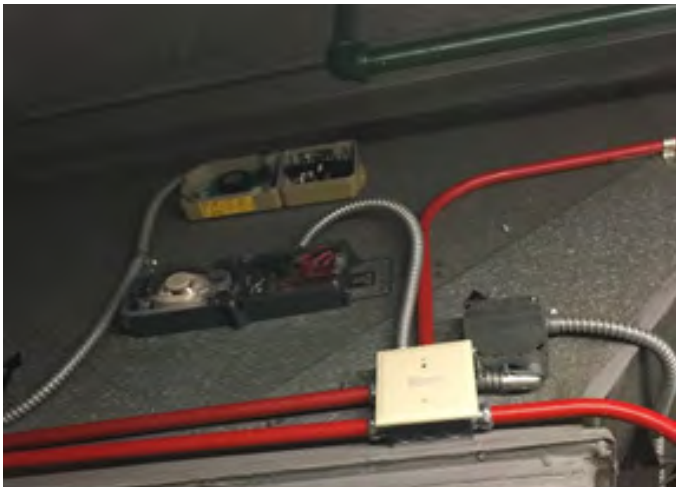


Photo 5.31: Not In Use Fire Alarm System

5.16 Existing Technology Systems

Like most buildings on the Prince George's Community College campus, the Largo Student Center is supported by a variety of technology systems, including a variety of cabling, security, and audio-visual systems. As this building is over 40 years old, it has been "retrofitted" over the years to keep with the changes in technology, as well as the continuing emerging college technology standards.

5.17 Assessment of Technology Systems

Pathways and Spaces

The Largo Student Center is connected to the campus backbone via conduits that enter the 2-story building through a First Floor Mechanical Equipment Room (143). Two (2) 4-inch conduits terminate in a large pull box mounted to the wall. The conduits then continue to the west and up to the lone telecommunications rooms on the Second Floor (adjacent to Room 241). All backbone cables from the campus networks use this pathway to provide a connection of the users in the Largo Student Center.

Photo 5.32: First Floor Mechanical Room

Photo 5.33: Second Floor Telecom Room

The entire building is served by a telecommunications room on the Second Floor. The room is long and narrow, not the ideal size and shape for today's telecommunications rooms. Due to a lack of storage in the building, both the entrance location and the telecommunications room have a lot of clutter, with boxes, chairs, HVAC filters, etc. blocking easy access and passage. Backbone and horizontal cables supporting data, voice, and video services route from their device locations to this room.

As the College moves forward with the program for renovating the Largo Student Center, it is recommended that new telecommunications rooms be developed that are properly sized and located. These rooms should be equipped with access controls (lock and card reader) so that they be controlled for their intended use.

Cabling System

The cabling systems that are currently installed in the Largo Student Center consist of optical fiber cable (primarily supporting data communications), copper cable (primarily supporting analog voice communications), and coaxial cable (supporting video communications). As part of the college cabling standard, air-blown fiber (ABF) cable is used to provide the connections to the network to support data communications requirements. Like many of the buildings on campus, there is a primary and secondary ABF bundle that is installed in primary and secondary tube cables (pathways for the ABF fiber cables). These use the conduits described above to connect the Largo Student Center Second Floor telecommunications room to the Data Center located on the Third Floor (Room 3404) of the Center for Health Studies building.

Photo 5.34: Primary/Secondary TDU's

Photo 5.35: Copper Cable Termination Field

Traditional copper cable is also installed from the Center for Health Studies building through the same pathway to the Largo Student Center. A 100-pair copper cable routes from through this pathway to the telecommunications room on the second floor. Also, an older 600-pair copper cable terminates to a small room on the west side of the First Floor (Room 109). For the most part, this cable provides analog telephone services (emergency phones, elevator phones, etc.) to the building. Like the other telecommunications spaces, this space is also cluttered with garbage bags, cans, chairs, etc. that could create issues with the terminated cables.

Throughout the Largo Student Center, there are many Category 5 (older) and Category 6 (newer) horizontal copper cables (for data, voice, wireless, cameras, etc.), as well as RG-6 horizontal coaxial cables (for TV) installed from device locations to the telecommunications room on the second floor. These cables provide appropriate connection to the different campus networks. As the only telecommunications rooms is on the Second Floor, most cables (some analog voice cables are terminated in a phone room on the first floor) from the First Floor are routed to the telecommunications room on the second floor. Also, some cables are not appropriately supported above the ceiling. Rather, they lay on the ceiling grid or tiles rather than being properly supported from the structure above with J-hooks or cable slings.

While the horizontal cables throughout the facility provide acceptable connectivity to the devices they support, the college should consider upgrading to newer Category cables (i.e. Category 6A), especially for wireless communications.

Voice and Data Systems

Most of the Largo Student Center is fully integrated into the campus voice, data, and wireless systems. Most voice services are part of the Avaya Communication Manager S8800 Server with G450 media gateways. This hybrid system provides Voice over Internet Protocol (VoIP), digital, and analog services to users throughout campus. As this is part of the overall data network, the core equipment is in the Data Center in the Center for Health Studies building. Most wired data services in the building are part of the Juniper Networks system on campus, with Juniper Networks EX4200-48PX edge switches providing most of the connectivity. Wireless data is supported by indoor and outdoor access points by Aruba Networks. Avaya, Juniper, and Aruba are all “top tier” manufacturers of voice and data equipment used by the College.

There are two (2) “standalone entities” in the Largo Student Center the college uses outside staff to manage (the Bookstore and the Dining Hall). The Bookstore has its own small telephone system (key system). Data in the Bookstore is provided by Comcast through a cable modem. The Dining Hall uses college telephones, but has its own data service provided by Verizon (FiOS) through the Verizon campus Point-of-Presence in Kent Hall. The College is currently evaluating the use and correct mixture of outside staff versus college staff and student run facilities. With the changes in the proposed dining hall, it is foreseeable that college staff and students will take on a greater role in operating the facility.

Physical Security Systems

Physical security systems are designed to protect students, faculty, the facility, and equipment in and around a building. These systems usually consist of access control, intrusion detection, and video surveillance. The existing security system control panel is located on the second-floor telephone room. Existing system is manufactured by Pelco.

The access control portion of the overall system provides the control of access to specific spaces in a facility, usually by deploying card readers. At present, there are only two (2) areas were card readers are installed, namely on the two (2) AV booths in the building. To uphold college standards, the college must expand access control to all building areas, including offices, suite entries, conference rooms, support spaces, storage rooms, dining, entry doors, telecom rooms, electrical room, mechanical rooms, etc. In addition to the card readers themselves, other components of the access control system include reader interfaces, controllers, door position switches and request-to-exit devices and power supplies that can be used to monitor doors throughout the facility.

Video surveillance cameras (and associated software) provide situational awareness, as well as some level of

facial recognition within buildings and around buildings on today's college campuses. Existing interior security cameras are not in good condition. Security cameras may need to be replaced. It is unclear at this time if these cameras (and system) will need to be upgraded as part of the renovation project.

Photo 5.36: Security Camera Terminations

5.18 Existing A/V Systems

Within the last 5 years, the College has invested in audio-visual equipment in a few spaces. This equipment and supporting systems mostly support the Rennie Forum on the First Floor and the Multi-Purpose / Conference Rooms on the Second Floor. These AV systems are generally in good condition are a good technology for the current requirements of the college and the spaces within the building, although not on the cutting-edge of today's technology. Projection systems, for example, are WUXGA, which is currently the most predominant resolution and supports high-definition video. However, 4K or UHD will likely be more prevalent at the time of the completion of the building renovation. Video switching is performed by Crestron and Extron switchers, which are capable of supporting today's video resolutions, but are not likely able to support 4K resolution.

Photo 5.39: AV Booth Projector

5.19 Assessment of A/V Systems

The audio systems use a combination of loudspeakers, QSC amplifiers, wireless microphones, and digital mixing and signal routing equipment. The amplifiers and speakers are not as sensitive to technology advances, but may be due for a refresh by the time the renovation completes or may not be suitable for use in a different architectural design. The wireless microphones are serviceable. However, changes to the spectrum allocation may affect the current wireless microphones. Certainly, changes in the digital technology over the next several years will occur, and the college will need to upgrade the microphones as part of a technology refresh. The Allen & Heath digital mixing console (GLD 80) is not the current model (GLD 280) but still contains all the basic technology of the newer model.

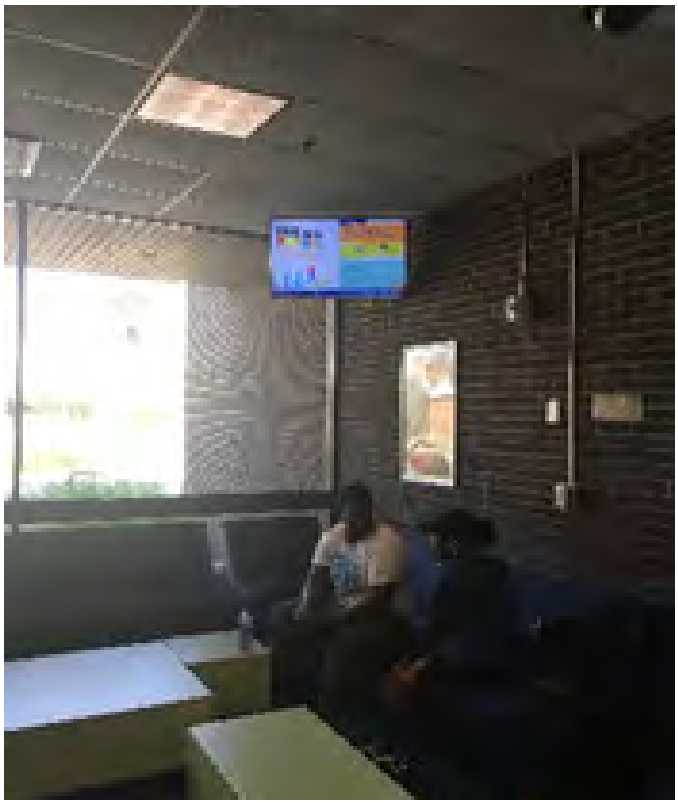
Photo 5.40: Audio Systems Rack

Photo 5.41: Digital Mixing Console

In the Rennie Forum, there are LED ellipsoidal reflector spot lights. These are believed to be a single-color device, since many were equipped with what appeared to be a color scroller. LED fixtures are state-of-the-art, and the single-color type is often used (if using the correct color temperature), because of its ability to be mixed with conventional tungsten fixtures.

One area lacking is the use and distribution of digital signage. While flat screen displays are in certain gathering areas, they do not always operate properly, and are not properly sized. The College is currently reviewing the use of digital signage throughout the campus to better align with facility best practices.

Photo 5.42: Digital Display



Distributed Antenna Systems

Largo Student Center does not appear to have a Distributed Antenna System (DAS), sometimes referred to as in-building wireless or IBW. These systems are used to provide wireless connections for cellular telephones, public safety radios, and emergency responder radios when the building construction otherwise blocks these signals. Depending on how the renovation is designed, the college may need to investigate the use of a DAS to allow these systems to appropriately operate within the building.

PART II
PROJECT JUSTIFICATION AND SCOPE

SECTION 6:
Building and Site Photo Log

Photo 1: *South elevation*

Photo 2: *South elevation facing courtyard*

Photo 3: *West elevation facing courtyard*

Photo 4: *East elevation*

Photo 5: *North elevation*

Photo 6: *North elevation showing loading dock*

Photo 7: *East elevation - stair into Rennie Forum sump pump room*

Photo 8: *Bridge connector from Largo to Lanham*

Photo 9: *South elevation - connection with Quad B Plaza*

Photo 10: *Dumpsters located next to loading dock*

Photo 11: *South elevation - interior connector with Bladen Hall*

Photo 12: *Trees and lawn on east side of building*

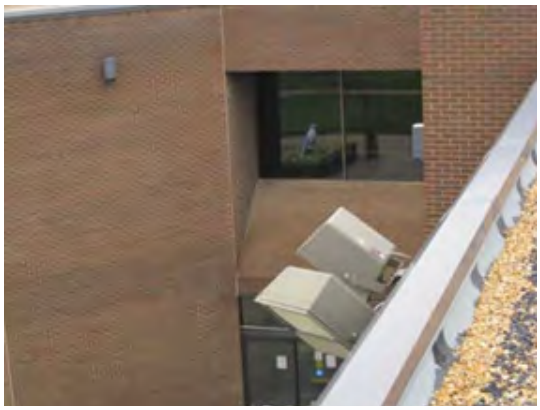


Photo 13: *Lights surfaced-mounted on exterior walls*

Photo 14: *Second floor patio on south side of building*

Photo 15: *Second floor terrace leading to Lanham Hall*

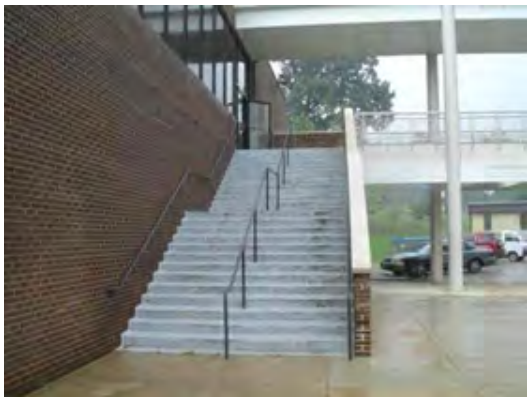


Photo 16: *Exterior stairs on the southeast corner of building*

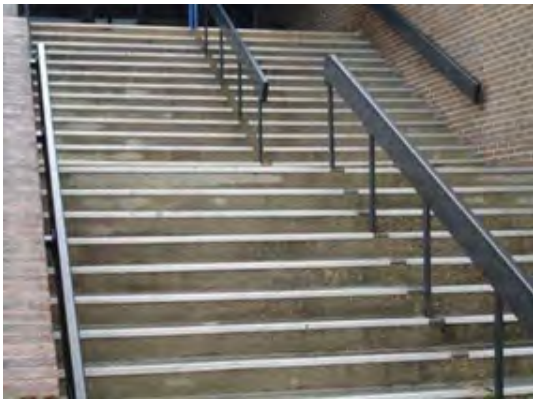


Photo 17: *South exterior stairs adjacent to second floor patio*

Photo 18: *North parking lot - Lot L*

Photo 19: *TPO Roof and Access Ladder*

Photo 20: *Rooftop Mechanical Equipment*

Photo 21: *Quad B Plaza*

Photo 22: *South elevation - main building entrance*

Photo 23: *Exposed superstructure in upper level mechanical room*

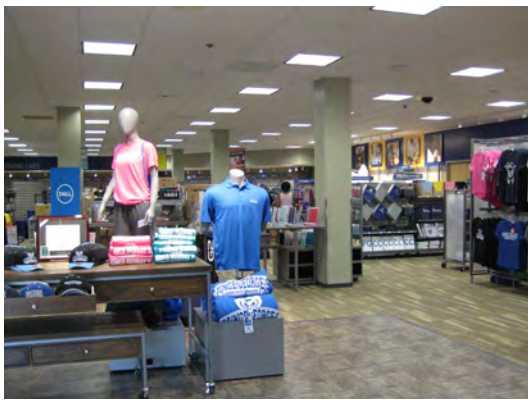


Photo 24: *College Bookstore*

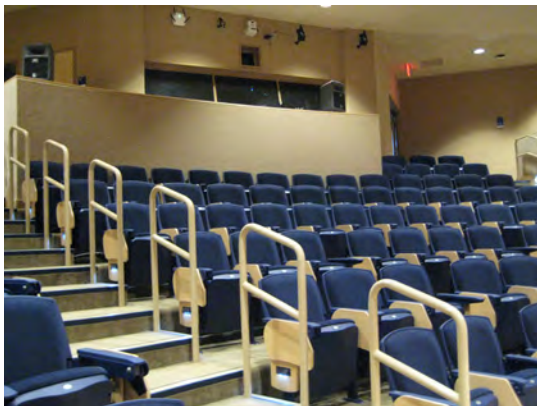


Photo 25: *Rennie Forum - post renovation*

Photo 26: *The Hollow Tree lounge located on first floor*

Photo 27: *Student lounge in Bladen Hall connector*

Photo 28: *Print Shop on first floor*

Photo 29: *First floor restrooms - post renovation*

Photo 30: *First floor restrooms - post renovation*

Photo 31: *Elevator lobby on first floor*

Photo 32: *Interior stairs near main entrance*

Photo 33: *Upper level student lounge*

Photo 34: *Cafeteria located on second floor*

Photo 35: *Rear of cafeteria*

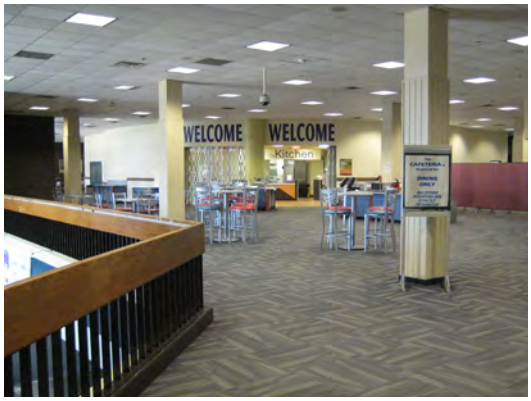


Photo 36: *Main Dining Area on second floor*

Photo 37: *Conference Room 3*

Photo 38: *Conference Room 6*

Photo 39: *Community Room A*

Photo 40: *Community Room B*

Photo 41: *Rennie Forum - sump pump*

Photo 42: *Accessible Urinal*

Photo 43: *Second floor men's restroom*

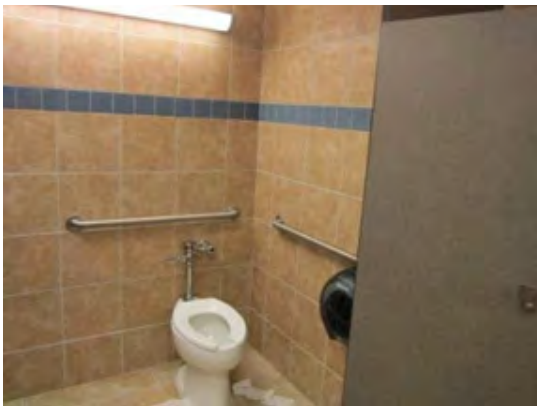


Photo 44: *Accessible stall in second floor men's restroom*

Photo 45: *Public pay phones on first floor*

Photo 46: *Campus emergency phone*

Photo 47: *Rooftop package unit*

Photo 48: *Rooftop package units*

Photo 49: *High capacity air handling unit*

Photo 50: *Building automation system*

Photo 51: *Hot water unit heater*

Photo 52: *Chilled water pumps*

Photo 53: *Damaged chilled water pipe insulation*

Photo 54: *Hot water pump*

Photo 55: *Chiller*

Photo 56: *Damaged ductwork on AHU-2*

Photo 57: *Cooling tower*

Photo 58: *Safety hazard on cooling tower. Fan guards are removed with fans running.*

Photo 59: *Condensate return pump*

Photo 60: *Steam water heater*

Photo 61: *Domestic water boiler*

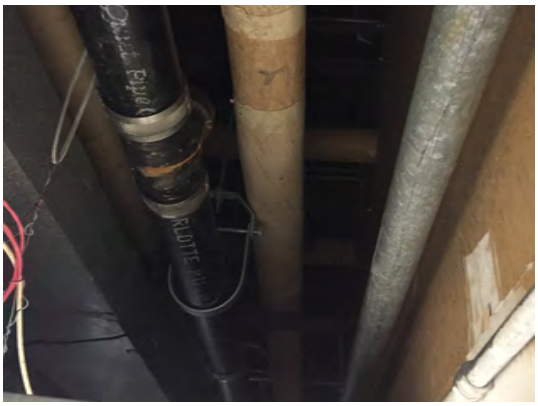


Photo 62: *Mechanical piping chase*

Photo 63: *Natural gas meter and regulator*

Photo 64: *Emergency generator*

Photo 65: *Rusting conditions on emergency generator*

Photo 66: *Pacific Electric panel with missing front shield & exposed wiring in room 241*

Photo 67: *Pacific electric motor control center panel*

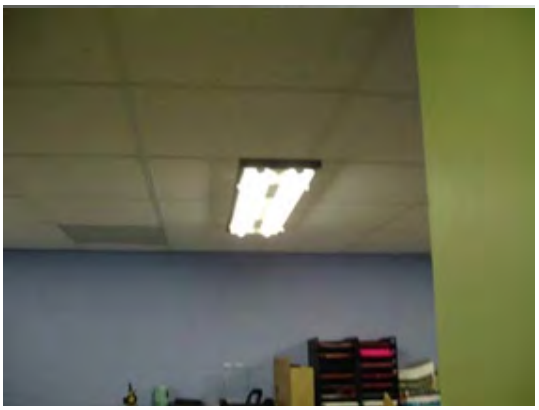


Photo 68: *T-12 lighting*

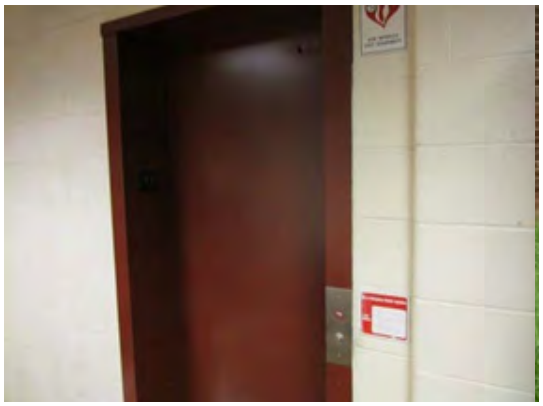


Photo 69: *Kitchen elevator*

Photo 70: *Main elevator*

Photo 71: *Water coolers*

Photo 72: *Sprinkler risers*

Photo 73: *Overcrowded student lounge space / lack of space*

Photo 74: *Extinguishers located throughout*

Photo 75: *Serious fall hazard at roof hatch*

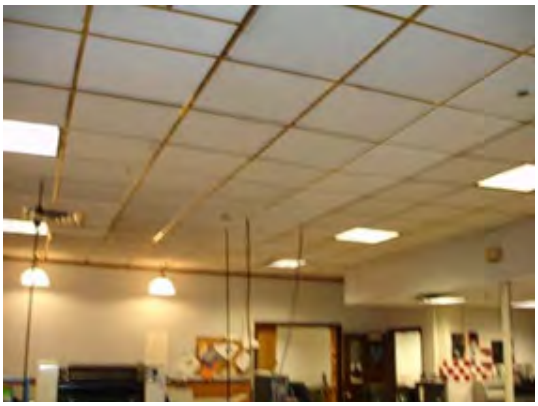


Photo 76: *T-12 lights should be replaced by T-8s*

Photo 77: *Exit signs should be replaced by LED exit signs*

Photo 78: *Loose exterior stair treads*

Photo 79: *Directory sign from building entrance from the courtyard*

Photo 80: *Student activities display case. Award plaques mounted directly on brick wall.*

Photo 81: *Copying and duplicating*

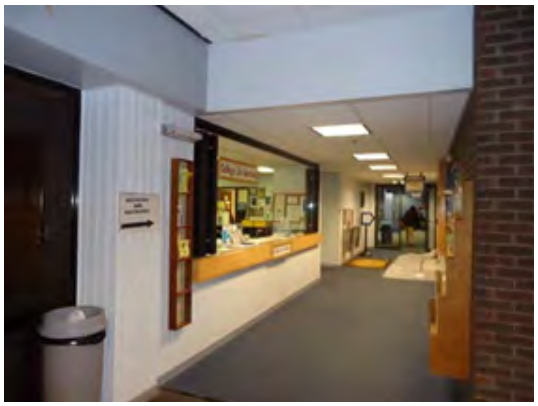


Photo 82: *Student activities counter.*

PART II
PROJECT JUSTIFICATION AND SCOPE

SECTION 7:
Site Development Criteria and Requirements

The purpose of this section is to outline the site development criteria and requirements for the project. The information provided is intended to supplement the A/E Consultant's own site evaluation.

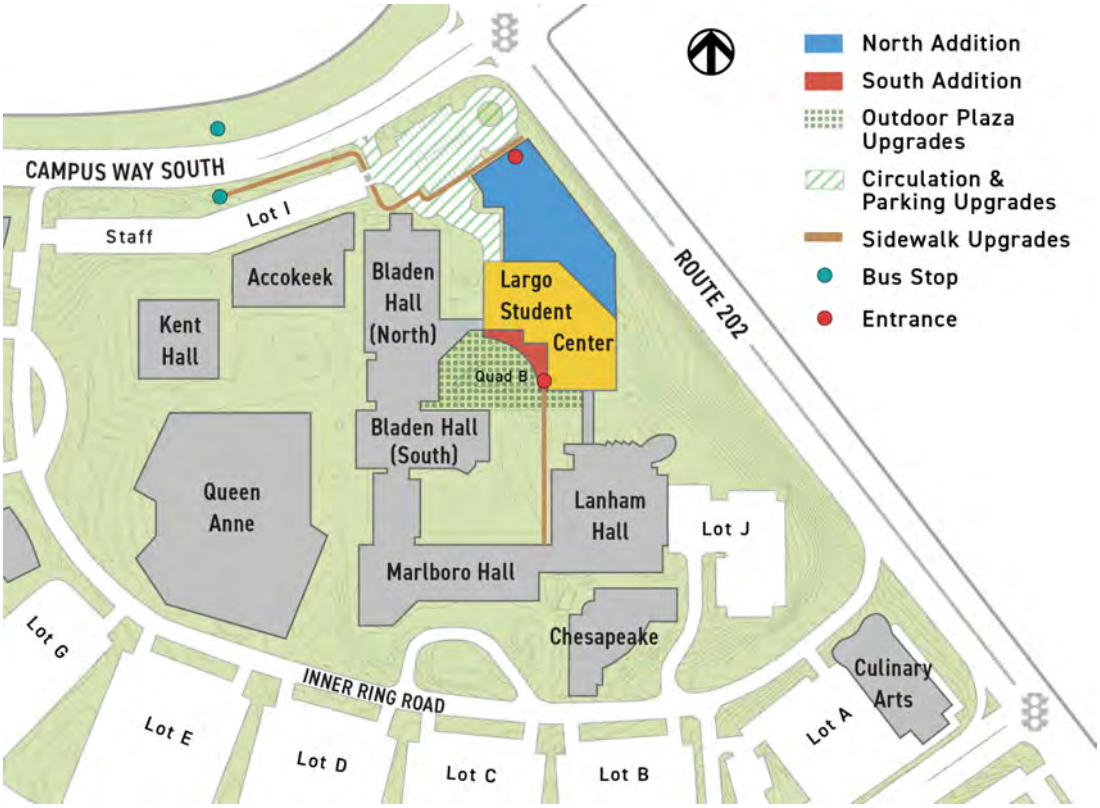
The A/E Consultant is responsible for the design of all areas within the project site limit boundaries, including those directly impacted by the building footprint, utility, drainage infrastructure, parking and access, and landscape and open space improvements. Imaginative and responsible solutions should be developed to form a cohesive, integrated, economical, contextual and aesthetic design solution that is consistent with and in support of the Prince George's Community College Facilities Master Plan, 2012-2022 and addresses the project goals and requirements. All site improvements should be designed to coordinate and integrate with improvements made as part of the Lanham Hall and Marlboro Hall capital construction projects.

7.01 Site Design Criteria

A proposed conceptual site plan is included as Figure 7.1. The intent of the conceptual plan is to serve as a test fit of the building and associated improvements. The concept will be used to describe the site design criteria. Primary site improvement elements of the proposed concept are:

- Grading and stormwater management improvements to accommodate the building additions
- Circulation and parking modifications and improvements to Lot L
- Enhancements to and upgrade of pedestrian pathways from the bus stop to the new entrance located in the building addition on the northwest corner
- A new vehicle drop off/pick up area to serve the new entrance located in the building addition on the northwest corner
- Upgrade and screening of the loading/service area, including regrading and paving, along with drainage improvements to provide adequate clearance for trucks and adequate stormwater drainage
- Relocation or undergrounding of overhead power lines at the corner of Campus Way South and MD Route 202
- Reconfiguration and upgrade of the outdoor plaza and pedestrian walkways in the North Quad to the east of the existing building
- Pedestrian and roadway lighting fixtures will be relocated and replaced/upgraded to optimize function and safety, and to comply with the latest College standards
- Development of new site entry sequence improvements for both building additions
- Removal of the existing split rail fence and damaged

Figure 7.1: Proposed Site Concept



tulip poplar tree on the north side of the existing building
- Remediation of drainage issues creating water infiltration into the Rennie Forum

It is planned that existing underground utilities will be reused, relocated and extended, as needed, to serve the building addition. It is assumed that the existing utilities have adequate capacity to serve the new facility. However, the selected A/E Consultant team will be required to study and confirm and verify that existing utilities have adequate capacity to support the expanded Largo Student Center.

7.02 Pedestrian and Bicycle Circulation

Clearly delineated and well-designed pedestrian and bicycle circulation routes for students, faculty, staff and visitors will be paramount to physically connecting the expanded Largo Student Center with the Academic Core, parking, open space and the adjacent buildings. Improved pedestrian and bicycle connections will enhance the "arrival" experience and should be coordinated and integrated with existing systems and infrastructure on campus. Adequate bicycle parking facilities will be required to be provided conveniently near each of the main entrances.

7.03 Vehicular Circulation, Access, Loading and Parking

In addressing vehicular access, circulation, parking, loading and parking for the expanded Largo Student Center the A/E Consultant will incorporate the following:

An improved building loading and service area, with access from the entrance from the Campus Way South northbound lane is required. This access route and loading/service area must be configured and designed to accommodate large trucks, including a tractor trailer and a garbage truck. The loading/service area must also be designed to include a minimum of three service vehicle parking spaces and areas for locating trash and recycling dumpsters. The building is required to have one loading dock with a roll up door. The entire loading/service area will be screened from view of arriving visitors at the intersection of MD Rte. 202 and Campus Way South.

A vehicle pull/drop-off area capable of accommodating at least one bus at the final allocation of the main entrance along the outer ring road.

7.04 Excavation and Soils

The existing conditions and character of the site will be considered by the A/E Consultant in development of the site design to include:

A determination of the footprint dimensions and placement of the building addition on the site. A comparative analysis of options will be completed to determine the most beneficial design solution.
An understanding of the site limitations due to soil conditions. Options for the placement and design of on-site building support systems (e.g., utilities, stormwater management, etc.) will be studied to determine the most beneficial design solution. The A/E Consultant will secure geotechnical services to provide a comprehensive subsurface investigation to determine the condition of existing soil and identify any restrictions that these soil types will have on the development of the building's foundation and/or retaining systems. This effort will include a comparative analysis of options to determine the most beneficial design solution.

7.05 Drainage and Stormwater Management

The A/E Consultant will develop, design and submit plans for sediment and erosion control and storm water management for approval by the authority having jurisdiction. Quantitative and qualitative storm water management will be included in the site drainage design.

Site drainage and stormwater management on the site will require study and analysis due to existing conditions and limited site area. In designing the site plan the A/E Consultant will include:

Compliance with the most recent regulatory and design requirements regarding drainage, stormwater management, and erosion and sediment control, including all permits and approvals.

Drainage patterns around structures will direct water away from foundations, walks, patios, roadways, and turf areas so as not to interfere with the function of these site elements.

Stormwater management improvements will provide both water quality and quantity.

Water quality management improvements incorporating Environmental Site Design (ESD) techniques as a primary treatment approach will be used to the maximum extent possible. Some examples of this technique include:

- Micro bio-retention
- Rain gardens
- Gravel wetlands
- Bio, grass or dry swales
- Porous paving for non-vehicular areas
- Vegetated roofs
- Rainwater harvesting

It is desired that the general drainage patterns of the proposed site remain as similar as feasible to the existing drainage patterns.

7.06 Forest Stand Delineation Plan

A Forest Conservation and Mitigation Plan will be developed for the project to meet all Prince George's County and State of Maryland requirements in accordance with the Forest Conservation Act and be consistent with and advance the long-term forest protection plan for campus.

7.07 Hardscapes and Open Spaces

Hardscape, including pedestrian paths, roadways, drivable paths, and building entry plazas will be designed in accordance with the College standards and preferences. It should be noted that each main entrance should have an appropriately designed hardscape plaza that connects and interfaces pedestrian pathways with building entrances.

Exterior open spaces will be in accordance with an overall site development plan and will consider vehicular and bicycle circulation, the campus pedestrian network, the College standards for materials, furnishings, plantings and construction details, and adjacent building entries.

The specific patterns, materials, widths and construction of pedestrian pathways and plazas will be developed to reinforce the building design and the development of outdoor spaces and be consistent with College standards and preferences.

7.08 Landscaping and Plantings

a. Landscape and Planting Design
Landscape and site design will provide balanced outdoor spaces that respect the natural areas of the site, integrating the new facility with other parts of the campus. The design will include hardscape and landscape areas that accommodate the outdoor activities, pedestrian traffic, and necessary emergency vehicle and maintenance access. The outdoor areas should be attractive, sustainable, environmentally conscientious, secure and safe, and easy to maintain.

The landscaping design for the project area will be considered as a unified and comprehensive design, coordinated with the College landscape design themes. Where possible, incorporate the existing natural elements and features into the design.

b. Soil Management
Preserve natural soils as much as practical through grading design. When planting in disturbed areas ensure that proper planting soil is provided throughout the root zone of the mature tree or plant.

The disturbed (reconstructed) planting areas should be un-compacted and well drained. The design will require the General Contractor to obtain soil testing in advance of the installation schedule. The imported soil will be inspected by the A/E Consultant against the approved soil sample.

7.09 Site Security and Lighting

Lighting will comply with the latest edition of The Lighting Handbook from the Illuminating Engineering Society of North America and the College standards and preferences for interior and exterior lighting types and styles, including pedestrian light standards.

Site lighting will incorporate a design scheme for lighting the building facades and will also consider the use of interior building lighting of lobbies, corridors, and significant interior spaces to supplement the exterior spaces adjacent to the building. Overall design will limit the amount of light transmission off-site and into the atmosphere.

Exterior lighting may be required to light banners, signage and building features.

Exterior lighting is to be provided in accordance with the College standards.

7.10 Site Furnishings and Exterior Signage

Site furnishings, including trash and recycling receptacles, benches, bike racks, and site lighting will be selected and located in accordance with the College standards. Placement of furnishings will encourage use of outdoor space for social interaction.

Signage: All existing signage inside and outside of the Largo Student Center will be replaced or upgraded as part of this project in accordance with the latest College branding and sign standards. Communication of building information through signage and graphics is essential. It is the A/E Consultant's responsibility to design an identification and directional system to communicate information essential to the operation of the facility. The interior/exterior graphic system is to assist individuals moving to and within the facility. In accordance with ADA requirements, attention must be given to the needs of individuals with disabilities to access the building from parking areas and walkways and to move freely throughout the building. The building site, including adjoining facilities and field space, will incorporate the current College way-finding signage system into its design for pedestrian, vehicular, parking, and accessibility and access signage. The way-finding system will include provisions for exterior building identification signs at the main entrance consistent with the College standards for way-finding signage.

7.11 Electric Service

The A/E Consultant will design the most cost-effective means of providing electric service to the building, including the required transformer equipment. It is anticipated that the proposed building addition will impact existing service to the building and require relocation. The A/E Consultant will confirm through any necessary tests

and surveys that enough capacity is available to serve the new facility.

New, upgraded or relocated electric service will be designed in accordance with College standards and preferences.

7.12 Natural Gas

The A/E Consultant will design the most cost-effective means of providing natural gas service to the building and confirm that the existing line has adequate pressure and capacity to serve the expanded Largo Student Center. It is anticipated the building addition will impact the existing service to the building and require relocation. The A/E Consultant will be responsible for the design and permitting of the new gas line in accordance with the requirements of PEPCO and the associated right-of-way agreement.

Natural gas service will be designed in accordance with PEPCO and College standards and preferences.

7.13 Domestic Water and Fire Protection

The A/E Consultant will design the most cost-effective means of providing water service to the building and confirm that the existing line has adequate pressure and capacity to serve the expanded Largo Student Center. It is anticipated the building addition will impact the existing service to the building and require relocation. The A/E Consultant will determine and design the final pathway, size and material of the water line and confirm the capacity and pressure of the existing system to support the new facility.

Domestic water service will be designed in accordance with WSSC and College standards and preferences.

7.14 Sanitary Sewer

The A/E Consultant will design the most cost-effective means of providing sanitary sewer service to the building and confirm that the existing line has adequate capacity to serve the expanded Largo Student Center. It is anticipated the building addition will impact the existing service to the building and require relocation. The A/E Consultant will determine the final pathway, size and material of the sanitary sewer line and confirm the capacity to serve the expanded Largo Student Center.

Sanitary sewer service will be designed in accordance with WSSC and College standards and preferences.

7.15 Data and Telecommunication

The A/E Consultant will design the most cost-effective means of providing data and communications service to the building and confirm that adequate capacity to serve the expanded Largo Student Center exists. It is anticipated the building addition will impact the existing service to the building and require relocation. The A/E Consultant will determine the final pathway, size and material of the telecommunications lines and confirm the capacity to serve the expanded Largo Student Center.

Data and communications service will be designed in accordance with College standards and preferences.

PART II
PROJECT JUSTIFICATION AND SCOPE

SECTION 8:
Building Design Criteria and Requirements

The A/E Consultant will study options for effectively addressing and articulating the building massing to integrate harmoniously with other campus buildings and accomplish specific project goals such as establishing a “Gateway” impression on the northwest end of the building near the intersection of Campus Way South and Maryland Route 202. The A/E Consultant will provide design solutions that result in a building that is inviting to the public as well as Prince George’s Community College users, both as a functional structure and as a compatible element in the campus built environment. Design solutions will consider materials, scale, space, light, relationship of outdoor and indoor environments and circulation.

8.01 Massing and Structure

The Largo Student Center building massing will be sensitively integrated into the site and coordinated with adjacent buildings, while accommodating multiple scaled spaces to host various activities at one time.

While the existing Largo Student Center will remain as two floors, the addition to the building will be three stories with adequate floor-to-floor dimensions, serving as a landmark structure at the intersection of Largo Road (MD Route 202) and the Campus Way South.

The large multipurpose conference room will have a clear span joist or truss system to provide the clear dimension required for the programmed activities.

The on-campus entry of the Largo Student Center at the central plaza will be renovated to incorporate double height massing to update the aesthetics and light quality into the existing structure.

The structural design will provide a building system that supports the variety of programs, but is also aesthetically pleasing and architecturally striking and complementary to the expressions of the facility. The structural design does not necessarily need to reflect the existing condition. The structural design will accommodate the functional service needs, while meeting current codes and standards for sustaining all loads imposed on the building system. During the design phase, mechanical, electrical, plumbing and civil design will be coordinated with the structural elements to avoid any potential conflicts and minimize unplanned penetrations of floors and other structural members.

The building will be designed for dead, live and seismic loads in accordance with all current applicable building codes.

All equipment on the roof will be supported on dampening pads to minimize the effects of vibration and noise. All exposed equipment will be screened from view.

8.02 Exterior Architectural Elements

The expanded Largo Student Center will be compatible with and complementary to the architecture style of the latest buildings on campus, extending the modern vocabulary, while providing the warmth and scale of modular clay brick. The architectural elements and materials should be tested, low-maintenance systems with a service life expectancy of more than fifty years. A combination of metals, glazing, brick and precast concrete units will be used in the design of the building exterior in proportion to the functional aspects of the building. Refer to Figure 1.2 for recently completed capital building projects on campus to see examples that embody the desired architectural vocabulary & design intent for future campus building projects.

The roof systems will provide a canopy celebrating both the public entrance and campus entry into the building and will be clean of all major mechanical systems, as both will be highly visible.

Attention throughout the design process is required to ensure that major equipment, stacks, and penthouses are orderly and attractive when viewed from adjoining buildings and open spaces. No exterior ductwork is permitted other than hood exhaust.

Mechanical equipment will be concealed in a penthouse or screened enclosure.

8.03 Relationship to Exterior Spaces

The exterior plaza, known as Quad B, to the east will be reconfigured to compliment the building addition and serve as a public gathering space and one of two primary entrances for students, faculty, staff and visitors coming to the facility.

A new public entrance will be designed on the west end of the building and coordinated with a vehicle drop off/ pick up location and limited surface parking for visitors and those attending events and conferences scheduled in the building. In addition, pedestrian pathways and associated lighting and street furniture will need to be reconfigured or added to connect into the existing pedestrian network running along the west end of Bladen Hall and the public transit station on Campus Way South.

The primary building entries, east and west, will be at or just above grade with each designed for use by individuals with disabilities as well as service deliveries and other general traffic. Weather protection at building entries will be provided by overhangs, canopies, or recessed doorways. Vestibules will be provided at each major entrance.

Care will be taken in the design of roof details and walking paths to avoid hazards associated with falling snow or ice. The building will require significant service access for food service, central receiving and College Store deliveries. The existing loading dock and service yard located on the west side of the building will require substantial reconfiguration and upgrade to adequately accommodate turning movements and loading areas for delivery vehicles, including tractor trailers. The service yard and functions will be designed to be hidden and screened from significant campus views and will provide an efficient back of house staging area for large events and frequent supply deliveries for the dining operations.

8.04 Building Organization and Zoning

The Largo Student Center comprised of a variety of activity programs will be organized around the main internal 'boulevard'. The boulevard will serve to connect the public and the Prince George's Community College community within the building, creating a campus social and information hub.

With large existing and recently renovated programs such as Rennie Forum and the College Bookstore remaining in its current location, the mixed-use programs will be distributed and organized as defined in the following:

First Floor - Serving as the main entry floor, the open 'boulevard' will be a highly active area with programs being organized to attract a high amount of traffic, such as multi-purpose student spaces, student lounge, and instructional areas. Central to the boulevard will be a grand stair that connects the first floor to the second floor reinforcing the open and dynamic movement of many type of users. Elevators will be provided nearby in facility for use by disabled or handicapped persons, as needed. The information commons located adjacent to the boulevard creates an integrated environment that supports high levels of student to community engagement.

Second Floor - The primary users are Prince George's Community College students with programs such as Student Government and clubs, Student Success and Engagement, student market/ maker spaces, quiet and active lounges. Like the first floor, the programs will be organized around the boulevard based on intended activity level within and provide more of an informal "home away from home." The newly revamped and expanded food service and dining area will remain on the second floor adjacent to the grand stair serving the college's community as well as the public when in operation.

Third Floor - The primary function at this level is the conference room that can accommodate 550 occupants in banquet style seating. Adjacent to the conference room will be breakout areas, conference room support space and storage. Highly utilized for events and meetings by the campus community, the conference room located away from most of the student-oriented programs will allow maximum utilization while still serving the needs of the campus.

8.05 Circulation between Zones

The circulation patterns between and within each programmatic zone will minimize conflict and coordinate crossing paths. The relative size of the horizontal and vertical circulation elements, like entrances and corridors, will be appropriately sized to directly serve the movement of people from one area to another.

The main entrances will immediately convey a sense of the building arrival and its activities to both the first-time visitor and persons well acquainted with the building. The spaces will be inviting and open, provide a sense of excitement, and of a scale to visually impart a sense of direction moving along the concourses to the focus of activity on the event floor.

The building entries should be organized to have a public access from the outer ring road and future parking garage. In addition, another entry to the northwest will provide new access to serve the new events meeting spaces and accommodate the pedestrian flow of students, faculty and staff from mass transit stops.

Vertical circulation directly accessible from the main entries will link all levels containing all spaces.

8.06 Food Service

Food service will complement the user experience. Basic food service facilities and equipment will be shared, but will be sourced differently depending on the function and venue within the building. The exception to this approach will be the space dedicated for a national brand, which may have its own dedicated cooking facilities.

Banquet meals will be provided for special events located on third floor for up to 550 guests and will be supported by a conference room support area located near the service and loading areas.

8.07 Accessibility

The design of all building and site improvements will provide for the convenient use of the facility by individuals with disabilities and will conform to current ADAAG regulations and Maryland accessibility codes.

The project will be designed to make special accommodations for adequate ADA compliant: parking, pathways to the building, drop-offs to the building, building entrances, and seating in the building to support assembly

events that draw large crowds and numbers of patrons requiring ADA accommodations.

8.08 Quality of Light

Natural day lighting will be incorporated into main public entrances, administrative suites and offices, dining areas, classrooms and other programmed spaces to the greatest extent possible.

Natural light is encouraged in most of the rooms including the ballroom, but will require control via shading devices and other mechanisms for specific events being held that will require projection viewing or other light-sensitive activities requiring a controlled environment.

The A/E Consultant will reference and apply all best practices and standards from the Illuminating Engineering Society of North America Lighting Handbook and the criteria in the design of the project.

8.09 Sustainability

The building will achieve a minimum of LEED Silver certification with an aspirational goal of LEED Gold.

The A/E Consultant will incorporate materials and systems into the design that will allow sustainable maintenance and reliability over the fifty-year life of the facility. In addition to creating an environmentally responsible facility, the building will be a showcase for student engagement, education, community outreach, and environmental awareness.

The A/E Consultant will provide cost-benefit/life cycle analyses for systems having alternative performance criteria, which have potential environmental benefits. These criteria include increased thermal comfort zone, lower ASHRAE design temperature criteria and other energy saving strategies.

8.10 Interior Materials and Finishes

Materials and finishes, both interior and exterior, will be selected to meet durability, aesthetic considerations, acoustical requirements, ease of maintenance, conservation of energy, sustainable manufacturing processes, and indoor environmental quality.

Architectural finishes are an important consideration for maintainability and durability and is a design priority. All materials, including design details, will be analyzed for their effect on durability and ease of maintenance, and attention will be given to areas of high traffic (corridors). Special care will be taken at building entrances to provide for the removal of accumulated dirt, sand, and moisture. Surfaces will be selected to provide a monolithic, cleanable surface, free of cracks or ridges. Floor-wall joints must be designed to allow easy cleaning.

Doors will be sealed against pests and vermin and all penetrations of pipe, conduit, etc. and will be sealed for sound, fire, smoke, and pest control.

Floor surfaces will be appropriate to the function of the space. Surface materials will be selected to respond to maintenance needs as well as to the function and acoustical needs of the spaces. Materials will generally be long-lasting and easily cleaned.

The minimum specifications for carpet used will include performance requirements for static protection, Radiant Panel and Aminco Smoke Chamber Test passage, Steiner Tunnel Test (ASTM 84) passage, light fastness, tuft bind, delimitation, abrasion resistance, compression resistance, and acoustical qualities.

The facility, by its nature and heavy use, will incur a certain amount of abuse from the movement of foot traffic and of food. The design team must work closely with the college's maintenance staff responsible for the care of the various installed surfaces and systems to ensure significant life cycle cost savings.

The A/E Consultant will take special notice of requirements for change in texture of floor surface where potential dangers to persons with disabilities exist and provide ADAAG-compliant recommendations as required.
The A/E Consultant will develop detailed product and installation specifications, and coordinate the review of these with the College prior to adoption.

In the selection of building materials, the A/E Consultant will take into consideration the off-gassing properties of selected building materials and finishes, especially those of wet pollutant emitters (e.g., paints, mastics/glues, etc.), in relation to maintaining good indoor environmental quality. Selected carpets will carry the Carpet and Rug Institute (CRI) IAO Logo in accordance with OSHA 29 CFR 1910.1001 - Air Contaminants and BOCA 3307 -Health Standards.

8.11 Furniture and Equipment

Furniture and equipment layouts will be used to illustrate the function of each space. The spaces in this project are described in terms of NASF required for the function. Linear dimensions are not generally given to avoid undue restrictions on architectural design. It must be recognized, however, that the shape of a given space will influence the way in which it can be used. Therefore, the A/E Consultant will show all furniture equipment at the schematic and design development phases to ensure that the design shape provides for the function of the space. The College will select movable furniture and equipment, and the A/E

Consultant will provide the layouts to demonstrate that the required furniture and equipment fits and functions as intended.

The A/E Consultant will recommend movable equipment and furniture to the College.

Primary lists of equipment required to support this program are outlined in the individual space data sheets and are to be used as a starting point.

Existing and new equipment as identified in the program space data sheets are categorized as either "built-in equipment" or "movable furniture". In addition, most space data sheets include an equipment list table that documents additional information and specialized equipment, including responsibility for providing the item and for installing it.

Items identified as "specialized equipment" will be included in the contract documents, unless they are identified as Furnished and Installed by Owner. The A/E Consultant will specify manufacturer, style, sizes, critical mounting/ installation requirements, and location of this equipment and require that the Contractor provide this equipment as part of the contract.

The A/E Consultant will coordinate with the College to specify the movable furniture, and coordinate manufacturer's, models, finishes and numbers of items. The A/E Consultant will provide a design to accommodate all furniture and include floor plans that illustrate the layout of furniture and the location of supporting utility infrastructure.

The A/E Consultant will specify manufacturer, style and sizes of equipment including those that are repositionable, temporarily attached to floors and walls, or permanently fixed to the building. The A/E Consultant will consider ergonomic factors in the selection of furniture and the development of equipment layouts.

Furniture specifications will follow the Maryland State Facility and Maryland Correctional Enterprises (MCE) regulations; however, where appropriate, furniture should be recommended beyond MCE where it allows for greater enhancement of a space.

8.12 Signage and Graphics

The A/E Consultant will design an identification, events messaging and directional system to communicate information essential to the operation of the new facility. It is anticipated that all existing signage will need to be replaced or upgraded. The interior and exterior way-finding, signage and graphic system is to assist individuals moving to, and within the facility. In accordance with ADA requirements, attention must be given to the needs of individuals with disabilities to access the building from adjoining parking areas and walkways, and to circulate effectively throughout the building.

The A/E Consultant will coordinate all interior and exterior graphics with the College standards. All signs will reflect standards established by the College in construction, location, color and lighting. The signage and graphics system designed will at a minimum include:

1. Exterior building identification signs at the main entrance.
2. Interior signage that conveys needed information and compliments the interior finishes of the building. The room numbering system will conform to College standards.
3. Interior building directories at the main entrance and on each floor as required.
4. Room number and general space use identification for all rooms.
5. Room number and interchangeable name identification plates for all departmental offices and all support areas including toilets and mechanical/ electrical rooms.
6. Room name signs of large, specialized spaces.
7. Special donors and sponsors signs.
8. Identification signs for all hazardous areas, evacuation procedures, and means of egress in accordance with the fire and building codes.
9. Interior directional signage within the building.
10. LEED plaques and LEED information signs.
11. Boards and display cases.
12. Electric message boards in public and departmental areas as required.

Adequate space will be provided for attractive bulletin boards and/or exhibits. Provisions will be made at the entrance of the building for display of a building floorplans and announcement boards.

Branding will reflect or relate to the colors, brand of the College.

The A/E Consultant will develop a room numbering system in accordance with the College standards during the Schematic Design Phase and subsequent design phases for review and approval by the College.

8.13 Acoustics

Each space in the building will be designed to provide appropriate noise reduction for its scheduled use. Sound isolation is also of utmost importance. Criteria for noise reduction and sound isolation is provided in the space sheets as a guide – the A/E Consultant will employ "best practices" in this regard. This includes sound generated by equipment and users in adjacent rooms as well as by the

Type of Space	Room Criteria	STC Rating	Reverberation Time (RT60)
Min-Frequency - 500 Hz	10	4	4
Classrooms	RC30-35(N)	STC 45-50	0.6 - 0.8 sec.
Meeting Rooms	RC25-30(N)	STC 50-55	0.6 - 0.8 sec.
Private Offices	RC25-30(N)	STC 50-55	0.5 - 0.7 sec.
Offices	RC30-35(N)	STC 40-45	0.5 - 0.7 sec.
Conference Rooms	RC25-30(N)	STC 50-55	0.6 - 0.8 sec.
Lobby/ Lounges	RC35-40(N)	-	0.6 - 0.8 sec.
Corridors	RC35-40(N)	-	-
Work Rooms	RC30-35(N)	STC 45-50	-
Locker & Shower Rooms	RC40(N)	STC 50	-
Food Service Spaces	RC40(N)	STC 50-55	-
Box Office and Retail Spaces	RC35-40(N)	STC 45	-
Rest Rooms	-	STC 50-55	-
Information Technology Utility Spaces	-	STC 45	-
Mechanical Rooms	-	STC 50-55	-
Laundry Room	RC40(N)	STC 45	-

building mechanical systems.
Mechanical system design must provide sufficient attenuation of noise generated by airflow through ducts and diffusers, as well as noise generated from system components in all occupied spaces.

Spaces that contain noise generating equipment will be designed in locations away from spaces requiring background noise levels of RC-35(N) or below. If the final design requires adjacencies that cannot meet these requirements, adequate sound isolation must be provided. This may require structurally isolated box-in-box construction.

Mechanical and Plumbing
8.14 General Criteria and Codes/Standards

Following is a summary of HVAC, plumbing and fire protection design criteria for the major spaces in the Largo Student Center. These criteria will be used where "Standards" are referenced in the space data sheets. The building will be designed to support LEED Certification requirements.

The latest version of the referenced codes will apply unless otherwise directed by the College. Standards and guidelines are intended to establish the minimum design criteria for the project with final acceptance for potential variation by the College.

All alternative mechanical and plumbing systems will be selected based on life cycle cost analysis (LCCA). Potential HVAC systems shall be presented to the College for approval before starting the LCCA. Potential system options shall be compliance with the DGS Procedure Manual for Professional Services, Chapter V; however, the Packaged Heat Pump Option shall not be considered. Other alternative system options are encouraged. The A/E Consultant will focus on and provide a design that provides flexible, maintainable and reliable building systems.

The design will adhere to:

- Most recent College campus design standards and preferences
- DGS Procedure Manual for Professional Services
- IBC, as amended by Prince George's County Subtitle 4
- IMC, as amended by Prince George's County Subtitle 4
- NSPC
- IECC, as amended by Prince George's County Subtitle 4
- NEC, as amended by Prince George's County Subtitle 9

- NFPA 101, as amended by Prince George's County Subtitle 11
- NFPA 13/14
- WSSC Plumbing and Fuel Gas Code
- Americans with Disabilities Act (ADA)
- ANSI 17.1-Elevator Code
- ASHRAE Handbooks- HVAC System Design Guidelines
- ASPE Handbooks- Plumbing Design Guidelines
- SMACNA- Ductwork Design Guidelines
- ASHRAE 62.1-Ventilation Standards
- ASHRAE 90.1-Energy Guidelines
- Prince Georges County Clean Renewable Energy Technology (CRET) Law (CB-83-2013)

8.15 Design Criteria

Outside Design Conditions:
Summer: 89-degree F DB / 73-degree F WB (2% ASHRAE)
Winter: 18-degree F DB (99 %ASHRAE)
Cooling Tower Selection: 88-degree F WB

Inside Design Conditions (Regularly Occupied Spaces – occupied mode):
Temperature/ RH:
Summer: 75 F DB / 50% RH maximum
Winter: 70 F DB / no humidity control

Inside Design Conditions (unoccupied mode):
Temperature/ RH:
Summer: 85 F DB / 60% RH maximum
Winter: 55 F DB / no humidity control

Occupancy schedule:
Obtain from the College Largo Student Center hours of operation and occupied/unoccupied periods. Incorporate these data in energy model and final BAS sequences of control.

8.16 Ventilation/Filtration/Pressurization / Air change rates:

General
The building will be pressurized to reduce infiltration of moist humid air in the summer and cold air in the winter. All areas will be ventilated following ASHRAE 62.1 standards. Carbon Dioxide sensors will be installed in high people density spaces to reduce supply air to spaces (e.g. Conference Rooms, Large Instructional Spaces) to minimize outdoor ventilation air requirements.

Occupancy sensors will be specified to shut-down air to spaces when not in use to reduce building supply air requirements.

Make up air for the food service spaces will be supplied from the air handling units serving the support spaces. Much of the make-up air will be transfer air from adjacent spaces. Make-up air for the kitchen has been a problematic issue for this building; special attention to this aspect shall be provided.

Specific
Office & Support Areas: 3 ACH minimum occupied / MERV 13 filters / positive.
Circulation Areas: ASHRAE 62.1 / MERV 13 filters / positive.
Building Service Areas: ASHRAE 62.1 / MERV 13 filters / negative/continuous exhaust as required by code.
Mechanical / Electrical Areas: ASHRAE 62.1 / MERV 13 filters / negative.

8.17 Equipment Cooling Loads:

Coordinate with the User Group to ascertain the anticipated user equipment to be provided for each space and include the same in the HVAC load calculations. Discuss with the College the potential for changes in equipment cooling loads and using professional judgement propose equipment cooling load allowances for future unknown loads. It is anticipated that the density of personal electronic devices will increase over time.

8.18 Cooling Source and Distribution

The building will be cooled by a stand-alone cooling system comprised of water cooled chillers and variable primary pumping systems.

High efficiency chillers will be designed to achieve water supply at 44-degree F. Chilled water will be returned at 60-degree F to minimize pump energy cost. Chillers will use variable primary flow to minimize equipment first cost and optimize energy efficiency. This set up also reduces floor space required for equipment and minimizes maintenance costs. Provide flow meters and modulating flow control valves in chilled and condenser water supply piping to ensure equal flow and minimum flow under all operating conditions.

Chilled water will be distributed throughout the building by a variable flow chilled water pumping system. All cooling coils will have 2-way control valves, except for a select number of units which shall use 3-way control valves to address minimum flow requirements for the pump(s). Air handling unit cooling coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35-degree F to protect coils from freezing and eliminate the need to drain cooling coils in the winter. Critical data and telecom rooms and elevator equipment rooms will have standalone cooling systems. Standalone cooling systems shall be able to operate at an outdoor ambient temperature of 0-degree F.

Pump minimum flow requirements shall be addressed by means of by-pass legs at ends of major branches utilizing control valves sequenced to open upon reaching a critical system differential pressure.

The design team shall also study the possibilities of utilizing alternate chilled water sources through a life cycle cost model. Other options to include geothermal, water cooled chillers and associated cooling towers and DX rooftop units.

Cooling equipment: Provide emergency power for small stand-alone cooling systems only.

8.19 Heating Source and Distribution

The building is presently connected to the College's central steam plant. Consult with the College during the early design phases to ascertain any specific direction concerning the possible continued use of steam to produce on-site heating water via a shell and tube heat exchanger. The College wishes to eliminate any summer-time loads on the steam plant. Consider redundant heating plants of stand-alone boilers and steam to water heat exchangers. Boilers will be of low temperature condensing design fueled by natural gas to optimize energy use. Heating hot water supply to the building will be 140-degree F. Design hot water return will be 100-degree F.

Boilers will be capable of utilizing variable boiler flow. Dedicated, constant volume, boiler pumps will not be used. Elimination of boiler pumps will minimize equipment first cost and optimize energy efficiency. This set up reduces floor space required for equipment and minimizes maintenance costs. Boiler flow isolation valves will be installed to stop flow through boilers not in use. Minimum boiler flow by-pass valve will be provided to ensure minimum boiler flow at low heating loads.

Heating hot water will be distributed throughout the building by a variable flow heating hot water pumping system to air handling unit heating coils, unit heaters, cabinet heaters and reheat coils associated with variable airflow (VAV) boxes. All heating coils will have 2-way control valves, except for a select number of units which will use 3-way control valves to address minimum flow requirements for the pump(s).

Provide perimeter fin radiation at all large expanses of perimeter glass.

Air handling unit heating coils will have a side stream circulator sized at 50% of coil flow. This circulator will operate below 35-degree F to protect coils from freezing. Heating equipment: Provide emergency power for boilers, heating pumps and coil freeze protection pumps.

8.20 Central Air Handling and Exhaust Systems

Air systems will be zoned by function. Provide separate air handlers accordingly. The Ballroom will operate on a schedule independent of much of the building and is to be provided with a separate air system. The Ballroom will have independently controlled temperature control zones or separate air handlers for each sub dividable space.
All air handling units will be of commercial grade, modular, double wall design. All units will incorporate 100% economizer ability and heat recovery. Units will incorporate return fan section with direct drive plenum fans, outside air/mixing box section, air blender section, MERV 8 pre-filers section, pre-heat coil section, cooling coil section, supply air fan section with direct drive plenum fans, MERV 13 final filtration section and discharge plenum section. All fans will be variable speed. Duct mounted sound attenuators will be used to prevent excessive noise generated from the unit to reach occupied spaces.
In lieu of return plenum and return fan section integral with the air handling unit, mixed flow wheel direct drive inline return fans located adjacent to the air handling units may be used. This will reduce mechanical space required for air handling equipment.

Exhaust systems will be provided for general exhaust (e.g. toilet room exhaust) and specialty exhaust (e.g. kitchen hood exhaust, refrigeration room exhaust). Existing kitchen exhaust and make-up air systems may be reused after further assessment and development of the preliminary design.

Study, and review with Owner, locating air handling units outside. Study, and review with Owner, locating air handling units inside verse outside, discuss, the impact maintainability and the means of providing access to the units, including the movement of heavy tools and equipment.

Air handling equipment: Manifold or utilize fan arrays in air handling units to provide some redundancy for during repair or servicing.

8.21 Air Distribution System

Alternative HVAC systems will be studied in a life cycle cost analysis. The following items are to be incorporated as applicable.

Supply ductwork upstream of variable volume boxes will be designed for SMACNA 3 inches WC pressure class. Duct airflow velocities will be limited to 1800 feet per minute (FPM) to reduce duct generated noise within the building and save fan operating energy cost. Also, ductwork upstream of the VAV boxes will be sized for maximum dynamic air pressure drop of 0.15 Inches WC/100 feet

equivalent duct length.

Employ services of an acoustical A/E Consultant to target space noise criteria and to review building system designs to ensure that the noise criteria are maintained. Ductwork downstream of the VAV boxes will be sized for maximum pressure drop of 01. Inches WC/100 feet equivalent duct length.

In general ductwork will be G90 galvanized steel. Stainless steel will be used for moisture laden air streams (e.g. shower room exhaust, dish washer exhaust), as the air stream dictates. Acoustical duct sound lining will not be allowed.

All ductwork will be sealed in excess of Class A. All joints, seams and duct penetrations will be sealed. Leakage rate will not exceed 2 CFM per 100 SF of ductwork at 3 inches WG duct pressure.

Commercial VAV terminal units with hot water re-heat coils will be used throughout the building. Series fan powered VAV units will be installed in areas where constant air movement is required for optimum occupant comfort (e.g. Fitness rooms, Training rooms). All ductwork will be thermally insulated in accordance with the energy code. Variable air volume VAV boxes will be set-up in a constant volume mode, 2-position mode or variable volume mode depending on space served.

Study incorporation of energy recovery in building exhaust systems to minimize building energy consumption. The design of the system should minimize noise toward the soccer stadium and the Stadium Complex.

8.22 Energy Management System (EMS)

A direct digital control system will be provided for the Largo Student Center as manufactured by Siemens Technology. The system will be WEB based and integrated seamlessly into the existing campus system. Actuators will be electronic. All panels will have emergency power connections and UPS modules.

The existing, campus-wide Central Control and Monitoring System (CCMS) will be expanded as required to control, monitor, and alarm the DDC and CCMS System. Building DDC and energy management controls are to be implemented using the the College campus wide standard system. The building system is to be capable of standing alone but is also to be totally integrated into the overall campus wide network. System design is to be coordinated with the College's designated vendor responsible for site management and support. Sequence of Operation will be provided to the selected A/E Consultant. System design is to include:

- Building system configuration drawings,
- I/O lists (typical accepted) to include mechanical and electrical systems as follows:
- Tripped main, tie, or feeder circuit breaker as determined by the College,
- Substation secondary voltage,
- Substation transformer hot spot temperature,
- Substation automatic throw over status-automatic, manual,
- Items listed under Emergency Power System,
- Major mechanical equipment (chiller, boiler pumps, AHU, etc.),
- Minor mechanical equipment (VAV, fan coils, etc.), and
- General environmental status (temperature, humidity, etc.).
- Sequence of operation for mechanical equipment,
- Drawing locating all system modules/cabinets,
- Generalized description of desired graphics,
- List of desired reactions to selected alarm conditions, and
- Integration with power monitoring system.

8.23 Testing, Adjustment and Balancing and Commissioning

The A/E A/E Consultant will incorporate the requirements of ANSI/ASHRAE 111-1988 or the most current approved version, Practices for Measurement, Testing, Adjusting, and Balancing of Building Heating, Ventilation, Air Conditioning, and Refrigeration Systems, into the construction specifications.

The building will be commissioned by a third-party commissioning agent meeting the LEED certification criteria for scope of services.

Plumbing

8.24 General Criteria and Codes/Standards

Refer to paragraph 6.14 for a summary of plumbing and fire protection design criteria for the major spaces in the Largo Student Center.

8.25 Plumbing, Existing Building

Complete replacement of the sanitary sewer, storm water management and potable water systems will be provided, above and below grade.

Domestic hot water is by natural gas fired water heaters. The existing heaters are reported to be in good condition and will remain to serve the existing building. Modifications to the existing storm water and sanitary systems will be evaluated. No hub cast iron will be provided above grade; below grade will be hub and spigot. Existing domestic water piping distribution systems will be utilized for the existing building to the extent possible.

New piping will be provided as required for proposed fixture locations.

A black steel natural gas system will be extended to heat any proposed equipment requiring natural gas.
Water saving plumbing fixtures will be utilized as required to achieve LEED certification. These will be sensor activated faucets and flush valves.

Sump pumps or sewage ejectors required for fixtures or drains that cannot drain by gravity will be fully redundant and on emergency power. Sump pumps with oil alarm feature will be provided in elevator pits.

Reuse of condensate from air handling units to provide cooling tower make-up will also be studied for incorporation into design based on a cost-benefit analysis. Sub-metering of water supplied to the cooling tower will be incorporated into the design.

8.26 Plumbing, Proposed Addition

Complete replacement of the sanitary sewer, storm water management and potable water systems will be provided. Domestic hot water will be generated at 140-degree F by natural gas fired, high efficiency, condensing hot water heaters. Lower temperature (110-degree F) water will be supplied to showers, lavatories, sinks and other plumbing fixtures requiring domestic hot water via point of use mixing valves.

Potable and fire protection water system water services will be protected with backflow prevention devices.
The storm water and sanitary systems will be no hub cast iron. Below grade it will be hub and spigot.
Water piping distribution systems materials will be type L copper with copper sweat fittings.

A black steel natural gas system will be provided to heat any equipment requiring natural gas.
Water saving plumbing fixtures will be utilized as required to achieve LEED certification. These will be sensor activated faucets and flush valves.

Sump pumps or sewage ejectors required for fixtures or drains that cannot drain by gravity will be fully redundant and on emergency power. Sump pumps with oil alarm feature will be provided in elevator pits.

Reuse of condensate from air handling units to provide cooling tower make-up will also be studied for incorporation into design based on a cost-benefit analysis. Sub-metering of water supplied to the cooling tower will be incorporated into the design.

8.27 Fire Suppression, Existing Building

The existing building is fully sprinklered. Preliminary study indicates that a fire pump is not required. However, the A/E Consultant will confirm this conclusion and to ensure that the sprinkler system will meet the requirements of NFPA 13 and 14.

Dry pipe or pre-action systems will be provided where freezing has a potential to occur (e.g. Health and Wellness space loading dock).

The building will incorporate ventilation and smoke control systems to meet all requirements of NFPA if applicable.
Dry chemical extinguishing system will be provided for all kitchen hoods if provided.

8.28 Fire Suppression and Smoke Control, Proposed Addition

The proposed addition will be fully sprinklered. The A/E Consultant will evaluate the capacity and adequacy of the existing water service to determine if connection can be extended from the existing building or if a new service will be required for the addition.

Electrical

8.29 Electrical and Communication

Following is a summary of electrical, communication and lighting design criteria for the major spaces in the Largo Student Center. These criteria will be used where “Standards” are referenced in the space data sheets.

The latest version of the referenced codes will apply unless specifically required otherwise by the College.

Standards and guidelines are intended to establish the minimum design criteria for the project with final acceptance for potential variation by the College.

8.30 Codes and Standards

- Most recent College campus design standards and preferences
- DGS Procedure Manual for Professional Services
- IBC, as amended by Prince George’s County Subtitle 4
- IECC, as amended by Prince George’s County Subtitle 4
- NEC, as amended by Prince George’s County Subtitle 9
- NFPA 101, as amended by Prince George’s County Subtitle 11
- ASHRAE 90.1-Energy Guidelines
- Prince Georges County Clean Renewable Energy Technology (CRET) Law (CB-83-2013)
- Americans with Disabilities Act (ADA)
- ANSI/ASME A17.1 Safety Code for Elevators and Escalators

- Applicable editions of National Fire Protection Association (NFPA)
- American National Standards Institute (ANSI)
- American Society of Mechanical Engineers (ASME)
- Certified Ballast Manufacturers Association (CBM)
- Electronics Industry Association/ Telecommunications Industry Association (EIA/TIA)
- Illuminating Engineering Society of North America (IESNA)
- Institute of Electrical and Electronics Engineers (IEEE)
- Insulated Power Cable Engineers Association (IPCEA)
- National Electrical Manufacturers (NEMA)
- Underwriters Laboratories, Inc. (UL)
- Maryland Occupational Safety and Health Administration
- ANSI: "National Electrical Safety Code" – ANSI C-2 and ANSI C-37

8.31 CRET Regulatory Requirements

The Prince George's County Council, during the 2013 Legislative Session passed Bill #CB-83-2013 requiring the installation of Clean Renewable Energy Technologies in the construction or major renovation of every County public building. The law includes the following aspects germane to this project. [Sec. 2-505(b)] As defined under Subtitle 10A, Division 6, Subtitle 16 of the County Code, every appropriation for a County public building or major renovation will include an additional appropriation of two percent (2%) to the projected total cost funded by the County, as shown in the County's Capital Improvement Program subject to Section 10A-158.05 of the County Code.

[Sec. 10A-1SS.03] Definitions: (a) In this Subdivision, the following words have the meaning indicated:

- Clean renewable energy technology means technology or a system that employs geothermal heating and cooling, solar hot water, wind, solar electricity generation, or solar thermal generation. Clean renewable energy technology will also include passive solar energy generation that reduces energy use from other sources by at least twenty percent (20%).
- Cost effective means where the cost of installing clean renewable energy technology on a new or major renovation of a public building is not projected to exceed the projected cost savings of the installation within the first fifteen (15) years after the commencement of the installation.
- Public building means a permanent building which will be owned, partially owned or controlled by a County agency and which is either used by the public or enclosed by walls and roof to allow County employees to use or occupy the building on a regular basis for a significant part of their work. Public building will also include County libraries.

[Sec. 10A-1SS.04] Clean renewable energy technology; requirement:

A contract for the construction of a public building or for the major renovation of a public building will require the use of clean renewable energy technology. The building will have installed a minimum of one kilowatt of clean renewable energy technology for every thousand (1,000) square feet of gross floor area subject to Subsection (b) below. Ground mounted clean renewable energy technology on or directly adjacent to the building lot may be used to meet this requirement.

The Purchasing Agent will limit the size of the clean renewable energy technology installation if the upfront cost of the installation is projected to exceed two percent (2%) of the projected total cost of the new building or renovation unless the expenditures have been transferred to the project under Section 1 OA-158.05(b), in which case the expenditures upfront cost will be limited to four percent (4%) of the projected total cost.

8.32 Electrical Proposed Addition

Electrical Distribution: The A/E Consultant will design an electrical distribution system to include a main switchboard, distribution panels, branch-circuit panel boards, disconnect switches, motor controllers, raceway, cable, lighting and its controls.

Power
Overall Building Estimated Normal Load
<20 VA/SF 3000kVA
Overall Building Estimated Emergency Load
< 2.8 VA/SF 350 kVA
Portable Generator Estimated Shelter load
< 2.8 VA/SF 800 kVA

Service Entrance Power: Provide a pad mount transformer to provide 480/277 volts for use in the existing and new addition building. The A/E Consultant will investigate campus electrical services and capacity to the Largo Student Center area to determine required service characteristics. The existing Largo Student Center building will be back fed from the new service entrance equipment and its existing will be removed. The new service entrance equipment is anticipated to be a pad-mounted exterior oil filled transformer with two primary interrupter selector switches to tie to the campus 13.2 KV distribution system. The secondary main switchboard will consist of a draw-out main power circuit breaker or an insulated case with solid-state molded case branch breakers to fill the switchboard including spares. Series ratings of protective devices are prohibited. Provide local digital metering on the main circuit breaker and tie to the campus central metering system as designated by the College. Provide additional metering for LEED silver design and IGCC requirements.

Feeder breakers will have ground fault protections and metering on the digital trip units.

Emergency Loads: The following is a non-comprehensive list of the loads that will be on emergency power.

8.33 Life Safety

- Life Safety and Egress Lighting
- Emergency Communication Center (ECC)
- Main Event Control Room
- Lighting Control Systems
- Fire Alarm / Mass Notification System
- Security System and designated Security Rooms
- Emergency blue phones
- Professional Sound Systems in Main Event areas (with override from fire alarms / mass notification system)

8.34 Equipment

- Building IT room equipment
- Elevator sump pumps
- Boiler and associated pumps for minimal heating to prevent piping from freezing
- Main event smoke evacuation fans
- ATC controls
- Sump pumps
- Sewage ejector pumps (if required)
- A/V controls

Generator: The natural gas generator location will be evaluated with special consideration given for an on-grade location. Preferred generator manufacturers are Generac, Kohler, Caterpillar, and Cummins. The generator will be sized to meet all the emergency requirements listed above and have 10% spare capacity for future needs. An emergency generator status / alarm panel that monitors the generator will be installed in the ECC with generator running and trouble remote signaling to the central plant monitoring equipment as designated by the College.

Emergency Shelter Generator Provisions: To allow for student and community use of the Largo Student Center prolonged utility outages or emergencies, provisions will be considered to bring in a portable generator. Exterior generator connector, manual transfer provisions and associated internal distribution will be provided to accommodate an allowance for the following designated loads for main gymnasium use:

Boiler capacity for human comfort.
- Associated hot water heating pumps.

Chiller capacity for human comfort.
- Associated Chiller water pumps

DHW heating and circulating pumps.
AHU systems, lighting, and outlets for College designated areas of refuge spaces.

Concession and kitchen lighting and equipment designated by the College.

Toilet room areas designated by the College.

One elevator in each elevator bank.

Automatic Transfer Switches: ATS's will be 4 pole for 4 wire systems isolation bypass, closed transition type, as manufactured by Russelectric or approved equal by ASCO. Power Distribution: The main secondary low voltage switchboard will feed distribution panel boards to serve branch circuit panel boards in the building. Show power, tenant spaces, and concession areas will be provided with separate College metered panel boards. MC cable wiring methods will be allowed in finished areas.

Panelboards: will have copper bus, be fully rated, have 42 poles, and have door in door construction.
Dry type transformers: Transformers will be of the harmonic cancelling type where necessary to reduce harmonics in the building. Provide energy efficient type TP-1 transformers as a minimum.

Electrical Rooms: Main normal and emergency electrical rooms will be physically separated. Vertical area electrical rooms will be stacked where possible. Rooms will be walk-in with minimum dimensions of 7'-0" by 8'-0" or larger as required for the equipment contained. Provide one room for every 10,000 GSF of floor area. Rooms will contain normal and emergency panels and will be mechanically ventilated with the capacity required to remove the anticipated heat load.

The design engineer will review a Fault Study, a Coordination Study, and an Arc Flash Study performed by the Contractor's electrical equipment manufacturer. The Contractor will be required to provide arc flash signage for each piece of electrical equipment.

Uninterruptible Power Supply (UPS) centralized system will be designed for telecommunication, data and security systems/equips in the entire building. The UPS unit will consist of following compartments: UPS section, Battery section and by-pass switch, transformer and distribution section. UPS system will have output voltage of 208Y/120V with appropriate capacity and will be located inside MDF room. Appropriate panels/receptacles will be provided in all floor IDF closets.

- Show Power: Main Event Room plug-in stations will be provided for lighting and sound at stage area with 500 kVA load allowance for each. Broadcast truck plug-in stations at designated parking area will not be

provided.
- Ribbon Board Power: No provisions for ribbon board power will be included.
- Floor Boxes: Integrated power, data, sound, and scoreboard control floor boxes will be provided to suit main event, gym, and fitness area needs.

8.35 Lighting

The Energy Code for Maryland was established under the Energy Conservation Building Standards Act enacted by the Public Service Commission. The adoption of the Energy Code now takes place under the Maryland Building Performance Standards (MBPS).

The State of Maryland has adopted with modifications, the International Building Code (IBC) 2018 as the Maryland Building Performance Standards. These standards require the buildings to be designed and constructed in accordance with the International Energy Conservation Code (IECC) 2018.

Consolidate and organize all room controls at a convenient wall location adjacent to entry doors.

An addressable lighting control system will be provided throughout, tied to campus energy management system. Include local overrides and plug load control in office areas per ASHRAE 90.1-2010. Automatic controls will be provided for all rooms including dimming considerations for multi-functional spaces as well as space grouping and level switching. Include daylight harvesting controls where appropriate at the building perimeter spaces. Local controls will be included to override energy management timeout systems. Vacancy sensors will be specified to meet referenced codes in a “manual on” approach. Main Event Area control will be initiated from Main Event Control Room. Entry desk will have programming and overrides per users programming.

Lighting Power Density (LPD) levels will be in accordance with ASHRAE Standard 90.1-latest edition or most current approved version. The 2010 version requires maximum 0.78 (sports arena) to 0.99 (school/college) watts/sf.

The A/E Consultant will verify the following codes and standards in force at the time of design; however, the following average maintained IESNA lighting levels, in foot-candles, are anticipated:

Instructional Area	80-125
Genius Area	30-50
Office	30
Conference Room	30
Lobby/ Lounge	5-10
Corridor	5-10

8.36 Lightning Protection

The A/E Consultant will include a performance specification for a Franklin Rod, faraday cage type lightning protection system per NFPA 780 to be provided by the Contractor.

8.37 Fire Alarm / Mass Notification

Provide a complete voice evacuation, addressable fire detection and alarm notification system and will be interconnected with the existing building to be renovated. A/E to evaluate if the existing Fire Alarm System can be re-utilized. All required expansion panels, devices etc., will be compatible with the existing Fire Alarm Voice system. The building main Fire Alarm System will be tied up into the Campus-wide Master Fire Alarm System.

The A/E Consultant will include an integrated mass communication system (MNS) with the voice communication. The MNS will have connections to data boards, email system, text messaging, and College Police. Consideration should be given that there are going to be four audio input systems to the voice system (General Event/Daily Use PA, Emergency Use PA from the Fire Command Position/ Emergency Command Center (ECC), of notification system, E2 Campus/Alerts notification system).
The Emergency Command Center (ECC) is anticipated to be manned for event functions having smoke generators. ECC drill switches will defeat main event area automatic detection system and the area will be manned with handheld communication to the ECC as fire wardens. Event area detectors may be beam or smoke aspiration type for serviceability.

Professional and stage sound systems will be overridden by the fire alarm voice evacuation systems by priority input.

A smoke evacuation mode is anticipated.

A remote microphone is anticipated to be located at the main entry desk to allow for general paging. In fire alarm condition, this microphone will be overridden by the ECC voice system.

The A/E Consultant will confirm the preferred fire alarm manufacturer of the College.

8.38 Communication Systems

The communications systems for the Largo Student Center are an integral part of the facility. The communications systems include telecommunications cabling supporting voice, wired and wireless data, audio-visual, and security systems, as well as the pathways and spaces that support them.

8.39 Communication Systems Design Criteria

The Consultant will provide full design services for all communications systems required for the facility, including the design of pathways and spaces, cabling (both outside plant and inside plant), voice (telephones), data (network switches, UPSs, wireless access points, controllers), audio-visual, security (both access control and video surveillance), audio-visual, and a Distributed Antenna System (DAS) supporting first responders.

The Consultant will follow recognized communications and related industry standards, including Building Industry Consulting Services International (BICSI), American National Standards Institute (ANSI), Telecommunications Industry Association (TIA), InfoComm International, National Electrical Code (NEC), National Electrical Manufacturers Association (NEMA), Underwriters Laboratories (UL), etc. when designing these systems, as well as the most recent version of the College's Infrastructure and Network Standards. The Consultant will also work closely with the UMCP Office of Information Communications (OIT), as well as the end users and stakeholders of the facility.

8.40 Pathways and Spaces

Having the properly sized conduit, cable tray, chases, and sleeves, as well as the properly sized and located telecommunications rooms (TRs) is a critical step to ensure that the communications systems that will be installed in the facility will operate properly and appropriately support the varied groups occupying the facility.

Depending on the location of the telecommunications rooms (see below), a new ductbank consisting of several 4-inch conduits may need to be designed to connect the building to the existing ductbank system that provides connectivity to the campus networks. Consideration will be given to designing a new Main Telecommunications Room (Main TR) that is strategically located in the facility, likely on the ground floor. The Main TR will be approximately 200 square feet (SF) and will be the main connectivity point for connecting the facility to the campus backbone, as well as to other TRs within the facility. The Main TR will also be the location for any core voice, data, CATV, security, etc. equipment for the facility. To support the varied equipment located in the Main TR, appropriate power and cooling will be designed.

New TRs will also be designed on the other floors of the facility to support the cabling and associated hardware systems on those floors. Each of these TRs will be approximately 100 square feet and will be appropriately located to ensure that the cable distance does not exceed 295 feet in length (from device location jack to patch panel port). Where possible, TRs will be stacked with 4" sleeves connecting them. Where the TRs cannot be appropriately stacked, 4" conduits will be designed to connect them.

In the Main TR and each of the other TRs, ¾-inch fire-treated plywood will be designed on all walls of for mounting of equipment cabinets, panels, cable tray, etc. A basket-type cable tray or ladder rack (minimum of 12-inches wide by 2-inch deep) will be designed above the cable and equipment racks (see below) to support the routing of cables within the TRs.

All TRs, including the Main TR, will be designed with appropriate lighting and HVAC. Lighting will be designed in front of and behind cable and equipment racks. Cooling will be designed such that the TRs are able to maintain a temperature of approximately 72 degrees F, with conditioning of the air in the TRs to be on a 24x7 basis. Power in these rooms is also critical. Convenience power outlets (20A 120 VAC) will be designed on each wall around the room. Dedicated power will be designed for each telecommunications equipment rack installed in each TR based on the actual equipment to be installed in the racks. All power will be dedicated circuits connected to the building generator.

A telecommunications grounding system will be designed in the facility that provides a main telecommunications grounding bus bar in the Main TR, as well as a telecommunications grounding bus bar (TGB) in each of the other TRs. All backbone copper cables, racks, ladder rack, cable tray, etc. will be appropriately grounded to the TGB in each TR.

To facilitate the installation of cabling from device locations to the serving TRs, cable trays in main corridors will be considered (if cable quantities are low, cable supports, such as J-hooks or straps can be designed). When designing tray, it is important to allow for appropriate clearances (especially above the tray) and coordinate with other trades to avoid conflicts. To facilitate the installation of cabling to each of the workstation locations throughout the facility, there will be a 1.25-inch conduit from a double-gang box at the workstation to the accessible ceiling (these conduits may need to be larger based on the cable type used – see below). Where the ceiling is not accessible, the conduit will be installed to the cable tray or all the way to the nearest TR.

8.41 Cabling

To properly extend communications network services into the facility, an outside plant (OSP) backbone cabling system consisting of OSP multi-pair copper cable (PE-89 type) and multi-strand single mode air-blown fiber

(ABF) optic cables (redundant; installed in tube cable) is required. If the current cables cannot be re-used, new cables will be designed from the College Data Center to the Main TR. Within the facility, an inside plant backbone cabling system will also be designed from the Main TR to each of the other TRs consisting of 25-pair copper cables, redundant tube cables and ABF cables, and RG-11 coaxial cables.

To provide voice and data services to devices throughout that facility, a horizontal cabling system will be designed. This will include Category 6 (or Category 6A) copper cable for voice, data, security cameras, and some AV requirements, and RG-6 coaxial cable for CATV requirements between the device and its serving TR. These cables will terminate at the device locations on appropriately sized and located faceplates and in the TRs on patch panels installed in floor-mounted cable and equipment racks. Now, a "standard office" configuration includes one (1) faceplate with three (3) Category 6 cables. A "standard classroom" configuration includes one (1) faceplate with four (4) Category 6 cables at the teacher location. Where data is required at other locations, a "standard data" configuration of two (2) data cables will be designed. Wireless access point locations will be designed throughout the facility, with coverage and density consideration, providing 100% coverage of the facility. A "standard wireless" configuration will include two (2) Category 6A at each location. Wall phone locations will be designed throughout the facility, including one (1) in each classroom. The "wall-phone" configuration will include a wall-phone faceplate with one (1) Category 6 cable. Emergency phones will be designed at each elevator lobby, as well as in each classroom. The "emergency phone" configuration will include one (1) Category 6 cable terminated in a biscuit-type jack.

8.42 Voice and Data Systems

The College is currently supported by an Avaya Voice over Internet Protocol (VoIP) phone system. Therefore, all voice connections will be VoIP. An appropriate quantity of telephones (the most recent version of the ones listed below) will be designed in each space as required. In each office, an Avaya 9608 IP Telephone will be provided. Wall phones will be Avaya 9608 IP Telephones. Conference Rooms will be equipped with Avaya B189 IP Conference Phones with Extension Microphones. All telephones will also include the appropriate licenses.

Supporting data communications requirements, the College is currently supported by a Juniper network. Therefore, in the Main TR, two (2) Juniper Networks MX10s or most recent like Juniper Networks product will be provided with two (2) 10G connections to each of the Edge Switch stacks in the other TRs. In each of the TRs, including the Main TR, a minimum of two (2) (more if needed based on the number of Category 6 and Category 6A cables that have been installed to that TR) 48-port Edge Switches, Juniper Networks EX4200-48PX or most recent like Juniper Networks product with two (2) 10G connections to the core switches, will be provided. Furthermore, one (1) CCTV Switch will be designed in each TR, including the Main TR for Stanley CCTV and door locks, Juniper Networks EX2200 or most recent like Juniper Networks product with one (1) 1GB connection.

To support this equipment, each TR will have a rack-mounted UPS that will be a minimum of a 6KVA 208V UPS with a 208V to 120V step-down transformer. Each UPS will be appropriately sized to support the amount of data equipment installed in the TR. Also, each equipment rack will include a rack-mounted power distribution unit similar to an APC AP7911A.

Wireless data access will be provided throughout the facility, with access points designed to provide 100% coverage. The College has standardized on Aruba Networks, namely the Aruba Networks AP225 for indoor and the AP224 for outdoor (or most recent like Aruba product). A heat map survey will be conducted prior to the installation of any wireless APs to finalize the AP locations throughout the facility.

8.43 Distributed Antenna Systems

Depending on how the renovation is designed, the College may need to investigate the use of a Distributed Antenna System (DAS) to provide wireless connections for public safety radios and emergency responder radios.

8.44 Audio-Visual Systems

The audio-visual (AV) systems will provide for the presentation of computer-generated material, traditional video source material, audio program material, as well as live speech and live presentations. Digital Signage displays for messaging, way-finding, etc. will be provided throughout the building. Video displays will also be provided in collaboration spaces to allow small group viewing of computer-generated material. Typical source devices for the AV system may include: computers, DVDs, document cameras, personal devices.

In all spaces where some type of recorded program material will be presented, a program audio system will be designed to reinforce the sound as part of the AV system. This includes the source device, an audio power amplifier, and loudspeakers. It may also include a digital signal processor (DSP), if required. In spaces where the normal spoken voice does not have sufficient volume to be heard intelligibly by all occupants of the room, a speech reinforcement system will be designed. This includes the same items as a program audio system, with the addition

of microphones and a microphone mixer (if this function is not provided by a DSP). Where required by the ADA, an assisted listening system will be included as part of the audio system design.

In addition to the basic audio and video equipment, most spaces that are AV equipped will have some type of AV control system. This system is designed to consolidate the control of all of the AV devices, as well as some room devices (e.g. lights, shades, etc.) into a single user interface. Depending on the type of space and the type of AV equipment, this user interface may be a simple push-button interface, or it may be a touch panel LCD device.

Depending on the room layout and the amount of equipment in the room, the AV equipment location may be a free-standing cabinet installed in casework, or it may be installed in a cabinet mounted in the wall or ceiling. Appropriately sized conduits or other cable pathways will be designed between the lectern, main equipment location, and any other points required to ensure proper functioning of the AV system.

The AV systems and the architecture will be coordinated to provide optimum viewing for all of the viewers in each room type. Typical distances allowed for viewing of different types of material are shown below.

Type of Viewing	Distance of Farthest Viewer
Film (movies)	8 x Image Height
Presentation	6 x Image Height
Detailed Inspection	4 x Image Height

To ensure optimum viewing, displays will be sized so that the farthest viewer of any video image will be no more than 6 times the image height away from the screen displaying that image. In cases where detailed inspection of the image is required, the display will be sized so that the farthest viewer will be no more than 4 times the image height away from the image. Where the room size will support it (i.e. where the farthest viewer is within proper range), direct view display devices will be designed for video viewing rather than projectors and screens. Typically, this will be an LCD type display. The benefits of these when compared to front screen projection are as follows:

- Better Contrast Ratio
- Greater Off-Axis Viewing
- Less Susceptible to Ambient Light

Where direct view displays are not available in a size appropriate for the size of the space, front screen projection will be used for video viewing. These locations will be provided with high resolution video projectors, and motorized, tab-tensioned projection screens with a matte white projection surface of unity gain.

It is envisioned that this will be a building with a significant usage by the public. To assist the public, a robust digital signage system will be provided. This will include building directories, way-finding, room scheduling, and various other messages. A building-wide public-address system to support music, announcements, etc. will also be provided.

In addition to education and collaboration spaces, there are some other types of spaces that will receive AV systems:

- The Interactive Room – will be equipped with gaming computers, as well as virtual reality headsets. There will also be a large display with audio to allow students to view any game contests.
- The Conference Center spaces – will be equipped for general presentations, however, the equipment in these spaces will be designed for large venues. The ability to stream uncompressed video and audio between conference spaces will be included in the AV system design. Room scheduling displays will be provided outside of all of the Conference Center meeting rooms.
- Performances spaces - will be equipped with an upgraded sound system with high quality full-range loudspeakers as well as loudspeakers designed for enhanced low frequency operation (i.e. subwoofers).

8.45 Security Systems

Building security measures will provide personal safety and security for occupants, as well as provide measures to protect personal and College property. These measures include site lighting, electronic access control, video surveillance systems, and Emergency Telephones.

8.46 Site Lighting

Adequate site lighting plays a large role in deterring/detecting criminal activity. Appropriate exterior lighting to the building entrances and along all paths in accordance with the College standards will be provided. The lighting must be designed to not produce glare which may mask unwanted activity. Lighting will be provided at all service entries and the loading area.

8.47 Electronic Access Control

The current access control system is the Basis V system by Stanley Security Systems. All components provided will be a part of that product line or recognized as compatible with it by Stanley. The College has standardized on the IDHMax product for virtually all interior door hardware.

The IDHMax is an integrated card reader, electric lock, REX, and door position monitoring device. Since this will be used throughout the facility, virtually all doors will be equipped with card readers (key over rides will be provided for all doors). Doors for which the IDHMax is not suitable, (e.g. storefront doors, electrically operated doors, etc.) will be equipped with wall-mounted card readers to provide access control at those locations.

Access control to and within the facility will be designed to provide flexibility in segmenting and securing major functional and access areas of the building from each other to allow management of the building by multiple end users and/or concurrent events. Life/safety and fire egress should be accommodated in all design scenarios.

The typical sequence of operation for access-controlled doors will be as follows:

Door is locked based on an owner determined schedule that has been programmed into the access control system. When door is "unlocked" free passage is allowed without use of a card. Passage through the "unlocked" door does not create an alarm event on the access control monitoring system. When the door is "locked" and in "card-only" mode, a valid card read shunts the alarm for the owner determined shunt time and unlocks the door allowing free passage. Failure of the door to close completely before the expiration of the shunt time will create a "door held" alarm event on the access control monitoring system. When the door is "locked" and in "card-only" mode, operation of the REX equipped hardware device (or activation of the interior motion sensor, if so equipped) shunts the alarm for the owner determined shunt time and allows egress through the door without creating an alarm event on the access control monitoring system. Failure of the door to close completely before the expiration of the shunt time will create a "door held" alarm event on the access control monitoring system. When in "locked" mode, opening of the door without either a valid card read, or activation of the REX device will create a "door forced" alarm on the access control monitoring system.

The access control system will comply with the Americans with Disabilities Act (ADA). The systems will be coordinated with other aspects of the building design such as fire alarm and life safety, door hardware, electrical systems, etc. The systems will have all required head-end equipment, including access control system panels and power supply, workstation(s) with monitor and keyboard, and software licenses.

8.48 Video Surveillance

A Video Management System (VMS) system currently exists on campus and all video surveillance system components will be compatible with that system. Currently, the Video Management System (VMS) in use on campus is the Pelco Endura system. This system has been furnished by and is supported by Stanley Security.

New video surveillance cameras provided for the project will be IP cameras with a minimum resolution of 1 megapixel, and up to 3 megapixels for certain areas where higher pixels per foot are required for identification purposes. Interior cameras will be positioned to view all entry/exit doors. Coverage of corridors, entrances and exits, areas of congregation and space with high value contents will be provided with video surveillance coverage.

The network supporting all the IP cameras will be physically separated from the School's primary data network. This will require that there be separate switches for all video surveillance devices. The video from the cameras will utilize separate strands of optical fiber from the telecommunications backbone to reach the primary storage elements in the data center in the Health Studies Building. Storage for the video from the cameras will be provided and installed in the data center. The required quantity of storage provided will be dependent on the number of cameras installed as well as the compression algorithm used, camera resolution, amount of motion, and days of storage required.

The video surveillance system will have all required equipment, as well as any camera or software licenses. A video network storage monitor will be provided.

8.49 Emergency Telephones

The College uses Code Blue emergency telephones. New, and relocated emergency telephones will be provided as required. Per college standards, emergency telephones are located in all instructional spaces and adjacent to all elevators. The consultant shall work with the College to identify if there is a need to install additional emergency phones in student areas, the dining hall, the large conference room and other areas of high traffic.

PART II
PROJECT JUSTIFICATION AND SCOPE

SECTION 9:
Instructions to the A/E Consultant and General Contractor

9.01 Overview

It is the intent of the College to create a functional, flexible, maintainable, and attractive facility that will serve the campus well for many decades. The College requires an innovative design solution that best addresses the program requirements, while optimizing the use of allocated funds for the project. The A/E Consultant and General Contractor will be hired in accordance with the College's purchasing policies and procedures, and will be approved by the Maryland Department of General Services (DGS) and Board of Public Works (BPW) prior to entering into a contract with the College.

9.02 Building Concepts

The building concepts shown in this document shall be explored and further evaluated. The A/E Consultant is to study and propose alternative concepts and layouts as necessary to ensure a final design that supports the mission and goals of the project.

9.03 A/E Consultant Team

The A/E Consultant is to be comprised of a team of professional architects, engineers, and other design specialists, including at a minimum:

- Architect
- Interior Designer
- Mechanical Engineer (HVAC and Controls)
- Plumbing Engineer
- Electrical Engineer, including a Lighting Specialist
- Energy Analyst
- LEED Designer
- Structural Engineer
- Site/Civil Engineer
- Landscape Architect
- Acoustical Engineer
- Fire Protection Engineer
- Geo-Technical Engineer
- Code/Life Safety Specialist
- Audio-Visual Specialist
- Telecommunications and Data Specialist
- Hygienist (for hazardous materials)
- Signage Specialist
- Cost Estimator
- Department of Permitting, Inspections and Enforcement (DPIE)-certified Peer Reviewer
- Commissioning Agent

9.04 A/E Consultant Team Scope of Work

The A/E Consultant is responsible during each phase of design to study, develop and recommend alternatives that will achieve cost efficiencies to maximize available funding. Creative design solutions should be sought rather than reductions in the defined project requirements. If, during design, the A/E Consultant recognizes architectural or engineering solutions more beneficial to the College than those indicated herein, the A/E Consultant is expected to bring these solutions forward to the College for immediate review and consideration. The A/E Consultant will be responsible for the following tasks.

1. Prepare and complete the following:

- Specialized studies, architectural and engineering design, energy and life cycle cost analyses, and preparation of appropriate plans and specifications for the construction of the expanded Largo Student Center
- All required design functions, including the gathering of data on existing and proposed conditions
- Construction specifications that include a work schedule for those items of work that could unduly disrupt campus operations
- Instructions on scheduling, staging, or similar information needed to achieve optimum construction efficiency

2. The design solution for both the site and the building should include and address, but not be limited to:

- Architectural and space planning solutions for the defined spatial relationships/layouts identified in the program document
- Finish solutions that meet the needs and requirements of end user programs, as well as environmental services and maintenance programs
- Issues of building, fire, public safety and security, and Americans with Disabilities Act (ADA) regulations, ensuring that all solutions are integrated and coordinated to work together
- Requirements to achieve a minimum of Leadership in Energy and Environmental Design (LEED) Silver Certification, with aspirations to achieve Gold, and energy efficiency in accordance with the International Energy Conservation Code
- Work with the College to conduct research and reevaluate meeting and conference space needs to support campus events based on the requirements of the campus community. If meeting and conference space needs have changed since the submission of the program, complete design services to propose new space ideas and concepts based on documented additional needs
- Studies to facilitate decisions regarding site development as it relates to building massing, scale and placement of the building
- Studies and plans to ensure the continued operation of facilities and roadways adjacent to the immediate construction area, including vehicular access from Campus Way South and circulation through the site to the new visitor drop off/pick up
- Plans for the development of the site surrounding the building to ensure that the facility is integrated with the adjacent academic core of campus

- Plans for pedestrian connections to existing facilities
- Plans for the demolition of existing site features and underground utilities necessary to facilitate construction of the new facility and site improvements

3. Submit to and for approval by the College the name of an individual, either in his/her own work force or as a consultant, to act as Energy/LEED Analyst for the project. The Energy Analyst will have proven experience in energy design analysis and will be a registered engineer or architect. The role of the Energy/LEED Analyst will be to:

- Coordinate disciplines within the design team to achieve energy efficient design and ensure LEED Silver certification as a minimum
- Review architectural, mechanical, and lighting submittals for compliance to energy guidelines prior to submission to the College
- Serve as the primary contact point for the College's Facilities Management
- Department
- Perform energy and LEED analysis and influence the building design to achieve the College's desired LEED status
- Coordinate commissioning into the design and construction process
- Ensure the Maintenance Management and Equipment Management process is completed
- Prepare required energy, maintenance and commissioning reports and certifications

4. Enhanced commissioning through the engagement and contracting of an independent, third-party commissioning agent is required of the A/E Consultant. Enhanced commissioning will allow the commissioning process to begin early in the design. Enhanced commissioning will follow the latest LEED guidelines applicable, and will be required to support any new changes in LEED guidelines should they be released during the project.

5. Provide the following:

- Site Analysis and Program Verification, Preliminary Design, Schematic Design, Design Development, Interior Design Contract Documents, Construction Documents, Construction Phasing Coordination, Bidding of Construction Services, Construction Administration, Completion & Acceptance Services, Building Commissioning, and Post Construction Services.
- Design performance criteria will comply with applicable sections of the Maryland Department of General Services (DGS) Procedure Manual for Professional Services, November 2015 edition or latest edition, and the requirements set forth in this Part II Facility Program.
- Design phase submissions to the College and DGS for approval will include at a minimum: Schematic Design, 50% Construction Documents, 95% Construction Documents and 100% Construction Documents (specifications and drawings).
- Each design phase will be submitted to the College in hard copy and electronic (CD and FTP site) format. Both electronic formats will include Auto-CAD files and PDF's. The College requires a minimum of twelve hard copy drawings (2 full-size, 10 half-size sets) and 7 hard copy specification documents. The Architect must place all files (drawings and specifications) on an FTP or website accessible to the College. The College also requires 15 individual sheets (full-size) of the Floor/Furniture Plan, Site Plan and Perspective Views.

6. Complete all work based on a mutually agreed to design schedule.

7. Attend a pre-design meeting and walk-through of existing facilities and site.

8. Design all components necessary for a fully functional educational facility, capable of performing (but not limited to) the functions described in this Part II Facility Program. The A/E Consultant will review and confirm and/or expand, as needed, all program requirements with the College prior to the start of schematic design. The specific program requirements and design criteria provided in the program are as accurate as possible, but should not be assumed to be all encompassing. It will be the responsibility of the A/E Consultant to propose any refinements or revisions to the program or overall design to meet the goals of the project and optimize funding for the project.

9. Review of the PGCC Facilities Master Plan and completion of a design that is consistent with and supports the long-term vision established in the plan for the College.

10. Attend, at a minimum, bi-weekly progress meetings with the College to facilitate an inclusive design process and collect information and input/feedback from College stakeholders for use in preparing a responsive design solution at each phase of design. Additional meetings with individual stakeholders are required during the program verification and schematic design phases of the project.

11. Serve as the technical advisor to the College for specific problems or modifications that arise during the design and construction, including program interpretation. The A/E Consultant will be required to read and address items discussed in this program as part of their contractual obligations and be responsible during the duration of the contract to recommend solutions and alternatives to the College that provide creative, cost effective solutions that achieve the project goals.

12. All utility service outages anticipated or needed to complete assessment and/or investigation work must be requested, approved by and coordinated with the College's Facilities Management Department at least ten days in advance of the requested outage.

13. Prepare a survey that documents all existing conditions of the site. The extent of the information and work required by the survey will include, but not be limited to, all existing topography, utilities, roads, parking lots and site improvements, sidewalks, pedestrian spaces, significant vegetation and natural features, and any legal restrictions that might be applicable. The A/E Consultant will submit drawings of building floor plans and roof plans, a narrative description of engineering/architectural and site requirements, and selection of major mechanical, electrical, plumbing and building systems to meet design requirements.

14. It is expected that all engineering specialists and consultants on the A/E Consultant team make site visits as necessary to perform site analysis, research, attend meetings and coordinate with other team members in the completion of each design phase submission. All cost of this work along with Construction Administration and Post Construction services needed for Commissioning, LEED certification, etc. will be included in the A/E Consultant Team fee proposal and subsequent design contract.

15. Perform assessment to determine the presence of hazardous materials in existing equipment or appurtenances which are likely to be disturbed in the performance of the work. Hazmat testing will be included in scope of work. Design for abatement of hazardous materials in compliance with regulations of the Maryland Department of the Environment, Maryland Air Administration, Maryland Environmental Code, Maryland Occupational Safety and Health Administration, National Emission Standard for Hazardous Pollutants, and the Environmental Protection Agency. The College does have a Hazmat report of the buildings involved in the scope of work, but it should only be used as a general guide.

16. Provide, produce and turnover to the College the following:

- Two (2) professional, 11" by 17", 3D colored architectural renderings of the final design which will be framed and matted suitable for both permanent display and black and white reproduction.
- An 18"x24" preliminary building/site colored rendering for presentations will be required during the schematic design phase. The rendering should illustrate at least (3) three views
- Two 4'x8' building design development colored renderings on a suitable media to allow for displayed and erection outside, but adjacent to the construction site. Each of the two renderings will illustrate the building and include information about LEED, College programs to be housed in the building and other pertinent information. The signs (including fabrication, matting, delivery, and installation) are part of the Architects scope of work
- A 3D physical model of the building and site
- When requested, rendering files will be turned over to the College for marketing and fundraising purposes. The A/E Consultant will work with the College to turn over the files in a format the College can use. In addition to renderings, the A/E Consultant will produce and present to the College 3D graphics and computer assisted models. 3D computer models will be required early in the design stage and must be developed and modified until final College approval. Key Spaces will be required to be modeled (At minimum 10 separate interior spaces must be modeled and presented to the College)

17. Provide periodic construction cost estimates at Schematic Design, 50% Construction Documents, and 95% Construction Documents. Projection of all costs connected with the project including items such as demolition, new construction, renovation, equipment installation, utility extensions, site development, testing & inspection, contingency, and escalation will be included in the cost estimate. The A/E Consultant is responsible for achieving the scope of the project construction cost within the design-to budget. Should the A/E Consultant determine that construction costs exceed the design-to-budget, the A/E Consultant will immediately notify Facilities Management in writing with the reason for increase and present value engineering options to bring the project back within the design-to-budget.

18. Provide calculations, charts, drawing, layouts graphs, photographs, actual samples, outline specifications, etc. to support conclusions for proposed design (at all design phases). Information is to be provided to the College in both digitized and flat copy formats. The consultant should propose site use and improvements, selection of materials, building systems and equipment, and methods of project delivery.

19. Advise the College of all life-cycle options, energy saving options and ways to reduce energy use. Submit supporting recommendations, Schematic Energy Analysis, and reports to the College for review, comments and approval.

20. Comply with the High-Performance Building Act for LEED Silver certification.

21. Provide all necessary survey and topographic information, including pertinent data concerning all applicable rights-of-way, easements, restrictions, etc. to the College. Perform all necessary tests, borings, samples and sub-surface tests as required by Prince George's County and the State of Maryland Department of General Services Procedure Manual for Professional Services. The A/E Consultant will collect all available information from the College regarding planimetric maps, topography, utilities and infrastructure and be responsible for contracting for all required support services, e.g. a surveyor, geotechnical services, utility locators, environmental specialists, etc.

22. Propose alternatives to the College for approval and then structure the construction documents with sufficient alternatives for a minimum of 10% or more of the project construction value to avoid cost delays associated with re-bidding.

23. All designs will comply with the latest applicable standards, regulations, and code sections, either now in effect or identified for future implementation. The A/E Consultant is responsible for producing a design that complies with applicable codes, ordinances, statutes, regulations and laws, and all standards and procedures for construction including:

- Regulations of the Maryland Department of the Environment
- Procedures for Implementation of Energy Conservation of the Maryland Department of General Services.
- International Building Code
- Code of Maryland Regulations
- National Fire Protection Association
- Americans with Disabilities Act
- Washington Suburban Sanitary Commission
- Boiler and Pressure Vessel Safety Act and Regulations
- National Electric Code
- National Energy Code, Standard 90, of American Society of Heating, Refrigerating, and Air-Conditioning Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- American Society for Testing Materials
- American Welding Society
- Maryland Green Buildings Council
- Prince George's Community College Technology Manual 2005
- Department of General Services Procedure Manual for Professional Services, July 2010 edition, or latest version.
- Chapter 527 (Senate Bill 234) High Performance Building Act – Applicable to Community College Capital Projects
- ASHRAE Standard 90.1 Energy Standards
- LEED Reference Guide for Green Building Design and Construction
- Codes such as Mechanical (2009 IMC with modifications, 2006 International Mechanical Code); Electrical (2008 NEC, 2002 NFPA 70 National Electric Code and Subtitle 2 – Group 14B and Subtitle 9); Fire/Life Safety (2009 NFPA 101 Life Safety Code)
- Crime prevention through environmental design concepts and principles

24. Prepare, issue and submit finish schedules, color schemes and finish samples to the College for approval. The submission will be in a format that the College/Consultant can present the schedules/schemes to a large group. Finish boards will be required for presentation of various recommendations and options. Once finishes are approved by the College, the A/E Consultant will turn over two (2) copies of the finish binder(s) to the College. The finish binders will contain all approved samples and be labeled with basic product and location information.

25. Prepare detailed technical specifications, drawings and bid proposals & information incorporating the College standard format for all work. Unless otherwise specified by the College, all specifications are to be non-proprietary and performance based. Information is to be provided to the College in both digitized and flat copy formats. Drawings and specifications will include quality of materials and workmanship, finishes, and will contain sufficient information to enable the General Contractor to make accurate estimates of quantities of materials as a basis for bids as well as construction and installation.

26. Provide with the construction documents a project book containing the product specifications and general means and methods of installation of fixtures and equipment. The construction documents and book will clearly identify and describe the requirements for detailed and comprehensive operation and maintenance manuals for all equipment and systems, in an organized format approved by the College, to be provided by the General Contractor. The book will include a requirement for attic stock and spare part allowances for early consumables such as filters for air handling equipment, etc.

27. Design and produce/fabricate update of the following:

- The campus Site Plan to incorporate and illustrate the new Largo Student Center footprint. The College will provide the current Site Plan in electronic format
- The campus vehicle and pedestrian signage maps

28. Advise the College as to what permits (during the design and permitting phase) are needed. On behalf of the College complete all required paperwork and documentation for submission and acquisition of all needed permits (i.e. MDE, DPW&T, MNCPPC, Prince George's County, etc.) and approval for all construction documents required by State and local authorities. Should reviews by Maryland State agencies, local, county or regional agencies require changes to the drawings and specifications, the A/E Consultant at no additional cost will make all necessary changes required to achieve required approvals and/or permits. All permits needed up to the construction permit will be filed for and paid for by the A/E Consultant and reimbursed by the College. The construction permit will be paid for by the College.

29. Conduct a pre-bid meeting and walk-through at the site for all interested contractors. Respond to contractor inquiries regarding the project.

30. Attend bid opening onsite and receive and tabulate all construction bids.

31. Should the low bid exceed the estimated probable construction cost/budget the A/E Consultant, at no additional cost to the College, will provide all necessary

revisions to the bid documents to modify the documents to be rebid within the funds available.

32. Review bids and check references (3) of contractors. Provide written recommendations documenting the responses of the references for successful bidder.

33. Record and distribute "minutes" for all project meetings attended (design and construction). Participation at construction meetings will be required.

34. Conduct a pre-construction conference with the College's representatives and the contractor's field leaders.

35. Review all contracts, bonds, and other standard forms necessary for the project.

36. Review and approve General Contractor's submittals. Review and approval all shop drawings, product data, material samples, schedules, substitutions, and other submittals prior to remitting to the College for final approval.

37. Inspect the work at the start of each new construction activity and weekly thereafter to ensure adherence to plans and specifications. After inspection, a written report will be provided to the College. The A/E Consultant will reject work that does not conform to the requirements of the Construction Documents. Sub-consultants will inspect all work needed that involves specialized review. The College will have the right to stipulate specific sub-consultant site visits (at no additional cost to the College) if the College finds the sub-consultant lacks the experience necessary to review new activity work.

38. Review contractor's proposals for change orders (scope and cost) and make recommendations and comments as to the validity of the changes, and if they should be approved, modified or rejected. Provide comprehensive and accurate line-by-line breakdowns and assessments of contractor costs/proposals including, but not limited to: materials, quantities, equipment, manpower, labor rates, etc. Assessments will be by a qualified professional with a mastery of the project scope, and who possess a high-level expertise in construction costs and the local market. The professional will be engaged during the design stage, and work closely with the consultant and each sub-consultants to gain a comprehensive understanding of the project and project details. Design team will employee a professional, which when needed can also obtain trade/subcontractor cost proposals to be used to validate, challenge, and disprove contractor change order costs. Provide the College a letter for each change order specifically responding to each change order. The consultant will provide, at its sole expense any related change order services to include, but not limited to needed site visits, meetings, research and revised drawings. Review General Contractor's request for information and provide responses in a timely fashion.

39. The A/E Consultant will employee the service of highly skilled and qualified Construction Administration (CA) representatives. CA representatives should be advocates of the College's budget, project completion schedule, and overall quality of building and site construction work. CA representatives must be able to manage a fast pace construction site, assess site conditions in the field, quickly develop solutions to problems, manage sub-consultants, and respond to project documents (RFI's, COR's, PCO's, submittals and shop drawings, etc.,) in a timely manner. Consultant will ensure RFI's are responded to in 7 business days, and Potential Change Orders and submittals are responded to in 10 business days. Any construction delays or costs because of not responding in a proficient and expeditious manner will be bore by the consultant. Without additional costs, the consultant will complete all design work as is necessary to answer RFI's, COR's, PCO's, submittals, etc.

40. Review General Contractor's request for information and provide responses in a timely fashion.

41. The A/E Consultant will make additional site visits to resolve conflicts due to design deficiencies in a prompt manner (no longer than 24 hours).

42. Review and recommend for approve General Contractor payment applications. The A/E Consultant will advise the College of any inaccuracies and /or issues with the payment application based on site observations and the Consultants professional judgment.

43. Prepare a written punch list sorted and organized as directed by the College when notified by the General Contractor that the contract work is completed.

44. Conduct final inspection of the work and follow-up inspections as necessary to insure completion of punch list and warranty items.

45. Recommend final acceptance of work, where appropriate and requested for by the College. As Architect/Designer of Record, certify installation as complying with Prince George's County's Commercial Inspection Program requirements.

46. Conduct inspections to determine the date or dates of Substantial Completions and the date of Final Completion. The A/E Consultant will forward to the College warranties and similar submittals required by Contract Documents. The A/E Consultant will issue a final Project Certificate for Payment upon compliance with the requirements of the Contract Documents.

47. Provide the College with five copies of as-built data including amended drawings as approved. The copies will be as follows (3 hard copies, and 1 electronic PDF CD, and 1 electronic Auto-CAD file).

48. The General Contractor and all subcontractors will

keep an on-going record of changes to the work for future incorporation into the as-built drawings. Each recording must be dated. The A/E Consultant will verify that as-built drawings are being developed and maintained by the General Contractor during the construction phase of the project. Discrepancies in the as-built documents will be brought to the College's attention immediately. The final as-built drawings are to be submitted to the College in the form of two different media types. One type will be a full set of sealed (architectural, fire protection, mechanical, electrical, plumbing, landscape, civil, etc.) mylar sheets that include all change orders, field alterations, etc., added/deleted during the course of construction. The second media type will be by recordable electronic means, using Autodesk software and supplied on a rewritable CD-r disc.

49. Prepare a set of as-built "record" drawings which will be coordinated with the General Contractor and include distinctive color-lines, indicating all changes which have been made during construction. This information will be based on records kept on the job site by the General Contractor and items noticed and documented by the A/E Consultant.

50. Review General Contractor's operations and maintenance manuals to ensure completeness. The A/E Consultant will reject manuals that are incomplete, inaccurate or below standards.

51. Complete LEED commissioning, reporting and work as required by the U.S. Green Building Council (USGBC). During Post Construction, participate in commissioning activities that extend beyond the occupancy date. Provide sufficient team resources to perform walk-thru inspections at mutually established milestones and complete all work, including resubmittal responses to USGBC or any other agency. The consultant will obtain, complete and submit all LEED documents necessary to obtain USGBC LEED Gold approval. Documents include completing a full Green Education program/PowerPoint and designing a pamphlet to be used for an educational tour of the building.

52. Design improvements to the exterior including sidewalks, walkways, entrances, service yard and loading area access, adjacent parking lots, site lighting, landscaping, exterior building lighting, exterior building façade and skin, security improvements, etc.

53. Attention should be paid to the exterior façade of the building to not only correct and repair brickwork and windows where needed and desired but to also look at introducing new building elements that could include changing the look of the exterior of the building (in part).
54. Provide space tabulation comparisons by room for net assignable square feet (NASF) and total building area in gross square feet (GSF) proposed in the design compared to the allocation for the space in the program as outlined in the Summary Table in Section 3. This comparison should be organized by a HEGIS Code breakdown following the space allocations contained in Summary Table in Section 3 of the document. These tabulation comparisons will be documented on each design phase floor plan submission and on area, volume and efficiency (AVE) forms.

55. Space sheets in Section 3 detail the overall design, performance and furniture-fixtures-equipment (FF&E) requirements of each space programmed in the facility. The A/E Consultant will use these sheets as a guide and will validate sizes of spaces, how spaces integrate with each other, equipment and material listed, and present design options for consideration in best achieving the project goals.

56. Provide floor plans that illustrate how required FF&E will be accommodated and how and where utility service will be provided to support FF&E requiring such. The A/E Consultant is to identify and locate the "built-in" FF&E items in the contract documents and specify manufacturer, style, sizes, finishes, color, mounting requirements, etc. in enough detail to allow the General Contractor to price and include in their contract.

57. Provide a complete and integrated interior design package that includes all required services, samples, product information, color presentation boards, renderings, drawings, specifications, and cost estimates. These services will include but not be limited to the interior design and coordination of the building; selection and or coordination of interior paint colors, finishes, and materials; design of wall, floor, and window treatments; architectural signage and graphics (interior and exterior); art work, and accessories. The package will also provide for the inclusion of all FF&E. All FF&E will be shown in plan and elevation as necessary to demonstrate that all programmed functions can be accommodated. The A/E Consultant will provide design coordination services for any FF&E requiring special environmental conditions and/or building system conditions and connections as well as public space furniture.

58. Identification of means and methods of installation and connection with building utility services, and provision of necessary clearances for convenient safe use and maintenance of equipment will be included in the interior design documents. These documents will be fully coordinated with mechanical, electrical, structural, plumbing (i.e. building systems) and all other pertinent construction documents. The College will provide the selected A/E Consultant with a list of FF&E required during the design development phase. These requirements will be presented in two categories: 1) Fixed Equipment – equipment that will be included in the construction contract; and 2) Movable Equipment – new equipment that will be purchased and installed via separate contracts. The A/E Consultant will suggest FF&E in addition to any items suggested by the College.

59. Increase the College's Visibility. Submit the Largo Student Center project for at minimum (1) one AIA Design

award and submit the project for consideration into two publications.

9.05 General Contractor Scope of Work

The College will hire a General Contractor to construct the Largo Student Center project in accordance with construction documents (technical specifications and drawings). The General Contractor will be hired in accordance with the College's purchasing policies and procedures, and will be approved by the Maryland Department of General Services (DGS) and Board of Public Works (BPW) prior to entering into a contract. At a minimum, the General Contractor will be responsible for:

- Completing all work in accordance with construction plans and specifications
- Removing any existing obsolete systems equipment, partitions, interior finishes, and structural members which are not compatible with the demolition and new construction design. Care will be taken to avoid damage to existing building components scheduled to remain
- Protecting adjacent buildings including preventing dust and debris from the construction site to enter into adjacent buildings HVAC systems. Construction will not disrupt the continued operation of all building activities outside the immediate construction area.
- All utility costs associated with construction of the building
- Performing hazardous materials abatement required for the removal of existing system components and finishes in compliance with all appropriate EPA, OSHA, and State of Maryland regulations
- Constructing the project in accordance with construction documents and specifications and in accordance with the agreed to schedule, as jointly approved by the General Contractor and the College.
- Constructing the project in accordance with all applicable County and State codes. More specifically, the building code of the State of Maryland, which includes the latest editions of the International Building Code (IBC) for basic building, mechanical, and energy conservation codes, National Electric Code, and ASHRAE standards. In addition, the General Contractor is responsible for adhering to all codes and standards imposed by the County, State, College, and any regulatory agencies or jurisdictions involved in the design and construction activities of Prince George's Community College
- All work associated with the construction will be performed during the College's normal working hours, which are 7:30am to 4:30pm., Monday through Friday unless prior written approval has been given by the College
- Restoring all areas disturbed or damaged in the performance of the work
- Receiving, storing and securing all goods and materials on the job site. The General Contractor will make appropriate arrangements, and coordinate with authorized personnel at the site, for the proper acceptance, handling, protection, and storage of all materials and equipment delivered to the site in the completion of the project. Costs of all shipping to the site will be the General Contractors responsibility. The College central receiving warehouse will not be available for receiving or storage of materials and equipment for the project
- All utility disconnections/connections and outages will be carefully performed so as not to damage existing systems/connections or materials or affect their reuse and coordinated with the College to minimize disruption to campus operations
- Any damage to existing building systems to remain during construction resulting for General Contractor's operations will be replaced as new by the General Contractor at no expense to the College
- Employing a utility locating firm to identify and mark existing utilities within and adjacent to the work area to avoid damage to existing utility services and avoid service interruptions during the performance of the contract work. The cost for locator service will be included in the construction contract
- Demolition, removal and disposal of materials resulting from the project in accordance with County, State, Federal and College requirements and regulations. The costs of removing and disposing of said accumulated debris from the project site will be the General Contractor's full responsibility
- Attending bi-weekly construction progress meetings and recording and distributing meeting "minutes" for all progress meetings
- Coordinating appropriate testing and commissioning tasks to verify functioning of the building systems in accordance with construction documentation and specifications in the presence of representatives of the A/E Consultant and the College
- Guarantee that all materials and workmanship under the contract to be free from defects for a period of one year. The General Contractor will replace any defect at no cost to the College during this period

9.06 Information Provided to A/E Consultant

- *Prince George's Community College Facilities Master Plan, 2012 - 2022*
- Prince George's Community College Technology Manual 2005
- Facilities Condition Assessment for Largo Student Center


Adventure

APPENDIX A:

Project Review and Consistency Report

Project Title: Largo Student Center Renovation/Addition

Project Location: 301 Largo Road Largo, Maryland 20774; Prince George's County; Intersection of Campus Way South and Maryland Route 202.
(County and nearest Major intersection)

Project Description: The project involves a comprehensive renovation and reconfiguration of the existing Largo Student Center building (69,116 GSF) and construction of a 64,731 GSF addition to the building. A primary goal of the project is to expand and transform the existing building into a facility with greater education and social offerings for students.

Approximate Funding Share			
LOCAL	**STATE**	**FEDERAL**	**OTHER**
$24,978,330	$39,068,670		

		TIER 1
Y	**N**	
■		Does the project add capacity to an existing facility or provide new capacity for an area not currently served by the facility?
■		Does the project facilitate changes in the existing pattern of growth?
		TIER 2
■		Is the project consistent with the local comprehensive plan?
■		Does the project support development in a suitable area, a designated development area, or a redevelopment area?
■		Can the project be designed to prevent adverse impacts to sensitive areas?
■		If in a rural area, does the project promote compact growth in existing population centers?
■		Does the project provide opportunities to conserve resources?
■		Does the project promote economic growth and development in accord with the other elements of the State's Growth Policy?
Explain "no" answer on reverse. If determination is that the project is "inconsistent," proceed to Tier 3.		
		TIER 3
	■	Do extraordinary circumstances exist which make the project or action necessary to construct despite a finding of inconsistency in Tier 2? If so, document.
	■	Is there no reasonably feasible alternative to the project? If so, document.

Determination: X Consistent ☐ Inconsistent with extraordinary circumstances

Sponsor Agency Contact: Mr. Henry Dickson Phone: 301.546.3057

This review is undertaken by the State of Maryland pursuant to §5-7A-02 of the State Finance and Procurement Article. Projects or actions are evaluated for consistency with the State's Economic Growth, Resource Protection, and Planning Policy in accord with Executive Order 01.01.1992.27.

Project Title: Prince George's Community College (PGCC) Largo Student Center Renovation/Addition

Project Location: 301 Largo Road Largo, Maryland 20774; Prince George's County; Intersection of Campus Way South and Maryland Route 202.

Project Description: The project involves a comprehensive renovation and reconfiguration of the existing Largo Student Center building (69,116 GSF) and construction of a 64,731 GSF addition to the building. A primary goal of the project is to expand and transform the existing building into a facility with greater education and social offerings for students.

Approximate Funding Share (Total: Design, Construction and F&E)			
LOCAL	**STATE**	**FEDERAL**	**OTHER**
$24,978,330	$39,068,670		

Determination

X Consistent

☐ Inconsistent with extraordinary circumstances

Brief description of extraordinary circumstances:

Sponsor Agency PGCC
Date May 1, 2018

Sponsor Agency Contact
Mr. Henry Dickson
Phone: 301.546.3057

Return to
State Clearinghouse
Maryland Department of Planning
301 West Preston Street
Baltimore MD 21201-2365
410-767-4490; FAX 410-767-4480

APPENDIX B:

New Building Project Checklist

APPENDIX B
New Building Project Checklist

Item #	Item	YES	No	N/A	Narrative in
A	Architectural style preferences	■			Part II Program
B	Work Schedules or phases	■			Part I Program
C	Coordination with Master Development Plan	■			Part I Program
D	Funding Constraints	■			Part I Program
E	Site selected	■			Part II Program
F	Preferred Vistas	■			Part II Program
G	Excavation, clearing, razing constraints	■			Part II Program
H	Other Construction in Area	■			Part II Program
I	Utilities on site	■			Part II Program
J	Special design features	■			Part II Program
K	Space Needs: Present and Future				
	Entire Facility	■			Part I Program
	Functional areas	■			Part I Program
	Rooms	■			Part I Program
L	Space Needs: Net Sq. Footage				
	Entire Facility	■			Part II Program
	Functional areas	■			Part II Program
	Rooms	■			Part II Program
M	Special dimension and space requirements	■			Part II Program
N	Nature of work and services described	■			Part II Program
O	Functional and spatial layouts	■			Part II Program
P	Workload projects	■			Part II Program
Q	Special working hours or shifts	■			Part II Program
R	Work flow described	■			Part II Program
S	Clerical - professional ratio	■			Part I Program
T	Client - staff ratio	■			Part I Program
U	Client - staff traffic preferences	■			Part II Program
V	Office layout preferences	■			Part II Program
W	Special room/area features	■			Part II Program
X	Climate control considerations	■			Part II Program
Y	Furniture and equipment needs	■			Part II Program
Z	Special lighting needs	■			Part II Program
AA	Information technology needs (voice, video, data, wire-less)	■			Part II Program

Item #	Item	YES	No	N/A	Narrative in
BB	Special access/egress requirements	■			Part II Program
CC	Preferred Floor, wall or ceiling material	■			Part II Program
DD	Security Considerations				
	Electrically controlled doors	■			Part II Program
	TV-monitoring system	■			Part II Program
	Secured utilities	■			Part II Program
	Secured windows	■			Part II Program
	Motion Detectors	■			Part II Program
	Door and window alarm	■			Part II Program
EE	Alarm links to offsite locations	■			Part II Program
FF	Considerations to be given to:				
	Equipment storage and maintenance	■			Part II Program
	Heat and sound insulation	■			Part II Program
	Linen and janitor closets	■			Part II Program
	Utility area	■			Part II Program
	Physical plant needs	■			Part II Program
	Trash removal	■			Part II Program
	Delivery dock	■			Part II Program
	Escalator, elevator, stairways	■			Part II Program
	Fire protection and sprinklers	■			Part II Program
	Food preparation and delivery	■			Part II Program
	Dining Facilities	■			Part II Program
	Client and staff transportation systems	■			Part II Program
	Signage and entranceway needs	■			Part II Program
	Accommodations for youth, aged, and handicapped	■			Part II Program
	Restroom and shower facilities	■			Part II Program
	Special water supply or utility needs	■			Part I Program
	Recreation/play areas	■			Part I Program

APPENDIX C:

Environmental Assessment Form (EAF)

This form is to assist the reviewers in determining whether a proposed action could cause significant natural and socio-economic environmental effects and thus require an Environmental Effects Report.

DEPARTMENT: Maryland Higher Education Commission
DIVISION: AGENCY: Prince George's Community College & Department of General Services
PROJECT TITLE: Largo Student Center Renovation/Addition
PREDICTED DATES:
COMMENCEMENT: July 2019 (Design)
COMPLETION: December 2023 (Construction)
PROJECTED COST: $64,047,000 (Design, Construction and F&E)

1. Background Information
a. Give a brief description of the proposed action/project.
The project involves a comprehensive renovation and reconfiguration of the existing Largo Student Center building (69,116 GSF) and construction of a 64,731 GSF addition to the building. A primary goal of the project is to expand and transform the existing building into a facility with greater education and social offerings for students.

b. Describe the geographical area(s) that will be affected by the action/project.
The project site is located on the existing Largo Campus of Prince George's Community College, within coordinates N=444,718, E=1,361,252 of the Maryland Grid system. An area map is attached.

2. Assessment of Significant Environmental Effects
a. The following questions should be answered by placing a check in the appropriate column(s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

In answering the questions, the significant beneficial and adverse, short and long term, effects of the proposed action, on-site and off-site, during construction and operation should be considered.

A.	LAND USE CONSIDERATIONS	YES	NO	Comments
1	Will the action be within the 100 year flood plain?		■	
2	Will the action require a permit for construction or alteration within the 50-year flood plain?		■	
3	Will the action require a permit for dredging, filling, draining or alteration of a wetland?		■	
4	Will the action require a permit for the facilities for solid waste disposal including dredge and excavation spoil?		■	
5	Will the action occur on slopes exceeding 15%?		■	
6	Will the action require a grading plan or a sediment control permit?	■		■
7	Will the action require a mining permit for deep or surface mining?		■	
8	Will the action require a permit for drilling a gas or oil well?		■	
9	Will the action require a permit for airport construction?		■	
10	Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?		■	
11	Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wild land?		■	
12	Will the action affect the use of any natural or man-made features that are unique to the Country, State, or Nation?		■	
13	Will the action affect the use of an archaeological or historical site or structure?		■	

B.	WATER USE CONSIDERATIONS	YES	NO	Comments
14	Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water		■	
15	Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?		■	
16	Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?	■		■
17	Will the action require a permit for the drilling of a water well?		■	
18	Will the action require a permit for water appropriation?		■	
19	Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?		■	
20	Will the action require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?		■	
21	Will the action result in any discharge into surface or sub-surface water?		■	
22	If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?		■	

C.	AIR USE CONSIDERATIONS	YES	NO	Comments
23	Will the action result in any discharge into the air?	■		
24	If so, will the discharge affect ambient air quality parameters or produce a disagreeable order?		■	
25	Will the action generate additional noise which differs in character of level from present conditions?	■		■
26	Will the action preclude future use of related air space?		■	
27	Will the action generate any radiological, electrical, magnetic, or light influences?		■	

D.	PLANT AND ANIMALS	YES	NO	Comments
28	Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?		■	
29	Will the action result in the significant reduction or loss of any fish or wildlife habitats?		■	
30	Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?		■	

E.	SOCIO-ECONOMIC	YES	NO	Comments
31	Will the action result in a preemption or division of property or impair their economic use?		■	
32	Will the action cause relocation of activities, structures or result in a change in the population density or distribution?		■	
33	Will the action alter land values?	■		■
34	Will the action affect traffic flow and volume?		■	
35	Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource?		■	
36	Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?		■	
37	Is the action in accord with federal, state, regional and local comprehensive or functional plans - including zoning?	■		
38	Will the action affect the employment opportunities for persons in the area?	■		■
39	Will the action affect the ability of the area to attract new sources of tax revenue?		■	
40	Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?		■	
41	Will the action affect the ability of the area to attract tourism?		■	

Notes

6: The project will disturb a significant amount of soil area. A grading plan and sediment and erosion control plan and permit will be required in accordance with Maryland and Prince George's County requirements.

16: The project will change the overland flow of water and the absorption rate of the site. A stormwater management plan and permit will be required in accordance with Maryland and Prince George's County requirements.

25: Construction activities will temporarily generate noise during the construction of the project. Construction noise will be limited to the greatest extent practical to minimize disruption to classes and the adjacent neighbors. There will be no long term generation of noise that differs from the character of the level of present conditions.

33: The project will result in new facilities and infrastructure that will increase the value of the land.

38: The project will provide additional employment opportunities for teaching faculty and staff to support the expansion of academic programs.

44: The project will be partially state funded. These dollars will likely result in dollars to local and state design and construction companies and vendors for development and completion of the project resulting in positive economic impacts. In addition, the project will result in additional educational capacity to educate and train workers to meet current projected workforce demands in Prince George's County and Maryland.

APPENDIX D:

Project Impact Statement

APPENDIX D
Project Impact Statement

College Name and Campus Location: Prince George's Community College – Largo

Address: 301 Largo Road, Largo, MD 20774

Project Title: Largo Student Center Renovation/Addition

Contact Name: Henry L. Dickson
Title: Director of Planning, Design and Construction
Department: Facilities Planning and Management
Office Telephone: (301) 546-3057
Mobile Telephone: (240) 508-9156
Email Address: dicksohl@pgcc.edu

Calendar Year this project was first listed in Facilities Master Plan: 2012

This project funding request for [DESIGN] is scheduled for Fiscal Year: FY 2020

PHASE	START (Mo/Yr)	END (Mo/Yr)
Design	07/2019	05/2021
Construction	07/2021	12/2023
Equipment	12/2023	02/2024
Project Completion	NA	02/2024

A. PlanMaryland Component

1. In what planning area is the proposed project located (provide map coordinates in chart, below)? Is the proposed planning area designated a Priority Funding Area (PFA)?
The project is located in an established community in a designated priority funding area.

2. Is the project site currently served by public water and sewer or are there plans to extend public water and sewer to this area?

The project site is currently served by public water and sewer.

3. How does this project support PlanMaryland "Goals and Objectives" (Chapter 3) and "Guidelines for Capital Budgeting" (Chapter 5)?

The project supports PlanMaryland "Goals" by:
Concentrating investment in new development and renewal of existing facilities on the Largo campus where there is existing and planned infrastructure.
Preserving and protecting environmentally sensitive land and resources on campus from the impacts of development.

The project supports PlanMaryland "Objectives" by:
Accommodating development in a desirable, compact, and sustainable community within a defined growth area.
Building in areas served by adequate sewer and water service, in ways that are compatible with local community character.
Taking advantage of existing development, infrastructure and public services through infill and redevelopment before developing new land outside of growth areas.
Promoting community activities in the Largo Student Center where residents can easily access and meet their daily needs. Many residents and students in the community can walk or take mass transit to access the facility.
Not disturbing or affecting historic structures.

The project supports PlanMaryland "Guidelines for Capital Budgeting" by:

Proposing to use state investment in the renewal and expansion of an existing facility to encourage development and economic growth in a location already suited to accommodate growth and achieve PlanMaryland Goals and Objectives.
Not compromising or damaging historic, cultural, and natural resources or environmentally sensitive lands.
Promoting and enhancing capital improvements in an established community.

4. If the project does not appear consistent with the PlanMaryland "Goals and Objectives" and "Guidelines for Capital Budgeting," what alternatives were considered and why was the preferred alternative chosen?

The project site is consistent with PlanMaryland "Goals and Objectives" and "Guidelines for Capital Budgeting".

5. PlanMaryland: Project Coordinates and Environmental Impact

Location*		Places**					
Latitude	Longitude	Targeted Growth	Established Community	Future Growth	Large Lot Development	Rural Resource	Supports Place Objectives?
38.888223	-76.824201	N	Y	N	N	N	Y
		Overlays**					
		Priority Preservation Area	Natural Resource Area	Water Resource Area	Climate Impact Area	Historic & Cultural Resource Area	Supports Overlay Objectives?
		N	N	N	N	N	Y

B. Project Impact Statement & Summary

Project Description and Justification

Provide a brief summary of the purpose and scope of this project including its impact on campus inventory and enrollments:

Description:
The project involves a comprehensive renovation and reconfiguration of the existing Largo Student Center building(69,116 GSF) and construction of a 64,731 GSF addition to the building. A primary goal of the project is to expand and transform the existing building into a facility with greater education and social offerings for students. The proposed building will provide critical amenity offerings for the Prince George's County community. In addition to fulfilling program needs for Largo Student Center, another critical goal of the project is to create a sense of 'Place' on campus as well as in the community. The project will expand the Largo Student Center towards the front door of the campus to create a public gateway for the visitors and students, thereby creating a prominent aesthetic and massing presence at the intersection of Campus Way South and MD Route 202.

Building additions are planned to be constructed on the northwest and east ends of the existing building. The total area of Largo Student Center after construction will be 78,970 NASF/133,847 GSF and will include program elements such as: classrooms and laboratories to support adult education programs, ballroom and meeting spaces to accommodate 550 participants in banquet seating style, new and expanded food service operations to serve the campus community, student study, social spaces and lounges, student maker/market space, Student Government and Club space, Student Success and Engagement offices and support space, Auxiliary Services and Events offices and support space, Environmental Services offices and support space, and an expanded College Store with a PGCC Cares food pantry and clothes closet.

Renovation of the building will address existing deficiencies identified and documented in this program and replace building systems and equipment that has met or exceeded designed service life. Building systems and equipment that have been upgraded or replaced within the past decade will be evaluated for reuse and incorporation into the design. Much of the interior of the existing building will be reconfigured and comprehensively refurbished to be integrated with the building additions. The exterior walls and glazing will require substantial upgrading to achieve energy efficiency levels and performance required to meet the minimum LEED Silver certification requirements of the project. Additional upgrades and improvements will be needed to address current code and ADA requirements. The existing site is the area around and adjacent to the Largo Student Center. The site immediately adjacent to and surrounding the building is relatively flat with a gentle incline from south to north and extends to the north where the grade is steeply sloped up to MD Route 202 and to the west up to Campus Way South. Both underground and above ground utilities traverse and run adjacent to the proposed project site. The site is improved with surface parking (Lot L for students, faculty, staff and visitors), an outdoor plaza to the east, green space to the north and east, adjacent buildings to the south, pedestrian scale lighting to the east and west and vehicular and parking lot scale lighting to north and west. Existing underground utilities include telecommunications, sanitary sewer, storm sewer, domestic water, gas and low and medium voltage electric lines. Overhead poles carrying electric power run along Campus Way South and MD Route 202. Vehicle (passenger and service) access is provided via road access from the north bound lane of Campus Way South. In addition, an electronic message board sign is located at the corner

Justification:
The primary purpose of this project is to deliver much needed additional space for academic classes, programs, functions and activities of PGCC students. This additional space will be used to support programming and activities to provide enhanced and enriching student experiences inside and outside of the classroom. These academic, social and educational engagements and experiences are fundamental to the development of the "whole" person and instilling the PGCC values to prepare students for a successful and productive role in society.

The project will also provide more space that advances the Largo Student Center as the hub of campus where students, faculty, staff and visitors can come together to engage in a variety of environments including lounges, dining areas, meeting and programming spaces. A large portion of the additional space will include revenue generating facilities and functions such as expanded food service and conference facilities that will serve campus and the greater community.

The project impact on campus inventory will be to help reduce the current and projected 10-year space deficits.

1. Explain the impact of this project on local and/or Maryland workforce shortages and briefly describe how this project will contribute to Maryland's initiative to achieve a 55% college completion rate by 2025.

Prince George's Community College continues to attract highly qualified students who could help to address many of the state's workforce demand shortages. The proposed

project focuses on strengthening many of Prince George's Community College's general and adult education program and courses. Increasing the number of qualified graduates of Prince George's Community College will help Maryland address current and projected workforce shortages. In addition to adding more training and education space, this project will deliver student service space to support student recruitment, retention and graduation initiatives focused on raising the level of student success and contributing to Maryland's initiative to achieve a 55% college graduate level by 2025.

2. This project will conform to the requirements of the Maryland High Performance Buildings Act and will include Green Building concepts.

LEED Certification level expected:
Silver _____ Gold __X__ Platinum _____

The project will look at energy efficient infrastructure and environmentally safe reclamation for irrigation, white reflective energy star roof, building insulation above standard energy code requirements, day lighting controls and devices, high performance windows, Low Volatile Compound (VOC) materials and finishes, use of recycled materials, Forest Stewardship Council certified wood products, variable frequency drives (VFD's) on all secondary pumps, VAV air handling units with VFD's, high efficiency motors, energy recovery unit for office portion of building, hydronic heat in lieu of electric heat, small AC units are heat pumps (not electric heat), multiple chillers for efficient partial load operation, computer room designed with hot/cold aisles to address loads efficiently, communication rooms served with chilled water units in lieu of split system condensing units, building systems commissioning, sensor faucets on lavatories, sensor flush valves on urinals and water closets, low flow (.5 gal per flush) urinals, high efficiency (98%) water heater, daylight & occupancy sensors & lighting control systems, and high efficiency lighting, etc.

APPENDIX E:

Impact Table

FY 2020 Capital Budget
Capital Project Impact Tables
Submit This Table With The Impact Statement Document (MS Word) For This Project
Prince George's Community College
Largo Student Center Renovation/Addition

Project Building Space	NASF BY HEGIS CATEGORY: BEFORE & AFTER PROJECT COMPLETION										
	Classroom	Laboratory	Office	Study	Special	General	Support	Health Care	Total	Total	
	100	200	300	400	500	600	700	800	NASF	GSF	Efficiency
Project Completion	6,075	0	13,970	8,220	0	50,105	500	100	78,970	133,847	59%
Pre-Construction (If a renovation)	0	0	7,166	200	0	40,519	3,402	0	51,287	69,116	74%
Change	6,075	0	6,804	8,020	0	9,586	-2,902	100	27,683	64,731	43%

Project Classroom & Laboratory Space	Classroom		Laboratory		Laboratory	
HEGIS Code	110		210		220	
	# Rooms	# Seats	# Rooms	# Seats	# Rooms	# Seats
Project Completion	5	160	0	0	0	-
Pre-Construction (If a renovation)	-	-	-	-	0	-
Change	5	160	0	0	0	-

Project Enrollment Capacity*	CONSTANT: 1 FTDE = 17 WSCH In this project, Classroom FTDE/WSCH = 74%; Laboratory FTDE/WSCH = 26% **					
	Formula Driven Data					
Method 1 - FTDE as Base	ENTER HERE***	Total FTDE X .74	Total FTDE X .26	Formula Driven Data		
	Total FDTE	Classroom FDTE	Laboratory FDTE	Classroom WSCH	Laboratory WSCH	Total WSCH
Project Completion	107	79	28	1,346	473	1,819
Pre-Construction (If a renovation)	-	-	-	-	-	-
Change	107	79	28	1,346	473	1,819

*** Enrollment capacity is project specific, not campus-wide**

APPENDIX F:

Cost Estimate Worksheet

APPENDIX F
Cost Estimate Worksheet

DEPARTMENT OF GENERAL SERVICES
COST ESTIMATE WORKSHEET

* Escalation set at 3.5% for 2018, 4.0% for 2019 and succeeding years

Project Title: Largo Student Center Renovation/Addition
Project Number: N/A
Location: Prince George's Community College, Largo, MD

Institution: Prince George's Community College
Estimate Reference Point: Jan-18

Estimate Date: 26-Apr-18
Prepared by: H. Dickson
Agency/AE: WRA/Cannon

1. Design Phase: [X]BUDGET; [ ]SCHEMATIC; [ ]DESIGN DEVELOPMENT; [ ]50% CONSTRUCTION DOCUMENTS (CD); [ ]95% CD; [ ]100% CD
2. Project Type: [X]NEW CONSTRUCTION; [X]RENOVATION; [ ]MAJOR; [ ]MINOR; [ ]SITE; [ ]UT
3. Design Period: Jul-19 May-21 22 months (Incl. review)
4. Const. Period: Jul-21 Dec-23 29 months
5. Description: A comprehensive renovation of and addition to the Largo Student Center to provide additional instructional, study, dining, lounge, office and student programming space.
6. Est. Bid date: Aug-21
7. Est. Mid-Pt: Sep-22 56 months from reference point

8. Area (gsf)	Bsmt.	Renovation	New
Total		69,116	64,731

Total NSF	78,461
Total GSF	137,651
Efficiency Factor	1.75
Percent Efficiency	57.0%

9.	Structure:			$/sf		
A.	Basic: New	64,731	square feet	x $325.00		21,037,575
B.	Basic: Renovation	69,116	square feet	x $225.00		15,551,100
C.	Asbestos Removal:		square feet	x $1.00		0
D.	ADA Accessibility					0
E.	Interior Demolition	35,000		$4.00		140,000
F.	Other: Information Technology			$0 /gsf		0
G.	Subtotal					36,728,675
H.	Regional Construction Factor:					1.00
I.	Subtotal: (line g x line h)					36,728,675
J.	Escalation to Mid-Pt:			18.29% *		6,717,534
K.	Subtotal (bid cost):					43,446,209

10.	Site:		
A.	Site Improvements	5% of Line 9G	1,836,434
B.	Parking Lot and Service Access Recofiguration and Expansion		300,000
C.			0
D.			0
E.			0
F.			0
G.	Subtotal:		2,136,434
H.	Regional Construction Factor:		1.00
I.	Subtotal: (line g x line h)		2,136,434
J.	Escalation to Mid-Pt:	18.29% *	390,746
K.	Subtotal (bid cost):		2,527,179

Fund Source:		$0
(For DGS Use)	_____	$0
		$0

11.	Utilities		
A.	General Utility Work	5% of Line 9G	1,836,434
B.	Utility Relocation		400,000
C.			0
D.			
E.			
F.			
G.	Subtotal:		2,236,434
H.	Regional Construction Factor:		1.00
I.	Subtotal: (line g x line h)		2,236,434
J.	Escalation to Mid-Pt:	18.29% *	409,035
K.	Subtotal (bid cost):		2,645,469
12.	Subtotal (9K+10K+11K = Bid Cost):		48,618,857
13a.	Green Bldg. Construction Premium:	2.0%	972,377
13b.	Total Construction Contingency	5.0%	2,430,943
14.	Inspection and Testing:	2.2%	1,069,615
15.	CPM Schedule		32,500
16.	CM Cost Construction	3.5%	1,786,743
17a.	Movable Equipment (Agency Estimated):		4,000,000
b.	Information Technology Equipment (Agency Estimated):		0
18.	A/E Basic Services Fee:	7.5%	3,828,735
19.	A/E Special Services Fee:	2.5%	1,276,245
20.	A/E Reimbursables:	1.5%	30,630
21.	TOTAL PROJECT COST:		64,047,000
22.	Total Construction Costs & Related Cost:		54,911,035
23.	Prior Construction Funds:		0
24.	New Construction Funds Required:		54,911,000
25.	Total Design Fees & Related Cost:		5,135,610
26.	Prior Design Funds:		0
27.	New Design Funds Required:		5,136,000

FY 20 Request:		Cost/Str @ MP
		$324.60
Planning	5,136,000	Cost/BSU @ MP
Construction	54,911,000	$363.24
Equipment	4,000,000	Total Cost/SF
TOTAL	64,047,000	$478.51

FY20 Planning request $2,568,000 ($1,566,480 state share)
FY21 Planning request $2,568,000 ($1,566,480 state share)
FY22 Construction request $27,455,517 ($16,747,855 state share)
FY23 Construction request $27,455,517 ($16,747,855 state share)
FY24 F&E request $4,000,000 ($2,440,000 state share)