STUDENT UNION
EXPANSION & RENOVATION
BT-685

SEPTEMBER 2016

FAU STUDENT UNION EXPANSION AND RENOVATION BT-685

Boca Raton Campus

FLORIDA ATLANTIC UNIVERSITY
BOCA RATON, FLORIDA

Florida Atlantic University
FACILITIES PROGRAM
BT-685 STUDENT UNION
EXPANSION & RENOVATION

REVIEWED AND APPROVED:

FACILITIES MANAGEMENT:
This is to certify that this document meets the intent of the Design & Construction Policy & Procedure #2 (Development of Facility Program), existing code requirements, project schedule and budget, and is consistent with the Campus Master Plan.

Numa Rais, Director of Design & Construction Services

Robert Wells, Assistant Vice President for Facilities Management

OFFICE OF INFORMATION TECHNOLOGY:
This is to certify that this document meets the requirements of OIT.

Jason Ball, Associate Provost

PROGRAM COMMITTEE:
This is to certify that this document contains the recommendations of the Program Committee.

Michael Cocuzza, Director, Student Affairs

DIVISION OF STUDENT AFFAIRS:
This is to certify that this document meets the requirements of the Division of Student Affairs.

Corey King, Vice President for Student Affairs

DIVISION OF ACADEMIC AFFAIRS:
This is to certify that this document meets the requirements of the Office of Academic Affairs.

Gary Perry, Provost & Chief Academic Officer

DIVISION OF FINANCIAL AFFAIRS:
This is to certify that this document meets the requirements of the Division of Financial Affairs.

11/21/16

Dorothy Russell, Vice President for Financial Affairs &
Chief Financial Officer

DIVISION OF ADMINISTRATIVE AFFAIRS:
This is to certify that this document meets the requirements of the Division of Administrative Affairs.

11/21/16

Stacy Volnick, Vice President for Administrative Affairs &
Chief Administrative Officer

FLORIDA ATLANTIC UNIVERSITY:
This is to certify that this document has been reviewed by the administrative leadership at Florida Atlantic University and that the material contained herein is forwarded with the President's approval and recommendation.

11/21/16

John Kelly, President Date

A. HISTORY AND GENERAL DESCRIPTION

Florida Atlantic University is a public research university with multiple campuses along the southeast Florida coast serving a uniquely diverse community. It promotes academic and personal development, discovery, and lifelong learning. FAU fulfills its mission through excellence and innovation in teaching, outstanding research and creative activities, public engagement and distinctive scientific and cultural alliances, all within an environment that fosters inclusiveness. The following paragraphs are excerpts from a 2012 statement of requirements by Larry Faerman, former Director of the Multipurpose Facility. The entire document is included in the appendix to this program.

The FAU Student Union is located in the southwest portion of the Boca Raton Campus and is the center for community and leadership, facilitating student learning and involvement through a variety of programs, facilities, and services.

The Student Union (formerly University Center) opened to the University Community in 1973. There have been renovations/additions in 1974, 1980, 1985, 1995, and 2002. Both the traditional residential and commuter populations of FAU have increased substantially since 2002 and this has led to a significant increase in student organizational involvement and activities. The addition created in 2002, while significant in that it added a facility to house a traditional board plan, was less than adequate to address the student population at the time, let alone what it has grown to currently and what we should anticipate in the next ten (10) years.

The intention of adding space to the Student Union is to meet both student and institutional needs. The largest space on campus to hold a banquet is the Live Oak Pavilion, which at approximately 6,000 square feet can comfortably seat 300 maximum at 60" banquet rounds. This same space can accommodate approximately 400 maximum in a lecture set, and while the Life Long Learning Auditorium holds just over 400, there are no options for gatherings of over 400 without utilizing the Carole and Barry Kaye Performing Arts Auditorium which seats 2,385.

The proposed project is primarily an expansion to the existing Student Union that will allow for the addition of a 1,000 seat ballroom/banquet facility. FAU desires to create a highly functional and flexible space that can accommodate numerous functions and multiple programs based on variety of reconfiguration options. The facility is to include adequate space for pre-function, catering and storage necessary to support a host of functions. The facility is to convey an impressive, stat-of-the-art image. Spaces must be technologically equipped (projectors, screens, speakers/sound systems), acoustically reliable, well lit, properly conditioned, and arranged in a manner that maximizes shared-use spaces while accounting for public spaces, private functions and back of the house operations.

B. DESIGN OBJECTIVES

Although not central to the campus, the Student Union serves as the campus living room where students and members of the FAU community gather to study, socialize, eat, host events, attend meetings and engage in campus life. The design of this facility is promote student life, encourage student engagement and reinforce the FAU spirit and brand.

Primary design objectives for this project are the expansion of the Student Union to accommodate a 1,000 seat banquet facility with high-functionality for adapting to numerous configurations to serve an array of programs. Dividable partitions are to be incorporated as part of the design to create smaller sections for flexible room configurations to accommodate different size groups. The new expansion is to include necessary support functions such as a pre-function space, catering kitchen, fully integrated audio visual control room, and ample storage.

Renovation scope, includes re-visioning the entry sequence and lobby of the existing Student Union building. Currently the lobby serves as game room, social hall and pre-function space for the Carole & Barry Kaye Auditorium. The renovated lobby should maximize the programmable area, to clearly define the various functions, while providing a clear sense of space and identify for the Student Union.

This project also includes replacing the roof on the existing structure

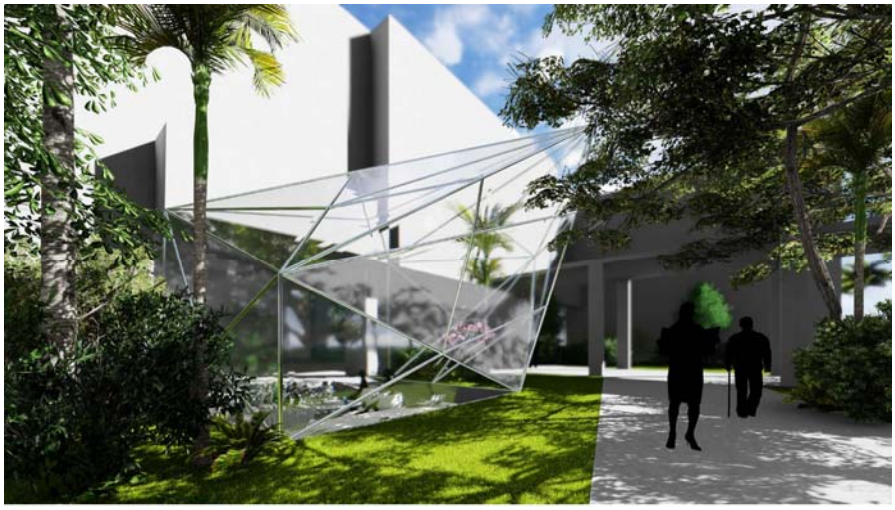
The selected firm will provide site master planning, schematic design, design development, construction documents and construction administration for the referenced project.

The following concept images were developed in house in an effort to relay the overall vision for the proposed Student Union Expansion & Renovation project:

FAU Student Union: *Proposed Site Development*

FAU Student Union: *Canopy Perspective 01*

Proposed enclosed atrium/collaborative space



The following general goals and objectives shall be considered and addressed throughout design and construction.

1. LANDSCAPING AND EXTERIOR LIGHTING

Landscaping, landscape irrigation, hardscape and exterior lighting shall be incorporated into the design for function, aesthetics, security and safety. Consideration should be given to opportunities to extend and link the exterior elements to interior public and lobby functions. Lighting and security shall be furnished to connect the proposed building expansion with the public and parking areas of the site. The use of the exterior plaza, hardscape, should be enhanced to promote overflow for pre-function activities.

2. WALKWAY AND PEDESTRIAN TRAFFIC

The project shall include walkways and plazas, adequate for connecting this facility to other facilities and parking areas to promote pedestrian access.

3. VEHICULAR TRAFFIC

Separation of service vehicular traffic and pedestrian traffic is of utmost importance. The safety of pedestrian circulation should be a first priority. For this project, special attention should be given to provisions for drop off and valet service associated with the banquet hall. The design team must

consider access to various elements of the building for food service, event setup load in and maintenance vehicles. Covered walkway connections from the banquet hall to Parking Garage I is desirable to protect patrons from the elements.

4. CONTEXTUAL SITE AND BUILDING DESIGN

Site and building design shall emphasize the design of the total campus entity rather than the individual building. While each building is required to be designed as an appropriate response to its particular program, budget and site requirements, it must also be compatible with the existing fabric of the campus. The proposed expansion has a unique opportunity to provide a new façade on the north side of the original 1974 structure, while the renovation of the interior lobby space should create a bold statement promoting student spirit and the university brand.

The project should seek to create functional open space in the form of building entries, courtyards, plazas or lawns between the project and existing buildings. It is expected that two or more options will be presented to the Owner during the schematic design phase.

5. SUSTAINABLE DESIGN, GREEN ARCHITECTURE AND RECYCLING

The University promotes environmental quality and resource conservation through sustainable design, green architecture and recycling in its planning and development. This project will be designed and built to at least the U. S. Green Building Council's LEED Silver standard or equivalent.

6. PROJECT BUDGET

The University expects the architect to develop design and contract documents which will be consistent with the established project budget. This obligation is mandatory. The architect shall work with the University's construction management consultant to prepare a cost breakdown at each stage of the project design. If these estimates exceed the budget at any stage, the architect will work with the university to modify the construction documents or the program to conform to the budget at no additional costs to the University.

C. CONSTRUCTION DELIVERY METHOD

In accordance with F.A.C. 6C-14.0055.(2), the following responses are presented for University approval for the selection of CM at Risk as the project delivery method:

(2).(a): *Size of the project is sufficiently large and/or complex to require major emphasis on the qualification of the contractor to provide specific expertise in highly specialized cost estimating, value engineering, and scheduling during the design process with continuity of construction management through both design and construction phases.* – The Student Union will need to remain open and operational during the construction of the new expansion and the renovation of the existing main lobby. Coordination of phasing plan and logistics of construction will need to be evaluated during the design phase to avoid any potential conflicts.

(2).(b): *The initial construction funding is appropriated and construction is begun with the expectation of substantial appropriation in subsequent years, thereby making it advantageous to retain a single contractor for the duration of the project*. – Not Applicable

(2).(c): *The project is an alteration of an occupied facility which requires working around or relocating occupants while keeping the facility fully operational*. – Not Applicable

(2).(d): *The project is a repair or renovation where the conditions requiring correction cannot be determined and specified without extensive contractor involvement in the removal and examination process during the design phase.* – Yes.

(2).(e): *The timely completion of the project is critical to the University's ability to repay debt services or to meet grant obligations.* – Not Applicable

A. FAU STRATEGIC PLAN

Consistent with FAU's "Strategic Plan for the Race to Excellence", this facility will promote FAU's sense of place.

B. ACADEMIC PROGRAM REVIEWS

Not Applicable

C. RECOMMENDATIONS OF THE REVIEW CONSULTANTS
Not Applicable

C. JUSTIFICATIONS
Not Applicable

A. FACILITY DEFICIENCIES

Growing student population and program activities have necessitate renovation of existing meeting rooms within the Student Union to house new student organizations; thereby creating a shortage of available meeting spaces. Additionally, the university does not have adequate space to accommodate large scale events for 1,000 attendees. The proposed banquet hall, with seating capacity for 1,000 attendees, equipped with dividable partitions for reconfiguring smaller sections, will help accommodate the current and near term needs of the University community.

The Student Union is an ideal venue for providing such a facility to not only serve the students but provide an event center for hosting FAU and local community functions. An update and reconfiguration of the existing lobby space and additional space are all required to meet the current and future requirements.

B. ALTERNATIVE SOLUTIONS

Not Applicable

C. QUANTITATIVE ANALYSIS OF PROGRAM SPACES

Not Applicable

D. PROJECT AND SURVEY RECOMMENDATIONS

Not Applicable

A. THE ADOPTED CAMPUS MASTER PLAN

The proposed project is consistent with overall intent of the Campus Master Plan (CMP) prepared and adopted in 2009. An amendment to the Capital Improvements Element section of the CMP will be required to program the scope and siting of the proposed project. Following interpretations of the relevant sections are within the permitted threshold established under the CMP.

ANALYSIS OF THE CAMPUS MASTER PLAN

1. **URBAN DESIGN ELEMENT**
   The areas associated with the proposed project will require modification of the open dedicated open space located north of the Student Union as noted in the Urban Design Element. The updated Master Plan will address the offset of the open space required for the Student Union expansion

2. **FUTURE LAND USE ELEMENT**
   The Land Use Element of the CMP identifies the proposed project site as open space. Due to its proximity to the Student Union, identified as support space, this location is logical for the expansion of the Student Union. The updated Master Plan will reflect this change in land use.

3. **SUPPORT FACILITIES ELEMENT**
   In response to Objective 1A under Goal 1, the expansion of the Student Union is needed to keep pace with the demands of enrollment growth. The Student Union serves as a primary support building for the student body and in serving the campus event needs.

4. **UTILITIES ELEMENT**
   This project is within the academic core and drainage for future expansion will be within the Basin Core. The building will tie into the university main utility plant for chilled water. Facilities management will coordinate expansion of utilities services through Physical Plant and Office of Information Technology for utilities and telecommunications infrastructure provisions.

5. **TRANSPORTATION ELEMENT**
   The project will provide for necessary service drives, pedestrian and bicycle paths to provide for safe and effective modes of transportation around the facility. Primary function of this building is to serve the university community and to provide a service to the community at large, at times where the use of the space does not conflict with university activities. It is not anticipated that this facility will generate any additional traffic along perimeter roads.

6. **INTERGOVERNMENTAL COORDINATION ELEMENT**
   This element is ongoing and FAU will continue to communicate with its host community regarding this project.

7. **CAPITAL IMPROVEMENTS ELEMENT**
   This project has been included on FAU's annual Capital Improvement Plan.

A. SITE CONDITIONS

The existing facility is near the southwest corner of campus, but still within the main campus traffic loop. It is readily accessible from the academic, athletic and residential areas of the campus.

1. **Site Topography** (CM-N-04.00-09/97 B.1)
Site topography and soil conditions on the Boca Raton Campus are relatively uniform. The site is flat, and the soil is sandy (Flatwood soils of the Immokalee / Basinger Association).

2. **Storm Drainage** (CM-N-0.4.00-09/97 B.2)
Site water table is typically 6 to 7 feet below grade. F.I.R.M. flood hazard zone for central campus is V8, area of 100-year coastal flood with velocity (wave action), base flood elevation 10. Storm water drainage for any expansion will follow the requirements of the master South Florida Water Management District Conceptual Drainage Permit.

3. **Vehicular and Pedestrian Circulation** (CM-N-04.00-09/97 B.3)
Any new walks or service roads are to be implemented as to enhance pedestrian flow and general safety.

4. **Site Vegetation** (CM-N-04.00-00-09/97 B.4)
The existing site vegetation consists of natural grasses or sod. This project will improve the existing site vegetation through the use of appropriate and compatible landscaping.

5. **Archaeological History** (CM-N-04.00-00-09/97 B.5)
There are no sites of archaeological or historical significance that would be impacted by this project.

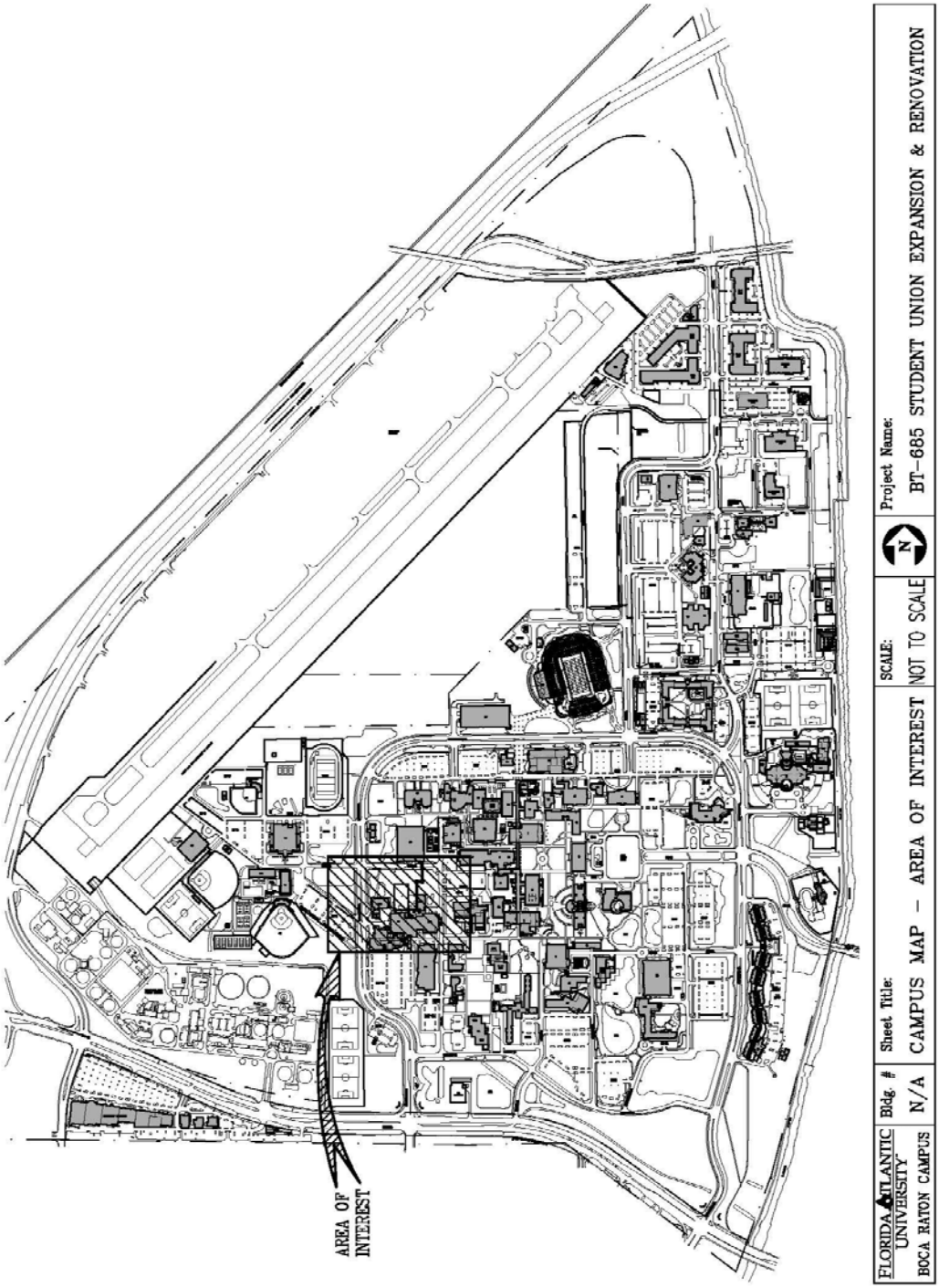
6. **Existing Utility Locations** (CM-N-04.00-00-09/97 B.6)
Refer to Section X, Utility Impact Analysis for campus utility infrastructure information.

7. **Architectural Significance of Adjacent Structures** (CM-N-04.00-00-09/97 B.7)
Although there are no significant architectural elements adjacent to this site, this project will be compatible with the overall architectural style on the FAU Boca Raton Campus.

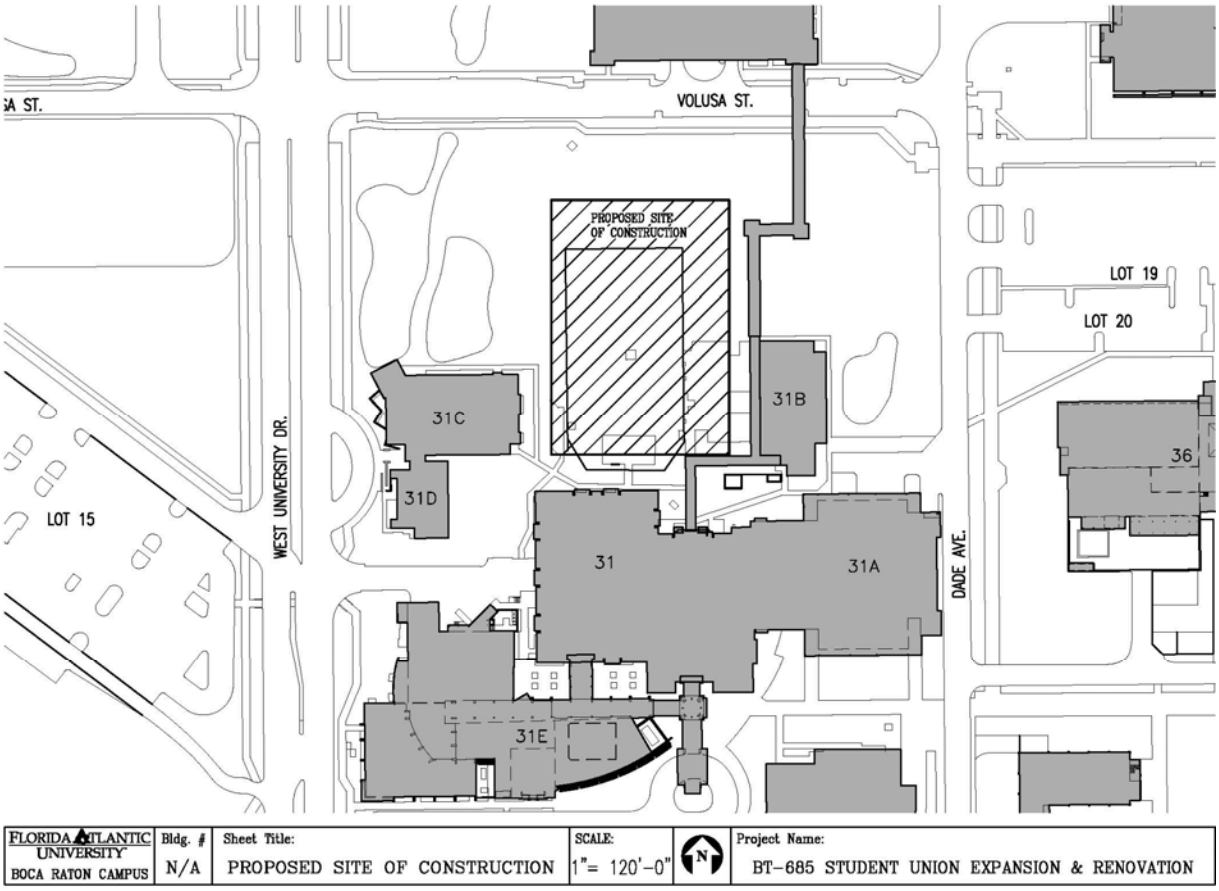
8. **Direction of Prevailing Winds** (CM-N-04.00-00-09/97 B.5)
Prevailing winds are from the Southeast.

B. CAMPUS MAP & SITE MAP

The following map of the existing Boca Raton Campus shows the proposed general location for this project. See the existing infrastructure drawings in Section X for additional existing site information.



Site Map


VOLUSA ST.
PROPOSED SITE OF CONSTRUCTION
LOT 19
LOT 20
31C
31B
31D
36
LOT 15
WEST UNIVERSITY DR.
31
31A
DADE AVE.
31E
FLORIDA ATLANTIC UNIVERSITY
BOCA RATON CAMPUS
Bldg. #
N/A
Sheet Title:
PROPOSED SITE OF CONSTRUCTION
SCALE:
1"= 120'-0"
N
Project Name:
BT-685 STUDENT UNION EXPANSION & RENOVATION

A. PROGRAM AREA TABLES

NEW SPACE:

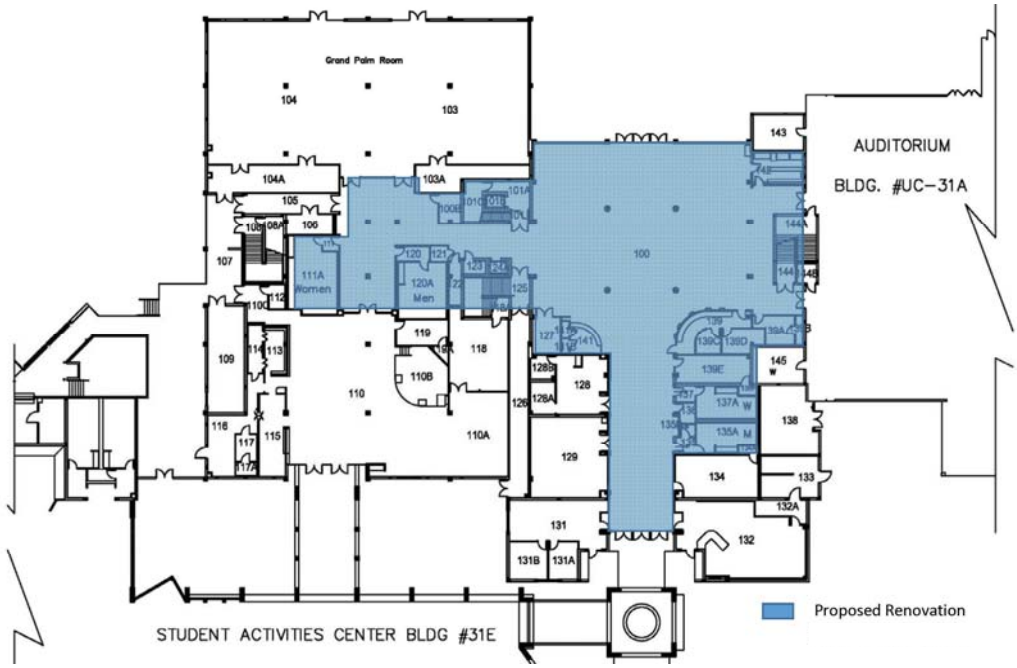
PROGRAM AREA TABLE

Reference: State Requirements for Educational Facilities Chapter 6, Section 6.1, Size of Spaces and Occupant Criteria Table

	DESCRIPTION	NO. OF STATIONS	NASF/ STATION	AREA/ SPACE	NO. OF SPACES	TOTAL NASF	TOTAL STATIONS
600	**Assembly**						
610	Banquet Room	1000	15	15000	1	15000	1000
615	Pre-Function Room	1000	5	5000	1	5000	
615	Audio Visual Control Room	3	70	210	1	210	
615	Catering Kitchen			2000	1	2000	
615	Storage – Chairs / tables			1500	1	1500	
	Restrooms			400	4	1600	
	Sub-Total					**25,310**	

RENOVATION SPACE:

DESCRIPTION	ROOM NUMBER	AREA/ SPACE	TOTAL NSF	TOTAL STATIONS
Assembly				
Lobby	100	9,639	9,639	N/A
Ticket Office	Suite 139	876	876	
Information Center	141	140	140	
Restrooms	(111, 120, 135, & 137)	1,468	1,468	
Stairs	(101, 125 & 144)	572	572	
Sub-Total		12,695	12,695	



B. OTHER PROGRAM ISSUES

The following important issues are to be considered by the design team. Many requirements are repeated in more detail in the FAU Cost Containment Guidelines and Professional Services Guidelines that are available for viewing at http://www.fau.edu/facilities/avp .

1) As the site is relatively flat, the building site shall be designed to assure positive drainage away from the building.
2) Telephone and data services shall be provided in accordance with the standards specified in Section XI of this program.
3) Provide meters, according to FAU standards and guidelines, for all utilities serving the building. Reference Section X for details about utility connections.
4) The building and paved site areas shall be completely accessible in strict accordance with the Americans with Disabilities Act and all other pertinent codes. This will be the sole responsibility of the design team.
5) Provide an emergency generator (with lockable screened wall) for a minimum of all life safety functions. Additional capacity to be provided for catering area and other spaces as directed by the University.
6) Provide lightning protection per University standards.
7) Energy efficient systems and lighting shall be used to the greatest extent possible, in accordance with University standards.
8) Provide conduit for voice and data connectivity to the existing campus backbone.
9) Provide for connectivity to the existing campus energy management system and life safety systems.
10) The building shall have 100% sprinkler protection.
11) Provide surge protection for the entire building.
12) Provide for screened trash storage area for recycling, etc.
13) Provide for the covered outdoor storage and charging of up to several golf carts.
14) Provide card readers at major entrances. Provide conduit and J-boxes, as required to all exterior doors for monitoring door status and automatic locking from a central police location.

A. **UTILITIES IMPACT ANALYSIS –** PROVIDED BY FACILITIES MANAGEMENT, ENGINEERING & UTILITIES

1. CHILLED WATER:

This (1,000) Seat Banquet Hall project will require approximately (262) Tons of Air Conditioning, based on the Bldg.31E Addition project P-6240 with a similar use. This space will be divided by movable partitions into a number of smaller areas. Multiple Air Handlers may be desired for supplying these multiple areas. (419) GPM of CHW is required, given a 15F delta T. The existing 6" CHW pipes, which are within this site west boundary running North-South, supplies (198) GPM to Bldg.31C and (70) GPM to Bldg.31D. There are existing 4" valve CHW taps at this site, west boundary. In addition, As Built plans for Bldg.31B indicate existing 4" CHW taps at the Southwest corner on this site as well, but not obvious nor field verifiable. Another alternative is replacing the existing 6" branch pipes with new 8" CHW pipes, approx.. 380LF, given a new flow velocity less than 5 feet per second. The existing South Loop Pump #SCHWP-2, mfr PACO, model 1012-9/0 KP is scheduled for (4,256) GPM at (92.46) FTHD. However, the existing connected load on the South Loop is (6,042) GPM, according to the Bldgs. Design plans. This SCHWP#2 may need replacing with a larger capacity pump. The Central Utilities Plant Chillers total capacity is (6,886) Tons. The existing connected load is (6,461) Tons according to the Bldgs. Design plans. The existing Chillers seem to have capacity for covering this additional load with no redundancy.

CHW connections shall be De-Coupled. Control Valves shall be 2-Way. AHU and pump motors power circuits shall include VFDs. An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

Rehabilitation of the Bldg.31 Lobby area shall include new A/C units.

2. HEATING:

Electric Reheat for Space Heating will be a load of approx.. (172) KW, based on Bldg.31E Addition.
The existing Elect Feeder ampacity available for this project shall be confirmed.

3. ELECTRICAL:

Electric load will be approx.. (1,980) KVA, based on Bldg.31E Addition project P-6240 excluding kitchen equipment. The existing Elect Feeder ampacity available for this project shall be confirmed. The nearest existing Feeder Manhole is located near the southwest corner of Bldg.31E, requiring approx.. 800LF of trench work.

An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

4. POTABLE WATER:

The demand flow is approx.. (12,000) GPD, given three shifts of (1,000) seats per day, (02) flushes per seat, and (02) Gallons per flush.

The Potable Water supply is the existing 8" Water Main pipe running North-South along the western boundary of this site. Fire Sprinklers system is required, including a Reduce Pressure Backflow Preventer. Fire Hydrant locations and access shall be coordinated with the City of Boca Fire Dept. Existing Fire Hydrant #FH016 may require relocation, as well as resetting Valve Box #W187, when the Detention Area Drain Field is expanded for this project. Trenching for Potable Water will be approx.. 100LF.

This Campus Water Loop system is supplied from the City of Boca Raton Utilities with adequate supply.

An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

5. SANITARY:

The sanitary sewage flow estimate is approx.. (12,000) GPD. The nearest Gravity Drain Sanitary Manhole is approx.. 100LF west of this site. The condition of the existing 15" sanitary sewage pipes is questionable. The existing sanitary sewage pipes downstream should be assessed to verify integrity of existing pipes prior to directing additional flow.

An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

6. IRRIGATION:

The existing 12" RU Irrigation Main runs north-south along the west of West University Blvd. A new branch line, requiring approx.. 500LF of Trench work, is required for supplying the new Planter Area on the eastside of this new Bldg. Site Irrigation around this new Bldg. will be zoned and metered according with FAU standards. Irrigation Water supply is unlimited at this time from the City of Boca Raton Utilities.

An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

7. STORM WATER MANAGEMENT:

Storm Water drain pipes could connect to the existing Storm Drain Catch Basins located near the western boundary of this site, approx.. 50LF trench work.

An FAU Excavation Permit shall be issued prior to any digging. Building Permits are required from the FAU Permit Dept. for all Trades. All Utilities shall be metered.

SFWMD Environmental Resource Permit is required before beginning any land use or construction activity that could affect wetlands, alter surface water flows or contribute to water pollution.

The ERP program is implemented by DEP. Environmental Resource Permits (ERPs) benefit Florida by preventing stormwater pollution to Florida's rivers, lakes and streams and helping to provide flood protection. The ERP program regulates the management and storage of surface waters, and provides protection for the vital functions of wetlands and other surface waters.

LWDD Permit is required ensuring proper stormwater drainage.

NPDES Permit is required. Florida's NPDES Stormwater Program regulates discharge of stormwater to surface waters or to a municipal separate storm sewer system (MS4) from construction activities that disturb more than one acre, or are part of certain larger projects that disturb more than one acre. Operators of construction activities that meet the criteria for coverage must obtain a NPDES stormwater permit and implement a stormwater pollution prevention plan.

8. NATURAL GAS:

Existing Natural Gas pipe runs through the proposed site for the Building expansion. Florida Public Utilities will reroute this Gas pipe around this new Bldg.at a fee. Florida Public Utilities will ensure capacity exists for this new Building, if required. It is Standard Operating Procedure for FPU providing and installing gas lines and meters to the new buildings including Gas Cocks on the Bldg. side of the meter.

The existing Gas Meter to Bldg.31 shall be recalibrated.

9. TELECOMMUNICATIONS:

Telecom will be required. Please refer to the Telecom Dept. detailed specs for descriptive narratives.

The nearest Telecom Manhole is on the southwest corner of Bldg.31E. Trench work, approx.. 800LF will be required. This may be coordinated with the Elect trench work following the same path.

10. FIRE ALARM SYSTEM:

The Fire Alarm System will be remotely monitored by the FAU Police Department.

The existing Fire Alarm system in Bldgs. 31 and 31A is semi-addressable with no additional capacity. The system shall be upgraded or replaced with audio visual devises, pull stations, elevator recall, BFP Tamper switches, and Sprinkler Flow alarms connected to the FAU Police Station through an automatic dialer.

11. ENERGY MANAGEMENT CONTROL SYSTEM:

The Energy Management System will be monitored and controllable remotely at the Central Utilities Plant Bldg#05 and compatible with the existing Campus EMS.

12. SITE LIGHTING:

Site lighting will be required and shall comply with FAU standards.

13. SURFACE IMPROVEMENTS:

Sod and Landscaping will be required.

B. UTILITIES INFRASTRUCTURE COST ESTIMATES

Cost estimate provided by Facilities Management – Engineering & Utilities

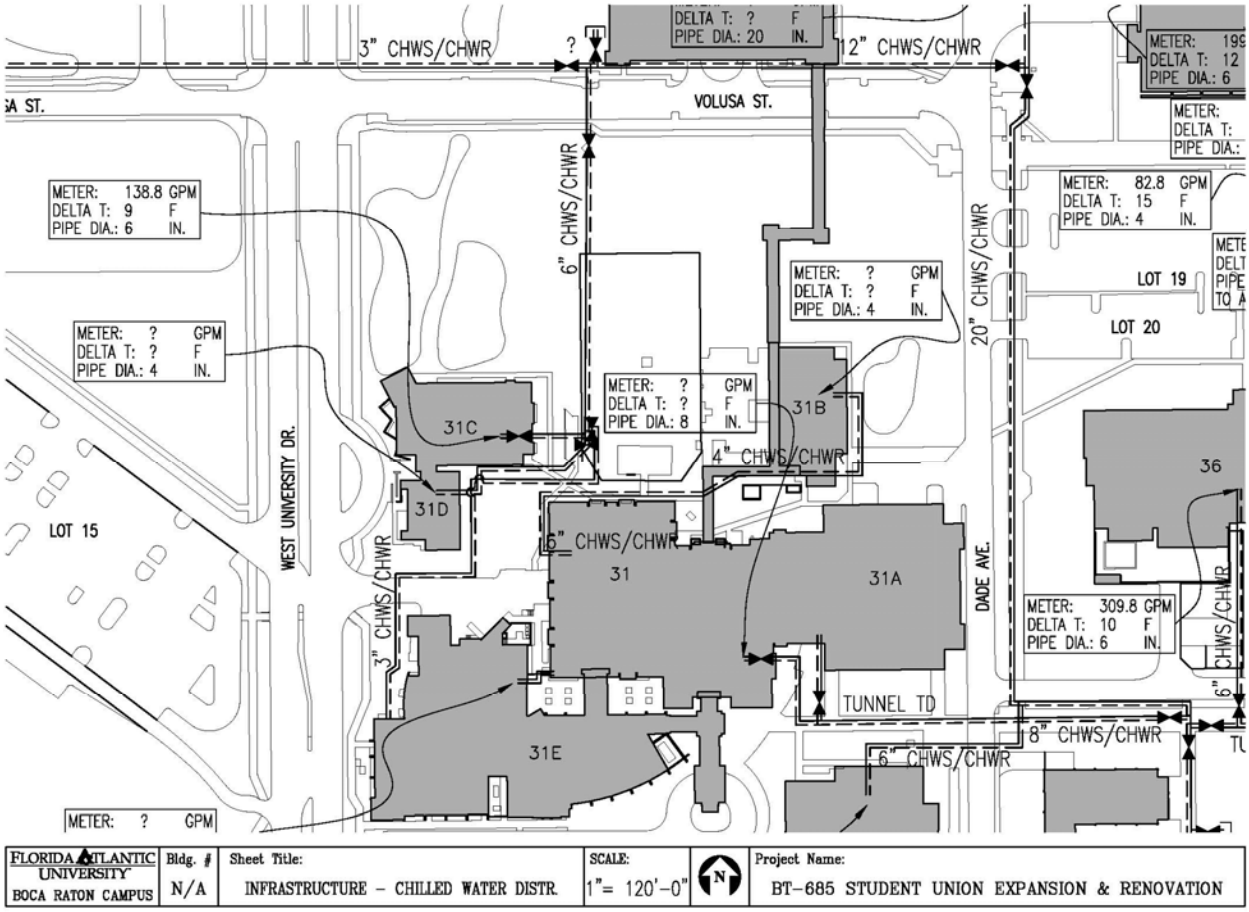
CHILLED WATER		
380LF TRENCH, 8" CWS&R	$ 40,000	
SCHWP#2	$ 60,000	
ROAD CROSSING	$ 20,000	
RECONNECT PIPES TO BLDG 11A	$ 20,000	
Sub Total		$ 140,000
ELECTRICAL		
8OOLF TRENCH, CONDUIT, CABLES, CONCRETE COVER	$160,000	
Sub Total		$ 160,000
POTABLE WATER		
100 LF TRENCH WORK	$ 5,000	
FIRE HYDRANT AND VAVLE BOX RELOCATE	$ 5,000	
Sub Total		$ 10,000
SANITARY		
100LF TRENCH WORK	$ 5,000	
CAMERA AND REPAIRS	$ 100,000	
Sub Total		$ 105,000
IRRIGATION		
500LF TRENCH WORK	$ 15,000	
SITE IRRIGARTION	$ 50,000	
Sub Total		$ 65,000
STORM WATER		
50LF TRENCH	$10,000	
Sub Total		$ 10,000
NATURAL GAS		
CALIBRATE METER, BLDG31	$ 5,000	
REROUTE GAS LINE FROM BLDG FOOTPRINT	$ 20,000	
Sub Total	Allowance	$ 25,000
TELECOMMUNICATIONS		
TBD		$ 0
		$ 0
Sub Total		$ 0

FIRE ALARM SYSTEM		
TBD		$ 0
		$ 0
Sub Total		$ 0
ENERGY MANAGEMENT CONTROL SYSTEM		
Remote monitoring at BLDG#05	$ 20,000	
Sub Total		$ 20,000
SITE LIGHTING		
Allowance for architectural lighting	$100,000	
Sub Total		$ 100,000
TOTAL		**$ 635,000**

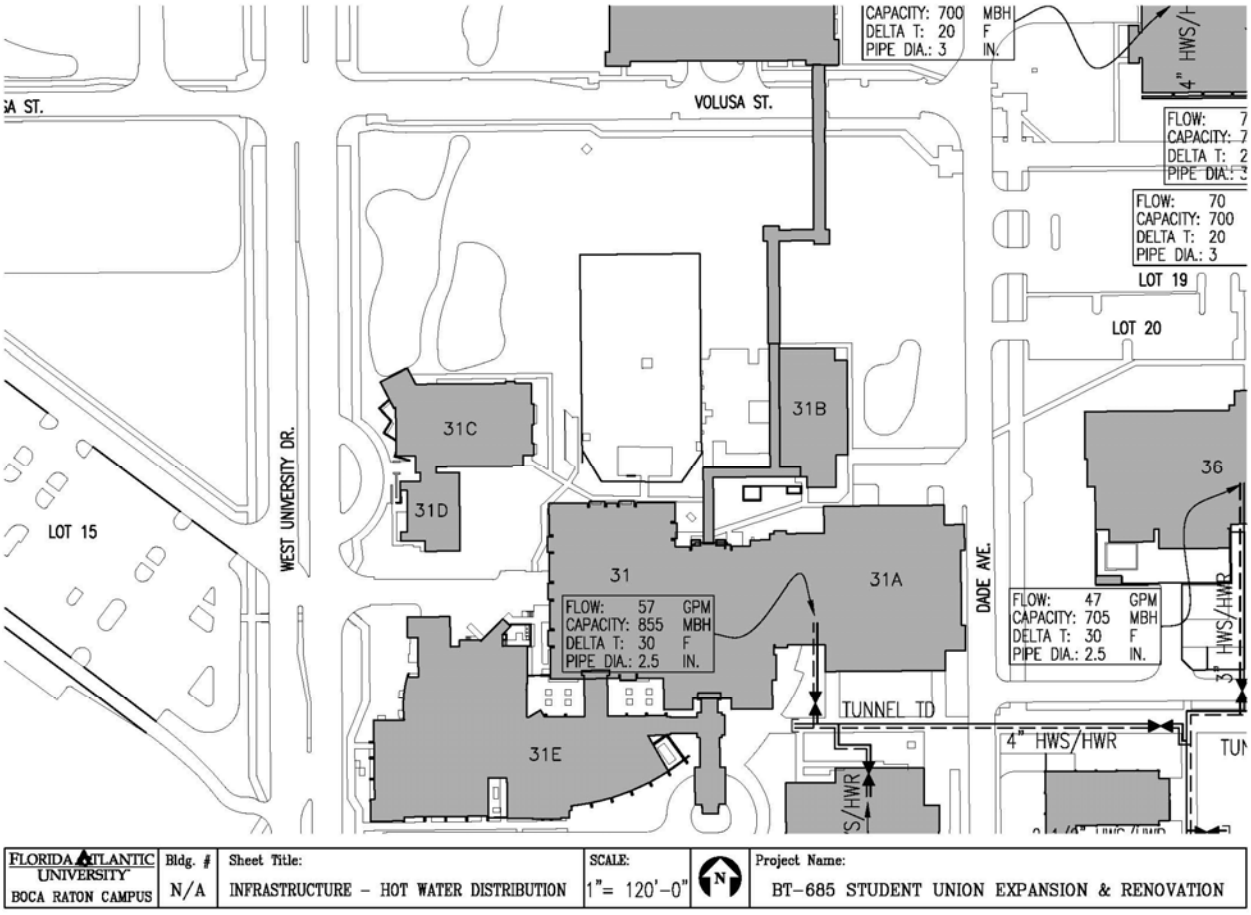
C. INFRASTRUCTURE MAPS

The following infrastructure planning drawings for the site are available from Facilities Management. All existing utilities and conditions shall be verified by the design team.

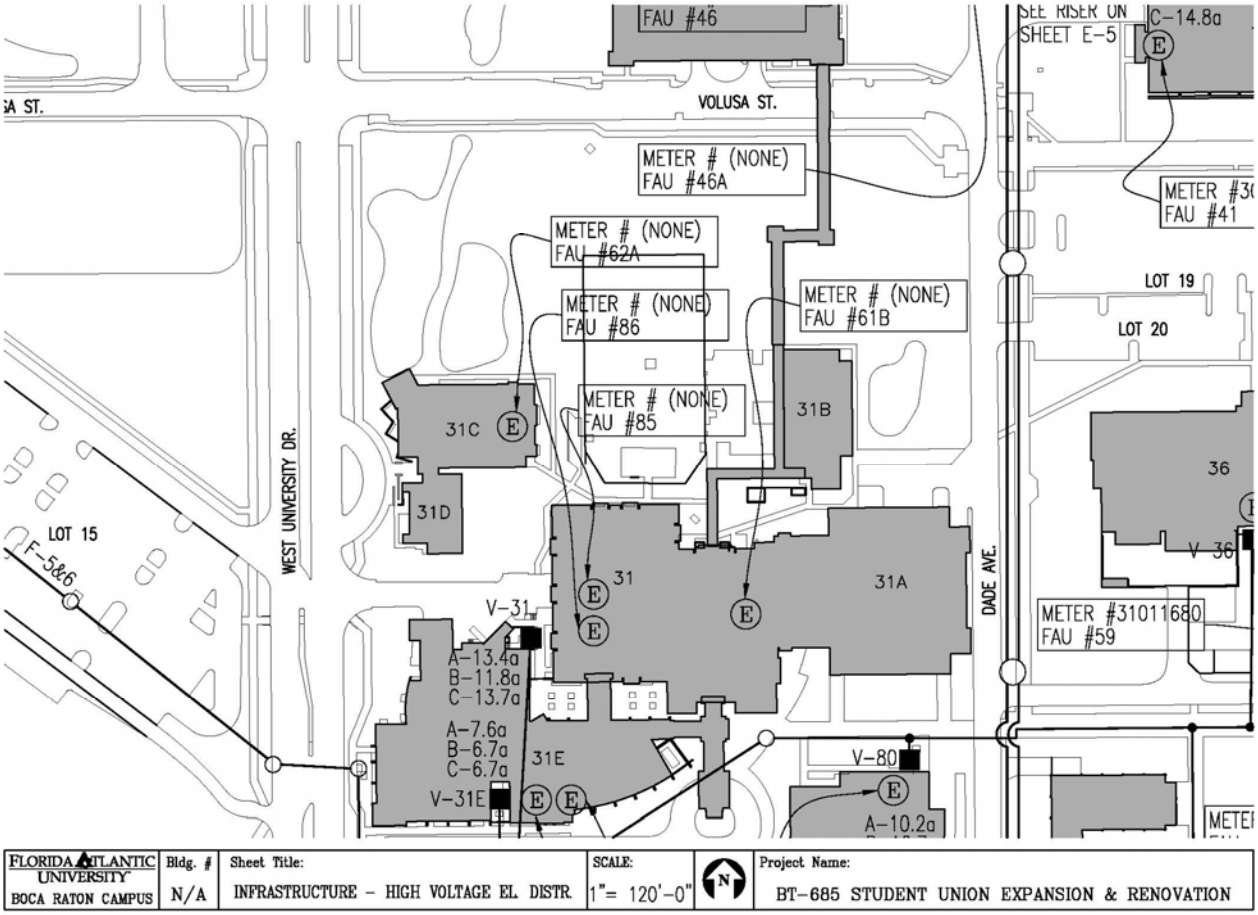
Chilled Water Distribution



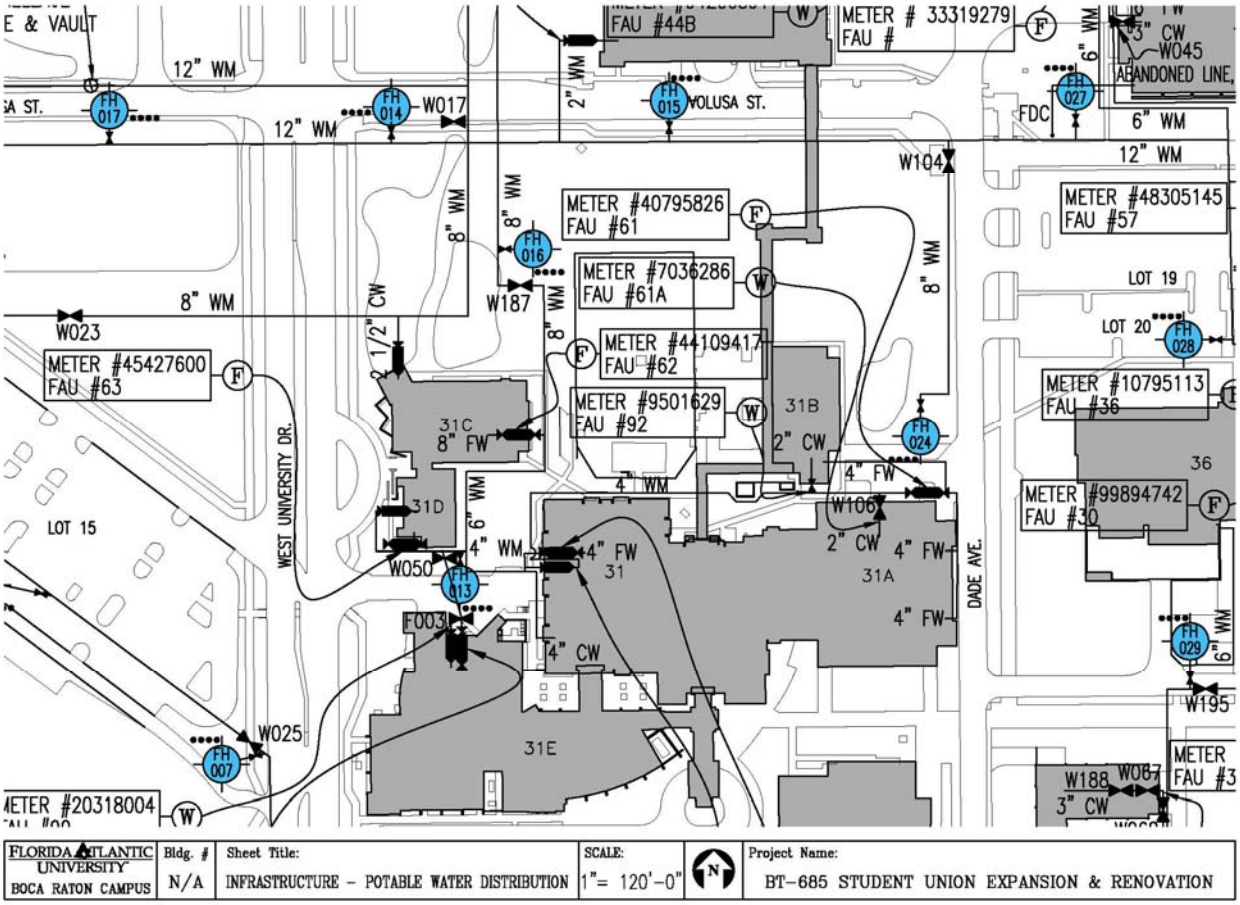
Hot Water Distribuion



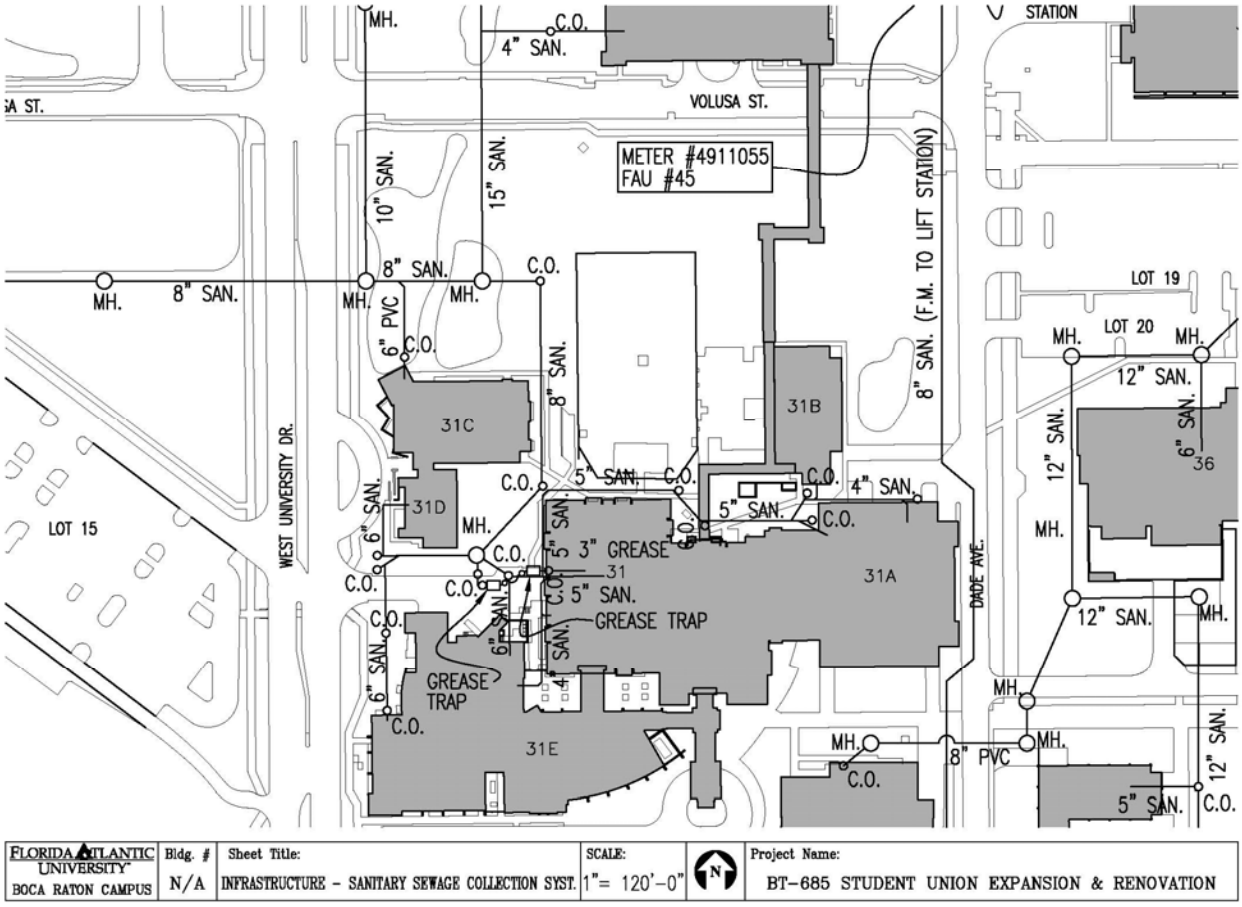
High Voltage Electrical Distribution



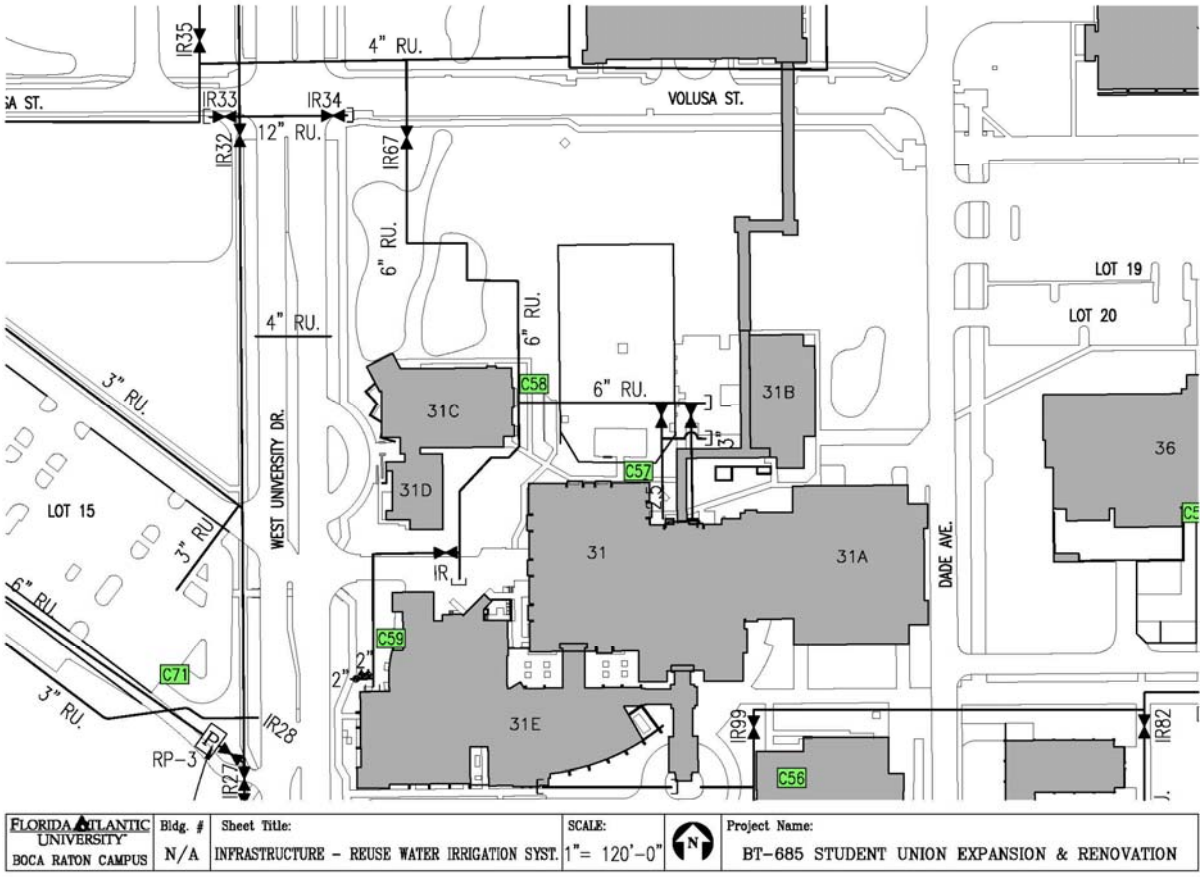
Potable Water Distribution



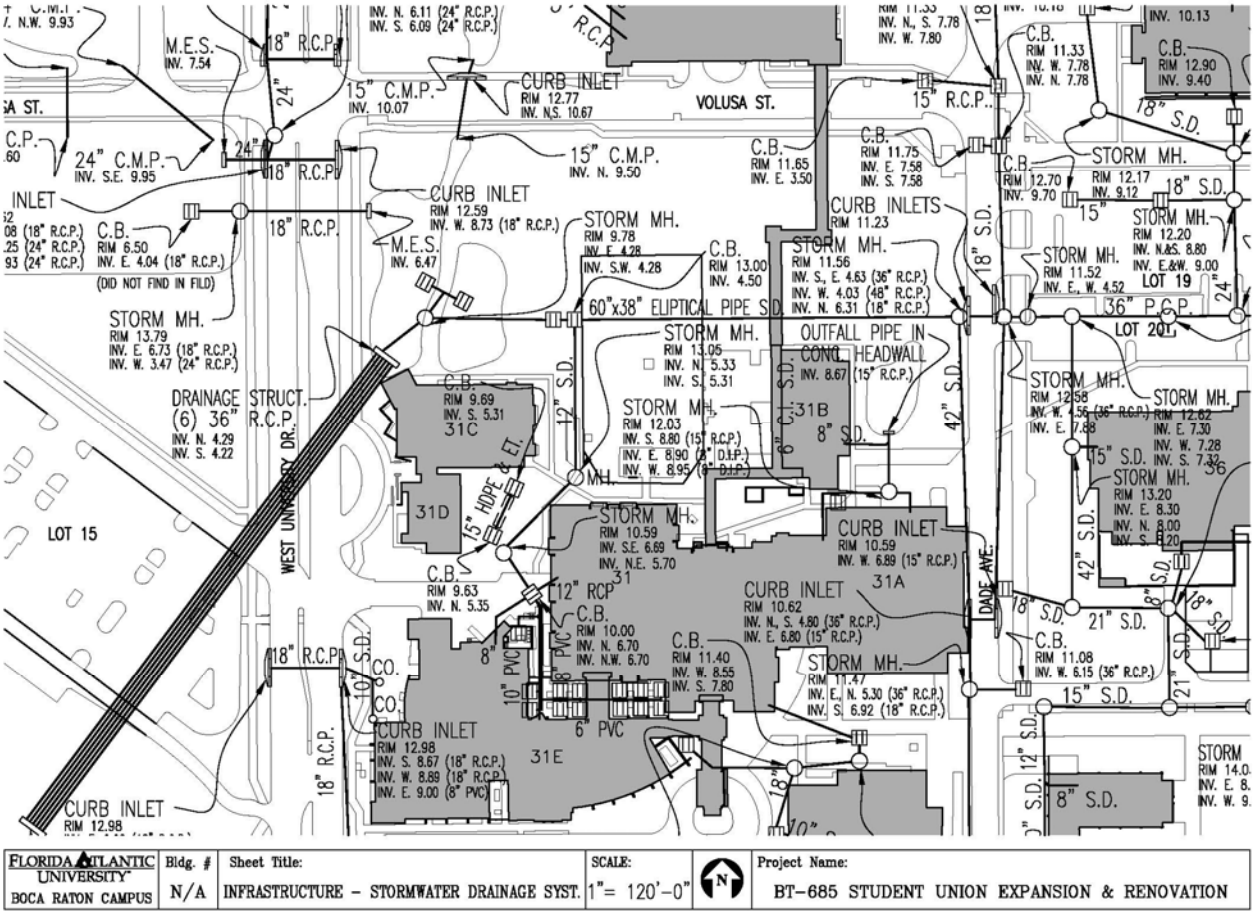
Sanitary Sewer Collection System



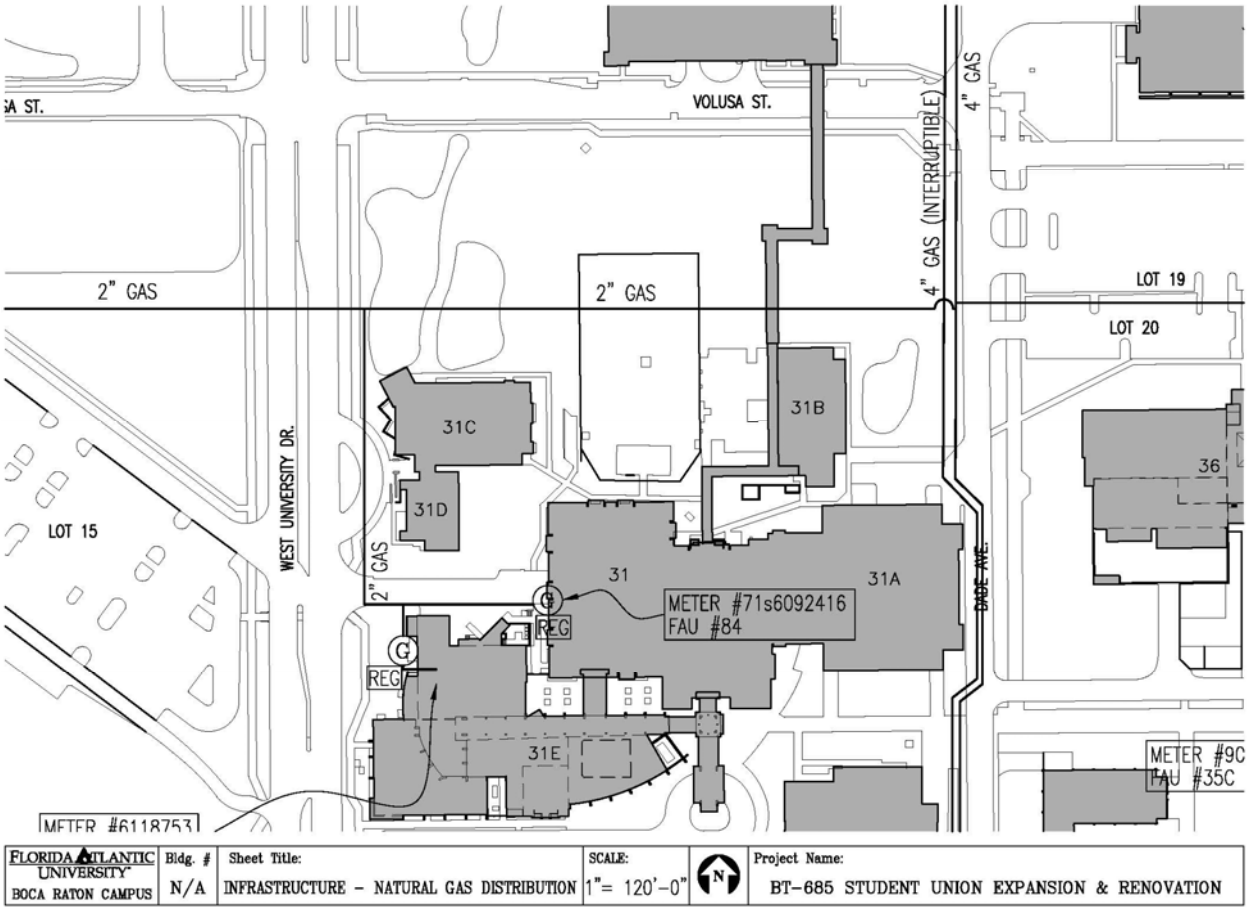
Re-use Water – Irrigation System



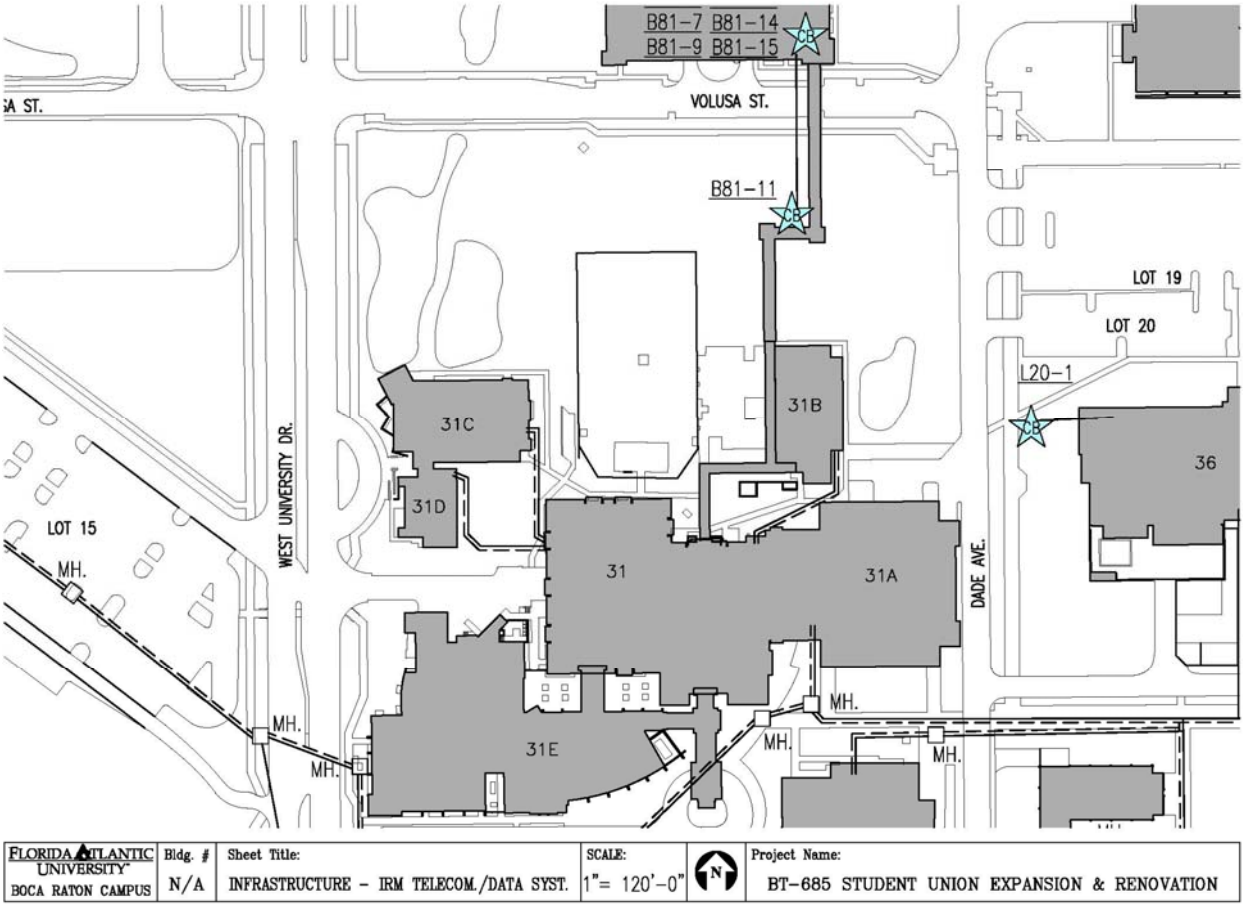
Storm Water Drainage System



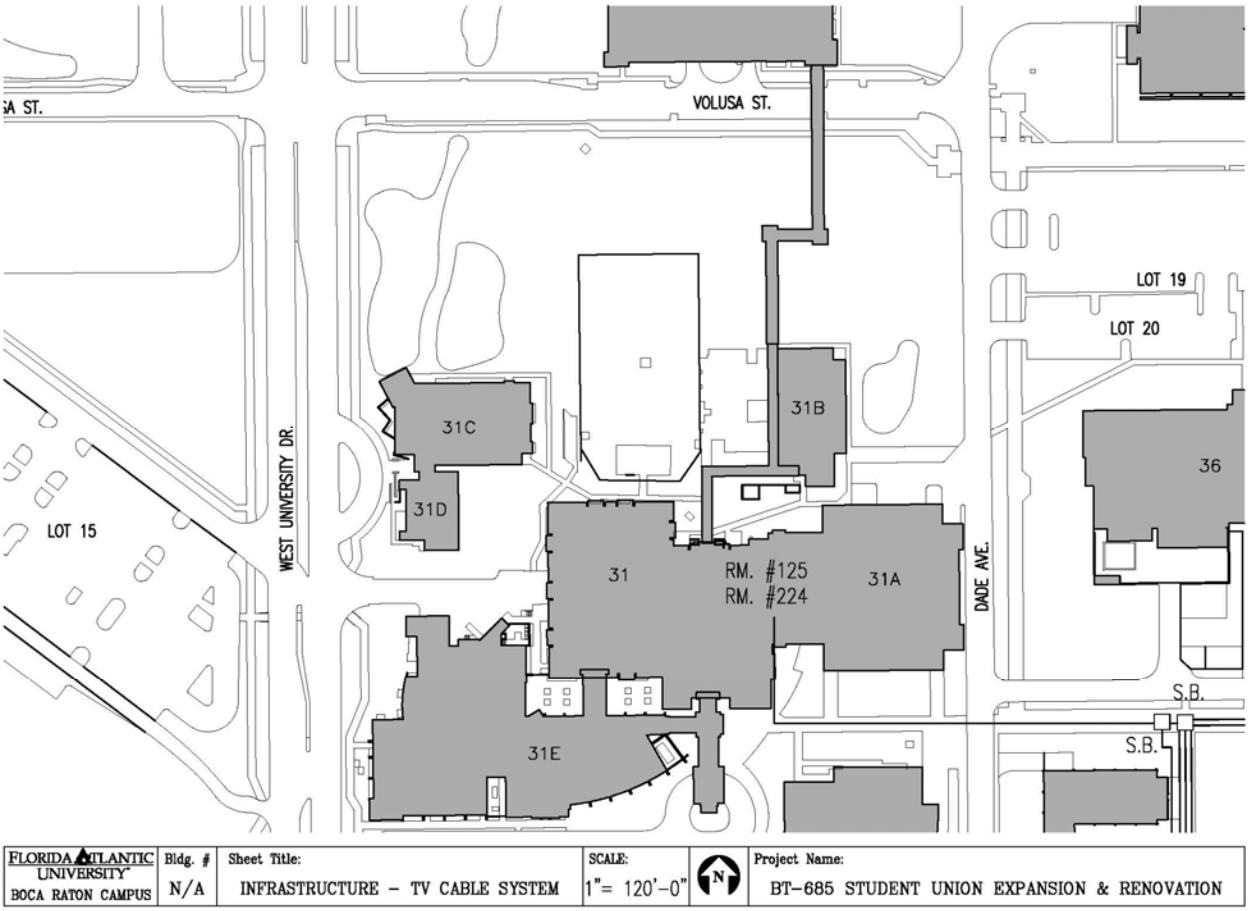
Natural Gas Distribution



Telecommunication / Data System



TV – Cable System



A. UNIVERSITY INFORMATION / COMMUNICATION STANDARD

All voice and data systems shall comply with Florida Atlantic University's most current specifications for Information Resources Management Communication Infrastructure Specification effective on the date of the Architect/Engineer contract execution. The complete specification is located on the web at:

http://www.fau.edu/shared/shared_ispec/CI_Spec_2016.pdf

The requirements of the University information/communications standards will be strictly enforced for the design and construction of the proposed facility.

B. UNIVERSITY INFORMATION RESOURCE MANAGER CERTIFICATION

By signature (on the signature page of this facilities program) the University Information Resource Manager certifies that a review of the University information/communication standards has been completed; and that the facilities program is developed in conformance with the Florida Atlantic University Information/Communication Standards in accordance with the Section 282, F.S.

A. A. CODES AND STANDARDS

The following editions of Codes and Standards (and associated review & permitting process), and University standards, where applicable, shall be followed for the design and construction of the proposed facility. Building codes which are approved at the time of building permit application shall be used for the project.

		DESCRIPTION
	Year	**Building Codes**
1.	2014 (5th Ed.)	Florida Building Code, Building
2.	2014 (5th Ed.)	Florida Building Code, Mechanical
3.	2014 (5th Ed.)	Florida Building Code, Fuel Gas
4.	2014 (5th Ed.)	Florida Building Code, Plumbing
5.	2014 (5th Ed.)	Florida building Code, Test Protocols for High Velocity Hurricane zones
		Section 4A-3.012 Standard of the National Fire Protection Association (Most commonly used Codes and Standards)
Standard	**Year**	**Title**
1	2014 (5th Ed.)	Fire Prevention Code
10	2010	Standard for Portable Fire Extinguishers
13	2010	Standard for the Installation of Sprinkler Systems
13R	2010	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including four stories in Height
14	2010	Standard for the Installation of Standpipe and Hose systems, except 2-7 Shall be omitted
20	2010	Standard for the Installation of Centrifugal Fire Pumps
24	2010	Standard for the Installation of Private Fire Service Mains and Their Appurtenances
25	2011	Standard for the Inspection, Testing & Maintenance of Water Based Fire Protection Systems
30	2012	Flammable and Combustible Liquids Code
45	2011	Standard on Fire Protection for Laboratories Using Chemicals
70	2011	National Electrical Code
72	2010	National Fire Alarm Code
90A	2002	Standard for the installation of Air Conditioning and Ventilating Systems
96	2011	Standard for Ventilation Control and Fire Prevention of Commercial Cooking Operations
101	2012	Life Safety Code
	3.13.3	**State Fire Marshal**
		Requirements for review shall comply with PSG, Exhibit 5; (all inspections, reviews and permitting for University projects shall be coordinated through the University BCA Office)
	3.13.4-5	**Required Permits**
		All Building permits are to be issued by the Building Code Official at FAU Facilities Planning, prior to the start of construction.
	3.13.5.2	Department of Business and Professional Regulation, Division of Hotel and restaurants, Bureau of Elevator Inspection for elevator inspections and permit, Department of Health
	3.13.5.4	Department of Environmental Protection (DEP), area Branch and NPDES Permits
	3.13.5.5	Local Water Management District permit
		Florida Atlantic University Standards
		Florida Atlantic University Cost Containment Guidelines
		FAU Professional Services Guide and Project Manual
		All special requirements as identified in the pre-design conference meeting(s) with the various University agencies (the A/E consultant(s) shall record in meeting minutes).
		Miscellaneous Statutes
		Ratio of facilities for men and women public restrooms of Section 553.14 of Florida Statutes

Note: All reference to codes shall mean the latest editions adopted through legislation for use in state owned/leased buildings as described in the Florida Statues sections 471, 481 and 553s

PROPOSED PROJECT SCHEDULE
CONSTRUCTION MANAGEMENT PROJECT DELIVERY METHOD

GOALS AND MILESTONES	DURATION	START DATE	END DATE	
PROGRAM APPROVAL	**9 weeks**	**31-Jul-2016**	**02-Oct-2016**	**0.2 Years**
Facilities Program Development	7 weeks	31-Jul-2016	18-Sep-2016	
Facilities Program Approval & Advertisement Approval	2 weeks	18-Sep-2016	02-Oct-2016	
A/E SELECTION PROCESS	**12 weeks**	**02-Oct-2016**	**25-Dec-2016**	**0.2 Years**
Advertise for A/E in FAW	4 weeks	02-Oct-2016	30-Oct-2016	
A/E Short-list	2 weeks	30-Oct-2016	13-Nov-2016	
A/E Interviews	4 weeks	13-Nov-2016	11-Dec-2016	
Contract Negotiations with A/E	2 weeks	11-Dec-2016	25-Dec-2016	
C/M SELECTION PROCESS	**10 weeks**	**30-Oct-2016**	**08-Jan-2017**	**0.2 Years**
Advertise for C/M in FAW	4 weeks	30-Oct-2016	27-Nov-2016	
C/M Short-list	2 weeks	27-Nov-2016	11-Dec-2016	
C/M Interviews	2 weeks	11-Dec-2016	25-Dec-2016	
Contract negotiations with C/M	2 weeks	25-Dec-2016	08-Jan-2017	
DESIGN PHASE	**37 weeks**	**25-Dec-2016**	**10-Sep-2017**	**0.7 Years**
Program Verification, Building Analysis & Conceptual Design	4 weeks	25-Dec-2016	22-Jan-2017	
University review and approval	1 weeks	22-Jan-2017	29-Jan-2017	
Schematic Design	4 weeks	29-Jan-2017	26-Feb-2017	
University review and approval	1 weeks	26-Feb-2017	05-Mar-2017	
Design Development and Budget verification	6 weeks	05-Mar-2017	16-Apr-2017	
University review and approval	2 weeks	16-Apr-2017	30-Apr-2017	
50% Construction Documents and Budget update	6 weeks	30-Apr-2017	11-Jun-2017	
University review and approval	2 weeks	11-Jun-2017	25-Jun-2017	
100% Construction Documents and Budget update	4 weeks	25-Jun-2017	23-Jul-2017	
University review and approval	2 weeks	23-Jul-2017	06-Aug-2017	
Submittal of GMP	3 weeks	06-Aug-2017	27-Aug-2017	
GMP Review & Negotiations	2 weeks	27-Aug-2017	10-Sep-2017	
Design Review submittal to State Fire Marshal (SFM)	6 weeks	23-Jul-2017	03-Sep-2017	
CONSTRUCTION PHASE	**57 weeks**	**03-Sep-2017**	**07-Oct-2018**	**1.1 Years**
Notice to Proceed	1 weeks	03-Sep-2017	10-Sep-2017	
Construction	48 weeks	10-Sep-2017	12-Aug-2018	
Substantial Completion	2 weeks	12-Aug-2018	26-Aug-2018	
Punch list Corrective Work & Final Completion	4 weeks	26-Aug-2018	23-Sep-2018	
Owner FF&E Move In	2 weeks	23-Sep-2018	07-Oct-2018	
Owner Occupancy		07-Oct-2018		
Total	**114 weeks**	**31-Jul-2016**	**07-Oct-2018**	**2.2 Years**

A. ESTIMATED FUNDING

CITF – FUNDING		
2013-14 CITF Funds	$2,468,375	
2014-15	$3,351,586	
2015-16	$2,711,483	
2016-17	$3,029,743	
2017-18*	$3,000,000	
Reallocated CITF Funding	$93,000	
SUBTOTAL CITF FUNDS		$14,654,187

**estimated amount for 2017-18 to be appropriated in July 2018*

OTHER FUNDING SOURCES (FY16-17 & FY17-18)

Activities & Services (A&S) Fees	$1,700,000	
Housing Fund Balance	$1,610,813	
Student Affairs Fund	$2,800,000	
Student Health Services (SHS) Fund Balances	$2,000,000	
SUBTOTAL OTHER FUNDS		$8,110,813
TOTAL PROJECT FUNDS		**$22,765,000**

B. ESTIMATED BUDGET SUMMARY

The following summary reflects the estimated project costs for the proposed of the project. See the detailed budget in section XV.

1	**Construction Costs**	Gross Sq. Ft.	$$ / GSF		
a.	Construction Costs				
	New Construction	35,434	316.25		$11,206,000.00
	Renovation	13,500	253.00		$3,415,500.00
b.	Additional/Extraordinary Construction Costs				$2,780,000.00
	Sub Total Construction Costs				**$17,401,500.00**
2	**Other Project Costs**				
a.	Land/existing facility acquisition				$0.00
b.	Professional Fees				$1,508,900.00
c.	Fire Marshal Fees				$43,500.00
d.	Inspection Services				$12,400.00
e.	Insurance Consultant				$11,100.00
f.	Surveys and Tests				$7,000.00
g.	Permit/Impact/Environmental Fees				$500.00
h.	Art Work				$0.00
i.	Movable Furnishings & Equipment				$2,740,200.00
j.	Project Contingencies				$1,039,900.00
	Sub Total Other Project Costs				**$5,363,500.00**
	TOTAL PROJECT BUDGET				**$22,765,000.00**

PROJECT SPACE AND BUDGET SUMMARY

SPACE SUMMATION (from **Section IX** of Facilities Program)

Program Space Type (New Construction)	**NASF**	**Factor**	**GSF**	**$ / GSF**	**$**
Auditorium/Exhibit	25,310	1.4	35,434	316.25	$11,206,002.50

Program Space Type (Renovation)	**NASF**	**Factor**	**Existing GSF**	**$ / GSF ***	**$**
Auditorium/Exhibit			13,500	253.00	$3,415,500.00
* Renovation $/GSF as % of new construction cost	**80 %**				

1 CONSTRUCTION COSTS (Reference: SUS CM-D-38.00-09/97, Attachment 1-B) Modify, add, or delete as required.

a. **Building Construction Cost**		**Units**		**Unit Cost**	**$**
New Construction Cost	35,434	GSF		$316.25	$11,206,000.00
Renovation Cost	13,500	GSF		$253.00	$3,415,500.00
Sub-Total Construction Costs					**$14,621,500.00**
b. **Additional/Extraordinary Construction Cost**		**Units**		**Unit Cost**	**$**
Replace Existing Roof	1	Allowance		$1,300,000.00	$1,300,000.00
Asbestos/Lead Abatement (Demo & Renovation)	1	Allowance		$20,000.00	$20,000.00
Roadway Improvements	1	Allowance		$100,000.00	$100,000.00
Landscaping and Irrigation	1	Allowance		$75,000.00	$75,000.00
Plazas/Walks/Bike paths	1	Allowance		$150,000.00	$150,000.00
Utilities Infrastructure Cost					
Electrical Services	1	Allowance		$160,000.00	$160,000.00
Water Distribution System	1	Allowance		$10,000.00	$10,000.00
Sanitary Sewer System	1	Allowance		$105,000.00	$105,000.00
Storm Water System	1	Allowance		$75,000.00	$75,000.00
Chilled Water System	1	Allowance		$140,000.00	$140,000.00
Natural Gas	1	Allowance		$25,000.00	$25,000.00
Sight Lighting	1	Allowance		$100,000.00	$100,000.00
Energy Efficient Equipment	1	Allowance		$20,000.00	$20,000.00
Sub-Total Add/Extra Construction Costs				Round to 100	**$2,280,000.00**
Telecommunications / External Infrastructure	1	Allowance		$100,000.00	$100,000.00
Telecommunications / Internal Wiring	1	Allowance		$400,000.00	$400,000.00
Sub-Total Telecommunication Cost				Round to 100	**$500,000.00**
TOTAL CONSTRUCTION COSTS				Round to 100	**$17,401,500.00**

2	**OTHER PROJECT COSTS**					
a.	**Land/Existing Facility Acquisition**		Purchase or Budget		Round to 100	**$0.00**
b.	**Professional Fees**					
	A/E Fees (Curve **A**: + Above Average)	6.48	%		$1,126,878.86	$1,126,900.00
	Civil & Engineering Fee (10% of A/E Fee)				$112,687.89	$112,700.00
	Landscape Design Fee (5% of A/E fee)				$56,343.94	$56,300.00
	Design Specialty Consultants (Acoustics)	1	Allowance	13 Wks	$1,500.00	$19,500.00
	Design Specialty Consultants (Lighting)	1	Allowance	13 Wks	$1,500.00	$19,500.00
	C/M Pre-Construction Services Fee	1.00	%		$174,015.00	$174,000.00
	Sub-Total Professional Fees				Round to 100	**$1,508,900.00**
c.	**State Fire Marshal Review and Inspection**	0.25	%		Round to 100	**$43,500.00**
d.	**Inspection Services**					
	Threshold Inspection	1	Allowance	14.2%	0.5%	$12,400.00
	Code Compliance Inspection (weekly)	0	Allowance			$0.00
	Plan Review (Code Compliance Inspection)	0	Allowance			$0.00
	Sub-Total Inspection Services				Round to 100	**$12,400.00**
e.	**Risk Management / Insurance Consultant**	0.06	%		Round to 100	**$11,100.00**
f.	**Surveys & Tests**					
	Topographical/Site Survey	1	Allowance		$7,000.00	$7,000.00
	Sub-Total Surveys & Tests				Round to 100	**$7,000.00**
g.	**Permit/Impact/Environmental Fees**					
	Environmental (SFWM)	1	Allowance		$500.00	$500.00
	Sub-Total Permits/Impact Fees				Round to 100	**$500.00**
h.	**Art in State Building** (Section 255.043, F.S.)	0	%		Round to 100	**$0.00**
I.	**Movable Furniture & Equipment**					
	Furniture	5	%			$870,100.00
	Equipment	5	%			$870,100.00
	IRM Equipment (Voice, Data, Video)*	1	Allowance		$1,000,000.00	$1,000,000.00
	Sub-Total Furniture & Equipment				Round to 100	**$2,740,200.00**
j.	**Project Contingency**	5.5	%		Round to 100	**$1,039,900.00**
	TOTAL OTHER PROJECT COSTS				Round to 100	**$5,363,500.00**
	TOTAL PROJECT BUDGET COST ESTIMATE					**$22,765,000.00**

*an additional $300,000 may be required for AV equipment - depending on the number of partitioned rooms. These funds may be redirected from 10% FF&E allowance included in the project.