

600 BED RESIDENCE HALL
BT-646

NOVEMBER 2011
SIGNED 1/23/2012





**600 BED RESIDENCE HALL
BT-646**

FOR

Boca Raton Campus

FLORIDA ATLANTIC UNIVERSITY
BOCA RATON, FLORIDA

PREPARED
NOVEMBER 2011
SIGNED 1/23/2012

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Florida Atlantic University
FACILITIES PROGRAM

REVIEWED AND APPROVED:

FACILITIES PLANNING:

This is to certify that this document meets the intent of the University Architect's UAVP Policy and Procedure #9 (Development of Facility Program) and existing code requirements.


Robert Richman, Director of Facilities Planning

INFORMATION RESOURCE MANAGEMENT:

This is to certify that this document meets the requirements of Information Resource Management.


Jason Ball, Associate VP for IRM & CIO, IRM Assoc. Provost

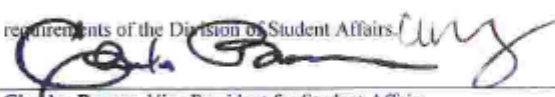
PROGRAM COMMITTEE / HOUSING:

This is to certify that this document contains the recommendations of the Office of Housing and Residential Life.


Jill Eckardt, Director University Housing

DIVISION OF STUDENT AFFAIRS:

This is to certify that this document meets the requirements of the Division of Student Affairs.


Charles Brown, 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.


Brenda Claiborne, University Provost & Chief Academic Officer


DIVISION OF FINANCIAL AFFAIRS:

This is to certify that this document meets the requirements of the Division of Financial Affairs.


Dennis Crudele, Sr. VP for Finance, & CFO, Financial Affairs


DIVISION OF FACILITIES:

This is to certify that this document has been reviewed for project schedule and budget, and is consistent with the latest approved Campus Master Plan.


Thomas Rausdy, University Architect & Vice President, Facilities

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.


Mary Jane Saunders, President Date 1/23/12

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 FAU Department of Housing and Residential Life program strives to complement and support the overall mission of Florida's fastest growing public institution of higher education. The on-campus housing program serves as a living-learning environment, in support of the university's educational purpose, mission, and goals.

The scope of this project includes the accommodation of approximately six hundred (600) beds with a variety of suites, including two double bedroom suites, and four single bedroom suites, each with two full bathrooms. Each bed will require one data/voice/cable port for each resident. Windows shall be fixed.

This project calls for up to 14 Resident Assistant Suites, depending on the geometry of the design, and two full-time Faculty in Residence (FIR) Apartments. In addition, a dining facility will be part of this program, the size and make-up of such will be further defined in the design phase. See section IX for more program detail and a list of required auxiliary space.

Provide new parking for 60% of the students or 360 cars. Replace any existing parking that is taken by the construction of the facility.

For this facility, a card-access system is required, with access provided at each entrance to the main building, as well as at entrances to the towers. Secondary entrances/exits, such as stair towers, should be wired for card access and alarms/horns, in order to prevent the doors from being propped open.

Overall, it is the University's and the Department of Housing and Residential Life's intention to provide an atmosphere that is conducive and supportive to a living and learning environment for our residents. This new residential facility should support and advance that mission.

B. DESIGN OBJECTIVES

The overall design objective for this project is to develop a facility and campus, which provides an environment for the students and faculty to learn, interact, and conduct programs to enhance their experience on the FAU Boca Raton Campus. The selected firm will provide site master planning, schematic design, design development, construction documents and construction administration for the referenced project.

1. LANDSCAPING AND EXTERIOR LIGHTING

Landscaping and exterior lighting shall be incorporated into the design for function, aesthetics, security and safety. Lighting and security shall be furnished to connect the proposed building with the public and parking areas of the site.

2. WALKWAYS AND PEDESTRIAN TRAFIC

The project shall include walkways and plazas, adequate for connecting this facility to other facilities and parking areas in a way that is consistent with the master plan..

3. VEHICULAR TRAFFIC

Separation of vehicular and pedestrian traffic is of utmost importance. The safety of pedestrian circulation should be a first priority. Second priority is the development of parking areas with access from the perimeter and access for service vehicles, necessary to maintain the building and the grounds.

4. CONTEXTUAL SITE AND BUILDING DESIGN

Site and Building design shall emphasize the design of the total campus entity rather than the individual buildings. 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.

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.

A. STATE UNIVERSITY SYSTEM OF FLORIDA MASTER PLAN

The project will not have classroom space.

B. ACADEMIC PROGRAM REVIEWS

Not Applicable

C. RECOMMENDATIONS OF THE REVIEW CONSULTANTS

Not Applicable

C. JUSTIFICATIONS

Not Applicable

A. FACILITY DEFICIENCIES

The Boca Raton campus requires additional freshmen bed capacity, as demonstrated by the fact that hundreds of freshman had to be placed in the new upper class Innovation Village Housing on the North side of campus, away from the remaining freshman and food service venues. Others had to be placed in local hotels.

The existing Campus Market Place, the dining facility for most freshman and others in the meal program, is working beyond the capacity for which it is designed. An additional dining facility will be needed to support this residence hall and other future residence halls.

B. ALTERNATIVE SOLUTIONS

Not Applicable

C. QUANTITATIVE ANALYSIS OF PROGRAM SPACES

Not Applicable

D. PROJECT AND SURVEY RECOMMENDATIONS

Not Applicable

THE ADOPTED CAMPUS MASTER PLAN

The proposed project is consistent with the Master Plan for the Boca Raton Campus for Florida Atlantic University adopted September 15, 1995, amended August 29, 1997, February 26, 2001 and most recently November 18, 2009. The development of additional housing is included in the current Master Plan. However, the plan will be updated to reflect the actual location of these residential units.

A. SITE CONDITIONS

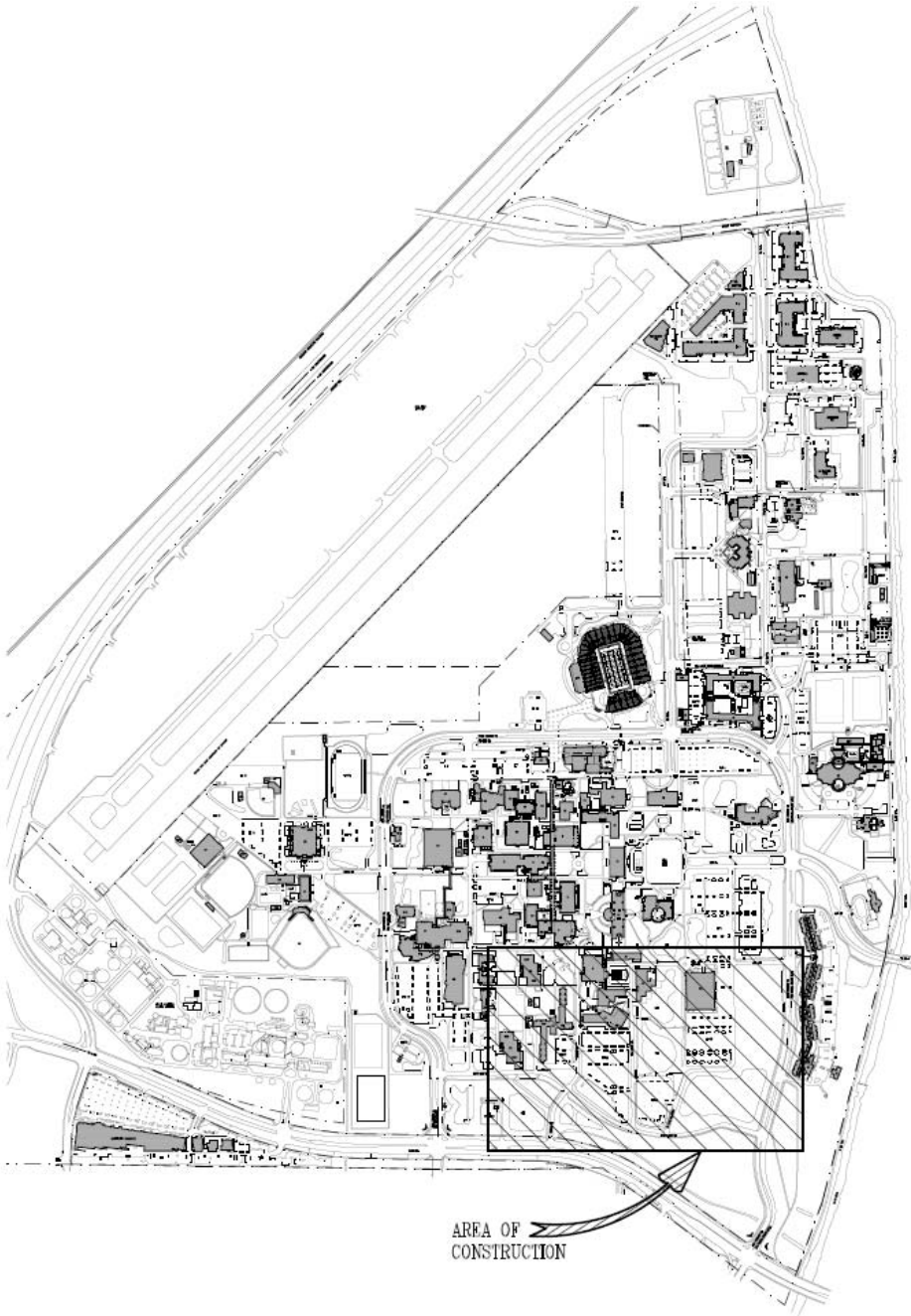
The proposed site for this facility is near the other freshman housing community at the southern end of campus, north of Indian River Street, within the main campus traffic loop.

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)
New sidewalk systems are to be implemented to enhance pedestrian flow between the halls and the surrounding academic and support facilities.
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.

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B. CAMPUS MAP & SITE MAPS

The following map of the existing Boca Raton Campus shows the proposed general location for this residence hall. Within this area there are two or three possible sites for the structure. The actual site will be selected during the master planning phase of the design. See the existing infrastructure drawings in Section X.



FLORIDA ATLANTIC UNIVERSITY BOCA RATON CAMPUS	Blg. # -	Sheet Title: PROPOSED SITE OF CONSTRUCTION	SCALE: NOT TO SCALE	Project Name: BT-646 600 BED RESIDENCE HALL
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A. PROGRAM AREA TABLES

The following program represents current thought at time of writing. This program is a representation of the types of units sought for this residence hall. The actual type, size and configurations will be determined in the master plan phase of the design.

STUDENT LIVING UNITS

For the purposes of this program phase, the facility will consist of the following configuration of student suites:

Resident Unit Type	Total Net SF	Quantity	Total NASF	Beds/Unit	Total Beds
Double/Double with 2 Full Baths	625	50	31,250	4	200
4 Single Bedrooms with 2 Full Baths	800	100	80,000	4	400
Resident Assistant Rooms w/ Living Area and Full Bath	350	14	4,900	1	14
Total			116,150		614

Requirements for Student Suites:

- Each bedroom shall have Voice/ data / and cable TV connection per bed.
- All rooms to have ceiling mounted light fixtures.
- Horizontal window treatments are to be provided for all windows.
- All restrooms are to have showers with ceramic tile finish.
- Provide VCT throughout the suite. Bathrooms are to have ceramic tile floors.
- Each suite to have an additional sink in the commons space.
- All public corridors leading to the suites are to be carpeted.
- The addition of small private safes (like hotels) for each student will be considered.
- Provide new parking for 60% of the students or 360 cars. Replace any existing parking that is taken by the construction of the facility.

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AUXILIARY SPACE

Space Type	Net Sq. Ft.	Quantity	Total NASF	Description / Comment
Lobby	1,600	1	1,600	2 story space w/ one of the FIRs apts off 2nd floor
Front Desk/Security Post	360	1	360	Adjacent to 1st Floor Lobby
Secretary Office	120	1	120	Adjacent to Reception / Administration
Resident Coordinator Office	130	4	520	
Resident Coordinator workspace	120	1	120	Adjacent to RC office
Community Council Office	130	1	130	
Community Council Workspace	120	1	120	Adjacent to CC office
Resident Assistant Work Room	140	1	140	
Conference Room	300	1	300	For 15 people
Mailroom + Package Area	400	1	400	Off Lobby; Like IVA 600 mail boxes; room to store packages
Multipurpose	1,300	1	1,300	Centrally located on first floor
Kitchenette	220	1	220	adjacent to Multipurpose Room
Activity Room	1,300	1	1,300	For Pool table, Ping pong etc
Fitness Room	1,300	1	1,300	(Like IVA)
Storage	120	2	240	Serving Multipurpose and activity rooms
Vending Room	160	1	160	Could be in the Activity Room
Office/Study Rooms	120	3	360	
Computer lab	450	1	450	Central - off Lobby
Classroom	600	2	1,200	
Public Restrooms	250	2	500	not individual, make for 2 or three each
Laundry	450	2	900	one for each tower, if two tower design; or 1 large
Floor Study/Lounge	200	7	1,400	Centrally located on each floor
Maintenance/Storage	800	1	800	Adjacent to service corridor / service yard
Hall Coordinator Apartment	750	1	750	Two bedroom Apt with 2 ba; Liv Rm; Dining; Kitchen
Resident Coordinator Apartment	2,000	1	2,000	3BR/2BA/xtra lge 900 sf Liv Rm/Dining Rm/Kitchen w/ exterior private entrance
Faculty in Residence (FIR) Apartment	2,000	1	2,000	3BR/2BA/xtra lge 900 sf Liv Rm/Dining Rm/Kitchen - off 2nd Fl Lobby, possibly with private exterior entrance
Total Net Area			18,690	

CAFETERIA / FOOD SERVICE VENUE

The program will also include approximately 9,000 Net SF for a food service venue with full kitchen. This requires a seating capacity similar to our existing Market place venue, which is 494, and capable of servicing at least the 600+ people in this Residence Hall plus taking some of the pressure off of the FAU Market Place.

SUMMARY OF AREA REQUIREMENTS

The table below is a summary of net square foot areas and the application of gross area factors.

Space Program Summary	Net SF Area	Factor	Gross SF Area
Resident Units	116,150	1.30	150,995
Auxiliary Space	18,690	1.45	27,101
Cafeteria / Food Service Venue	9,000	1.30	11,700
Total Facility SF Area	143,840	1.31949	189,796

The following support spaces are to be included within the gross square footage:

<ul style="list-style-type: none"> ▪ <i>Trash Room</i> 	<p>Centrally located on each level</p> <p>On the first floor, trash room is to open to the outside service yard</p>	<p>Fluorescent overhead light.</p> <p>Trash chute connection to first floor.</p> <p>Provide room for recycle bins for paper, glass and plastic.</p>
<ul style="list-style-type: none"> ▪ Janitors Closet 	<p>Centrally located on each floor, large enough to accommodate a slop sink, and janitorial equipment</p>	<p>Provide overhead fluorescent light and adequate plumbing for slop sink.</p>
<ul style="list-style-type: none"> ▪ IRM / Telephone Room 	<p>Every 3 Floors – 140 sq. ft. Room.</p> <p>All other levels to have a minimum 80 sq. ft. closet.</p>	<p>Fluorescent overhead light</p> <p>(2) 4' X 8' painted plywood backboards</p>
<ul style="list-style-type: none"> ▪ Storage Room 	<p>Approximately 80 Sq. Ft. – one located on every other floor</p>	<p>Fluorescent overhead light</p>
<ul style="list-style-type: none"> ▪ Electrical / Cable TV 	<p>One closet located on each floor</p>	

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://wise.fau.edu/facilities/uavp/>.

- 1) The building shall be designed to a minimum LEED level of silver.
- 2) As the site is relatively flat, the building site shall be designed to assure positive drainage away from the building.
- 3) Telephone and data services shall be provided in accordance with the standards specified in Section XI of this program.
- 4) Provide meters, according to FAU standards and guidelines, for all utilities serving the building.
- 5) 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.
- 6) Provide an emergency generator (with lockable screened wall) for a minimum of all life safety functions. Additional capacity to be provided as directed by the University.
- 7) Provide lightning protection per University standards.
- 8) Energy efficient systems and lighting shall be used to the greatest extent possible, in accordance with University standards.
- 9) Provide conduit for voice and data connectivity to the existing campus backbone.
- 10) Provide for connectivity to the existing campus energy management system and life safety systems.
- 11) The building shall have 100% sprinkler protection.
- 12) Provide surge protection for the entire building.
- 13) Provide for screened trash storage area for recycling, etc.
- 14) Provide for the covered outdoor storage and charging of up to 4 golf carts.
- 15) 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 (NUMERICAL INFORMATION GIVEN HERE IS APPROXIMATE AND MUST BE CONFIRMED BY DESIGN PROFESSIONAL. JOINT USE TRENCHING IS ENCOURAGED)

-
- 1. CHILLED WATER: (SUS CM-N-04.00-09/97 A)**
Provide a separate stand-alone air-cooled chiller plant adjacent to building. Plant shall include all controls, accessories, and auxiliary equipment needed for operation. The total preliminary estimated load is for two 250-ton chillers with three pumps (one for backup). Chilled water will be supplied at a 12-degree delta T.

 - 2. HEATING: (SUS CM-N-04.00-09/97 B)**
Heating shall be accomplished using high efficiency hot-water, gas fired boiler(s) which will provide pumped hot water to air handling unit coils throughout the building.

 - 3. ELECTRICAL: (SUS CM-N-04.00-09/97 C)**
The estimated load for this building is 1500kva. A new pad mounted transformer will be needed and shall be connected to a new switch cabinet that is fed before FAU pad zero at the FPL Atlantic substation containing a preferred and alternate feeder.

 - 4. POTABLE WATER: (SUS CM-N-04.00-09/97 D)**
The gallons per day load is 12,000 gallons, or 20 gallons per person. The minimum water service size is 4" diameter water pipe for the 1,225 fixture units. This building has 175 Bathroom sets at 6 Fixture Units, plus 175 sinks for a total 1,225 Fixture Units. Booster pumps and gas-fired boilers will distribute hot water. The Fire Protection system will need water supply to a fire pump for the building and a separate backflow preventor. The existing water supply pipe is on or near the site. The location of new fire hydrants, and access to them must comply with the City Fire Department. The water supply loop on campus has three tie-in points to the City Water supply source. There is no capacity limit from the City Water source. There is an FAU dig permit required before digging.

 - 5. SANITARY: (SUS CM-N-04.00-09/97 D)**
The load is estimated at 12,000 gallons per day, or 1,225 fixture units. The new Sanitary will drain into an existing line near the site or may need to be located going to the east under East University Blvd and tie into existing lift station south of student apartments. Lift station size will need to be verified to determine if any lift station changes will be required. There is an FAU dig permit required before digging.

 - 6. IRRIGATION: (SUS CM-N-04.00-09/97 E)**
The supply source for irrigation is an existing Reuse water loop around campus. The area has existing irrigation, which is only 2 inches below grade. The existing irrigation will be replaced with a totally new system in the area of construction. There is an FAU dig permit required before digging.

 - 7. STORM WATER MANAGEMENT:**
The South Florida Water Management District issues permits for each project on Campus. The Campus does have a blanket agreement with SFWMD including retention areas. The Lake Worth Drainage District requests the opportunity to review projects on Campus. The existing storm drainage from Bldg # 16 and #19 flows into the grass area east of the site. Since this area is being developed, the drainage should be piped out. The existing storm drain pipes are 200 feet west of the site. The existing retention area may need expansion. There is an FAU dig permit required before digging.

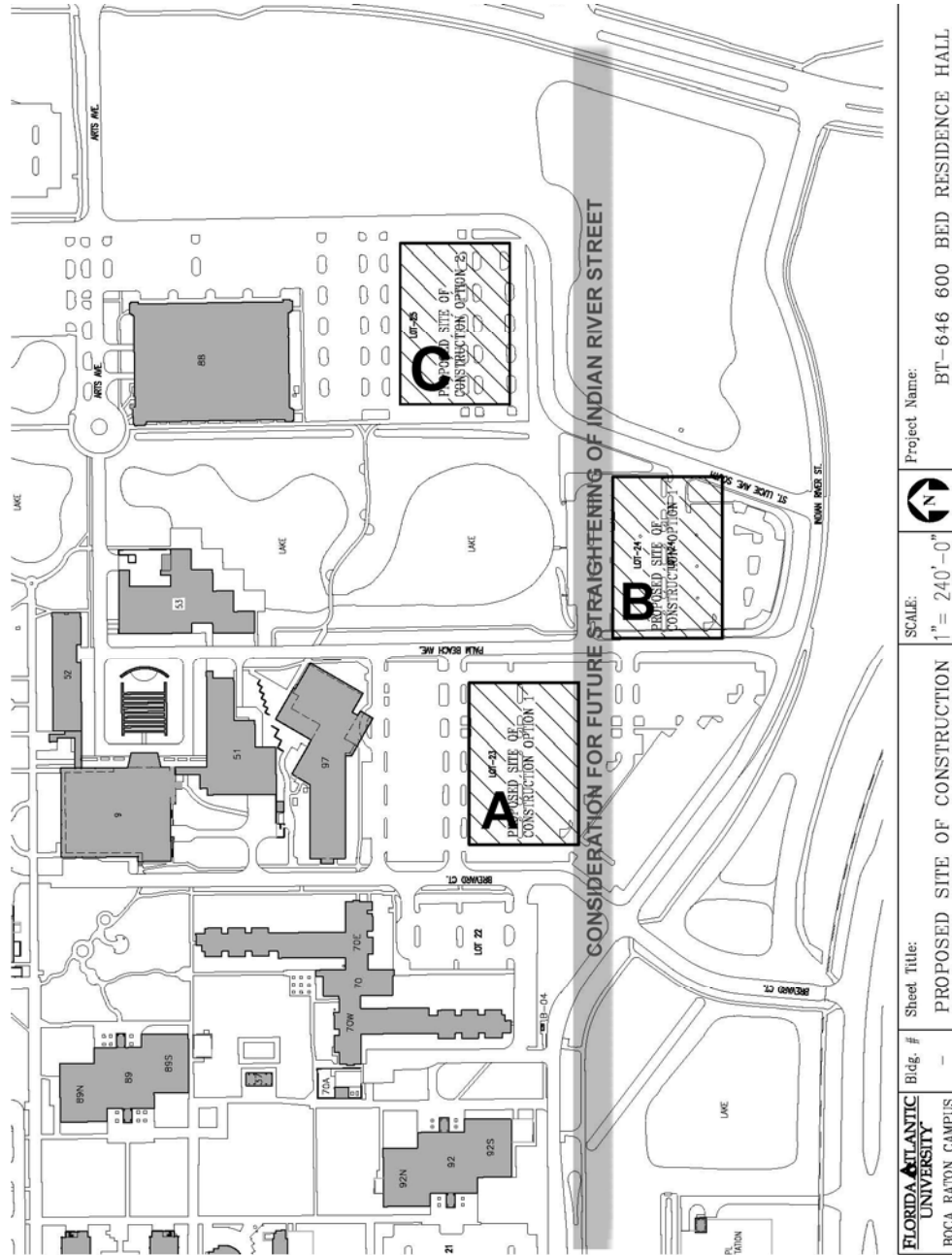
 - 8. NATURAL GAS:**
It is normal for the gas company to provide installation of an appropriately sized gas line and meter to the building and then for the contractor to provide low pressure piping on the building side of the meter to any equipment utilizing gas.

 - 9. TELECOMMUNICATIONS:**
The backbone cabling will be provided by the IRM Consultant. Note that blue phones may need relocating.

 - 10. FIRE ALARM SYSTEM:**
A fire alarm system will be installed with audio visual devices, pull stations, elevator recall and sprinkler flow alarms connected to police station via automatic dialer.
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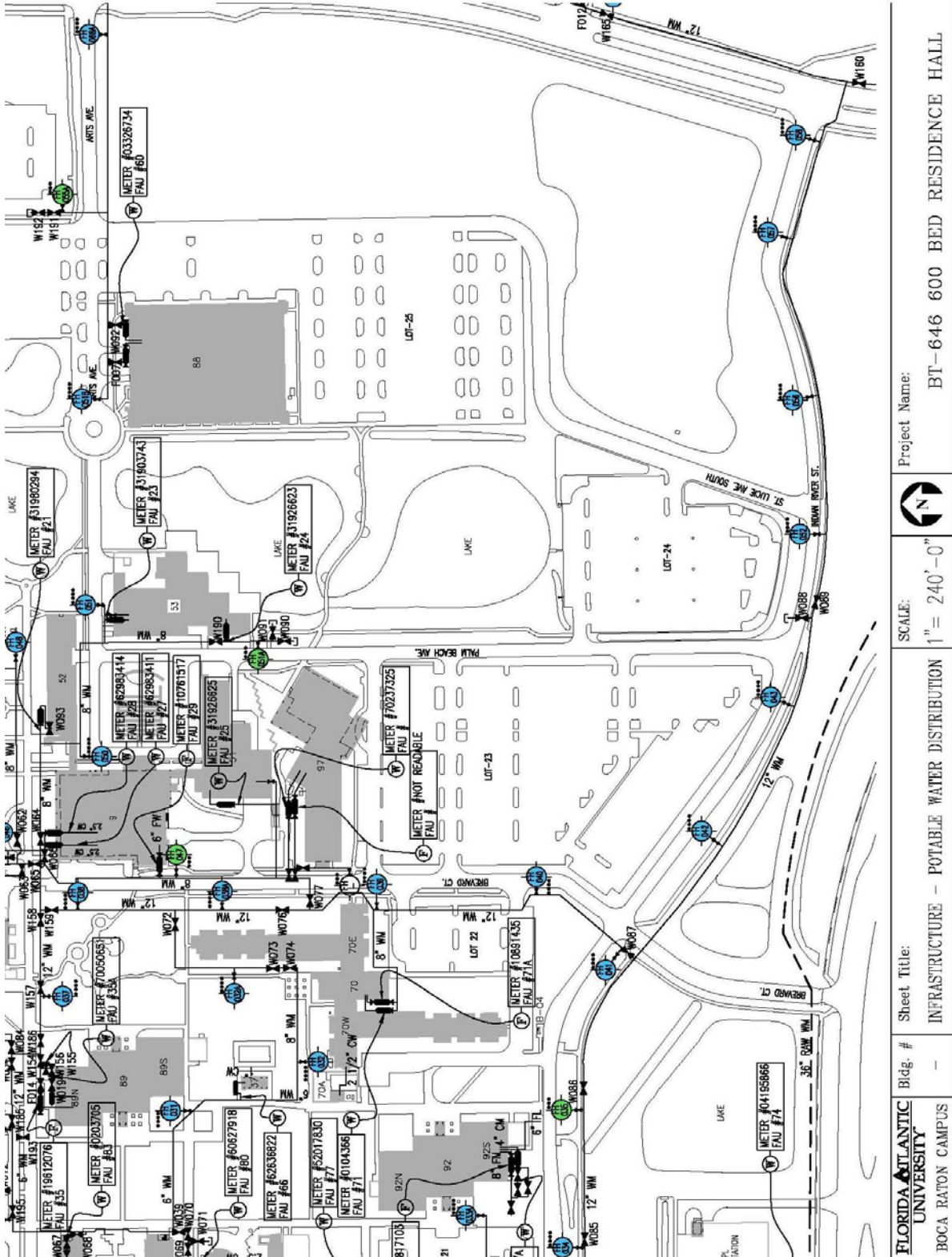
B. INFRASTRUCTURE MAPS


The following infrastructure planning drawings for the site are available from the Division of Facilities. All existing utilities and conditions shall be verified by the design team. The plan below shows site locations which were considered. At the time of this program writing, Site C is the preferred site. Consideration for the future straightening of Indian River Street, and it's widening to a four lane boulevard must be given in the planning process.



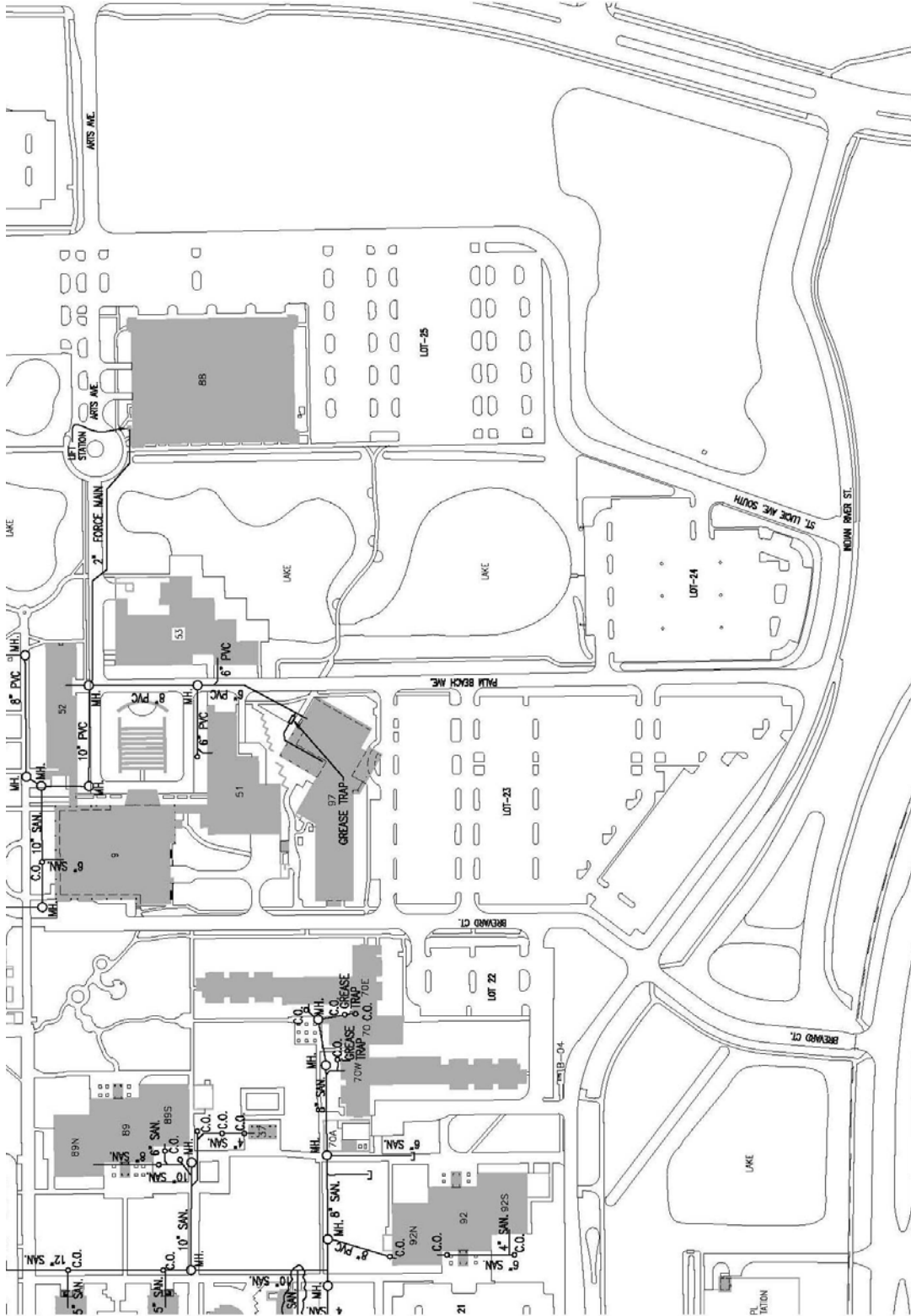
D - off map to the southwest on the soccer fields at Glades Road


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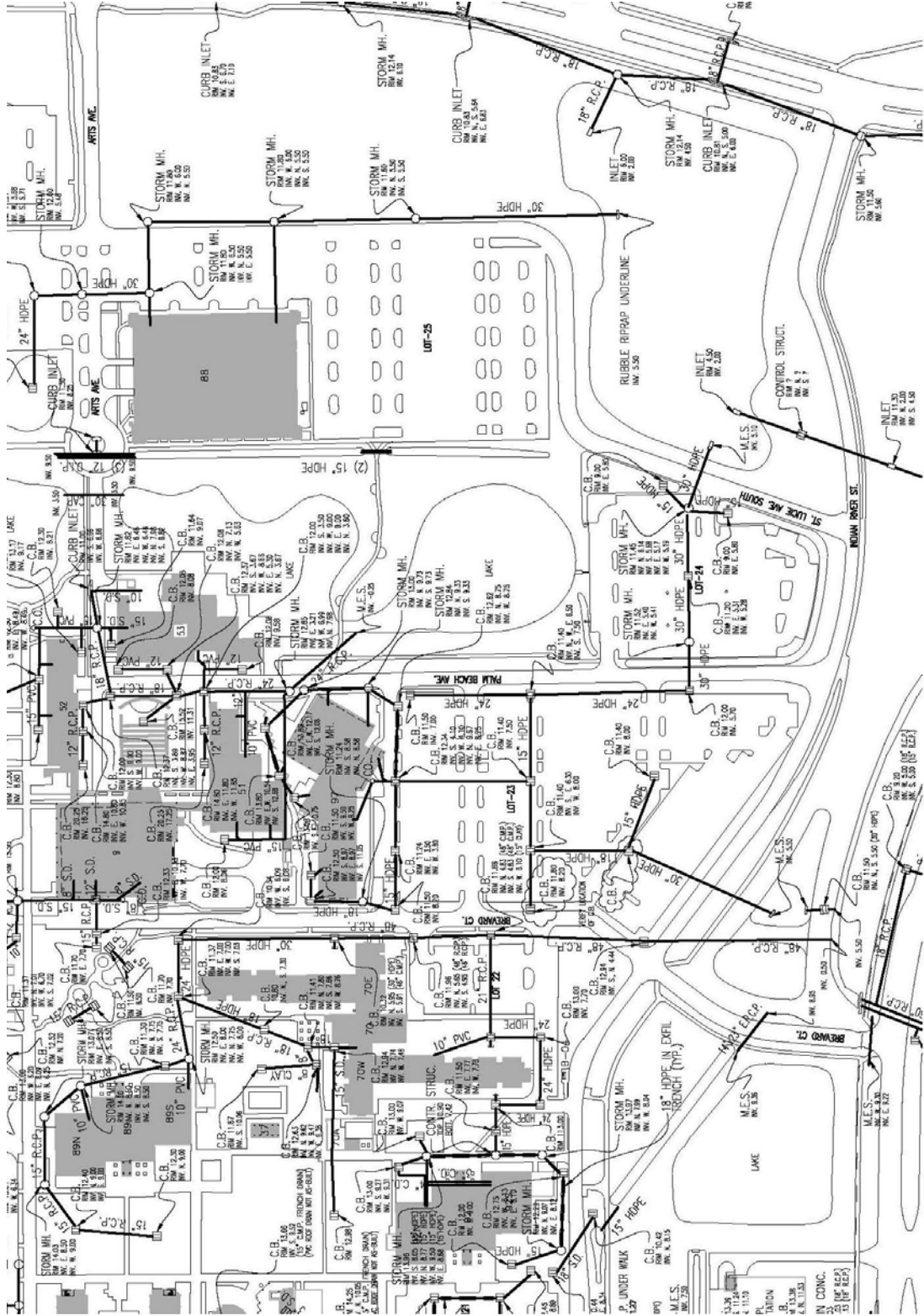
FLORIDA ATLANTIC UNIVERSITY BOCA RATON CAMPUS	Bldg. # -	Sheet Title: INFRASTRUCTURE - POTABLE WATER DISTRIBUTION	SCALE: 1" = 240'-0"		Project Name: BT-646 600 BED RESIDENCE HALL
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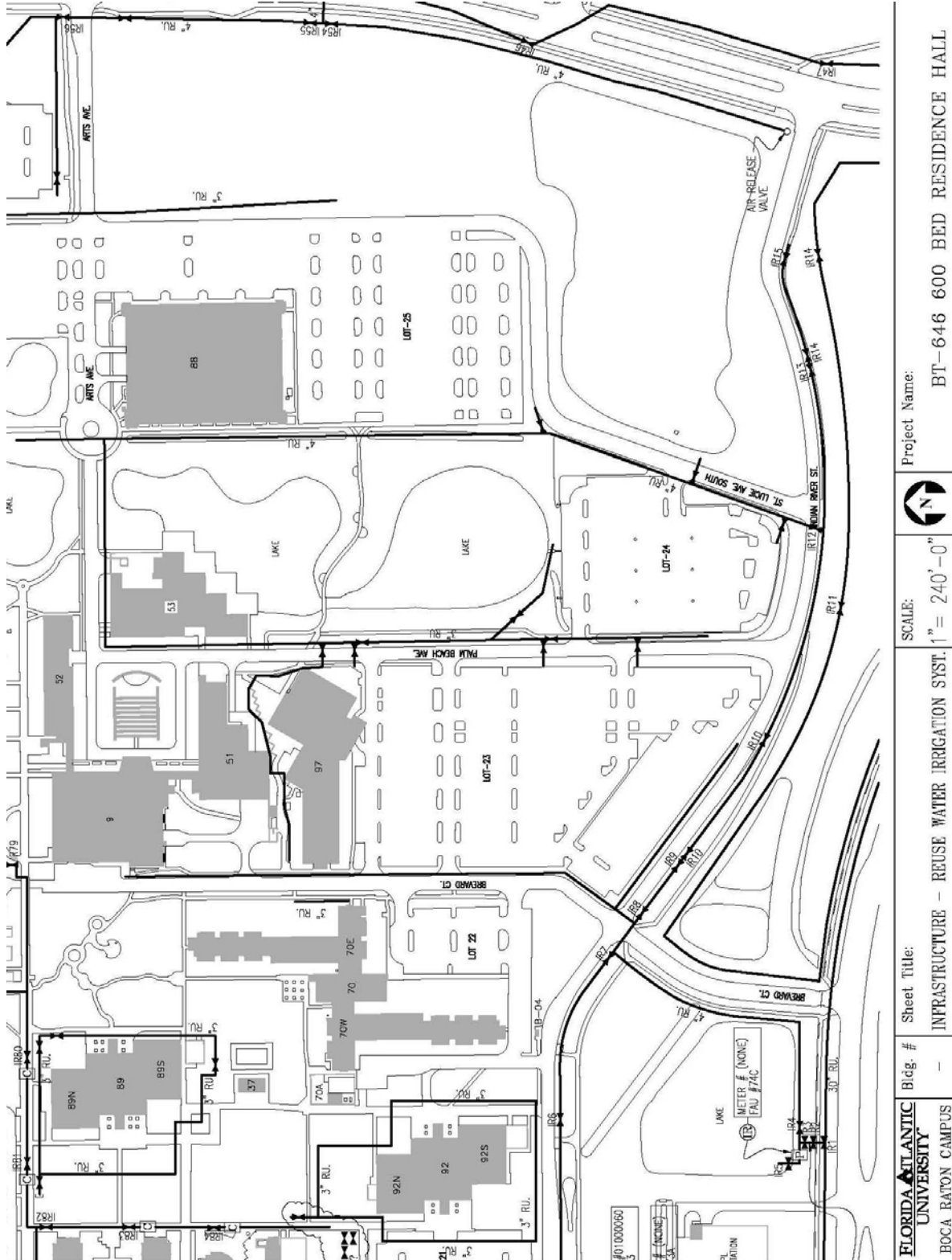
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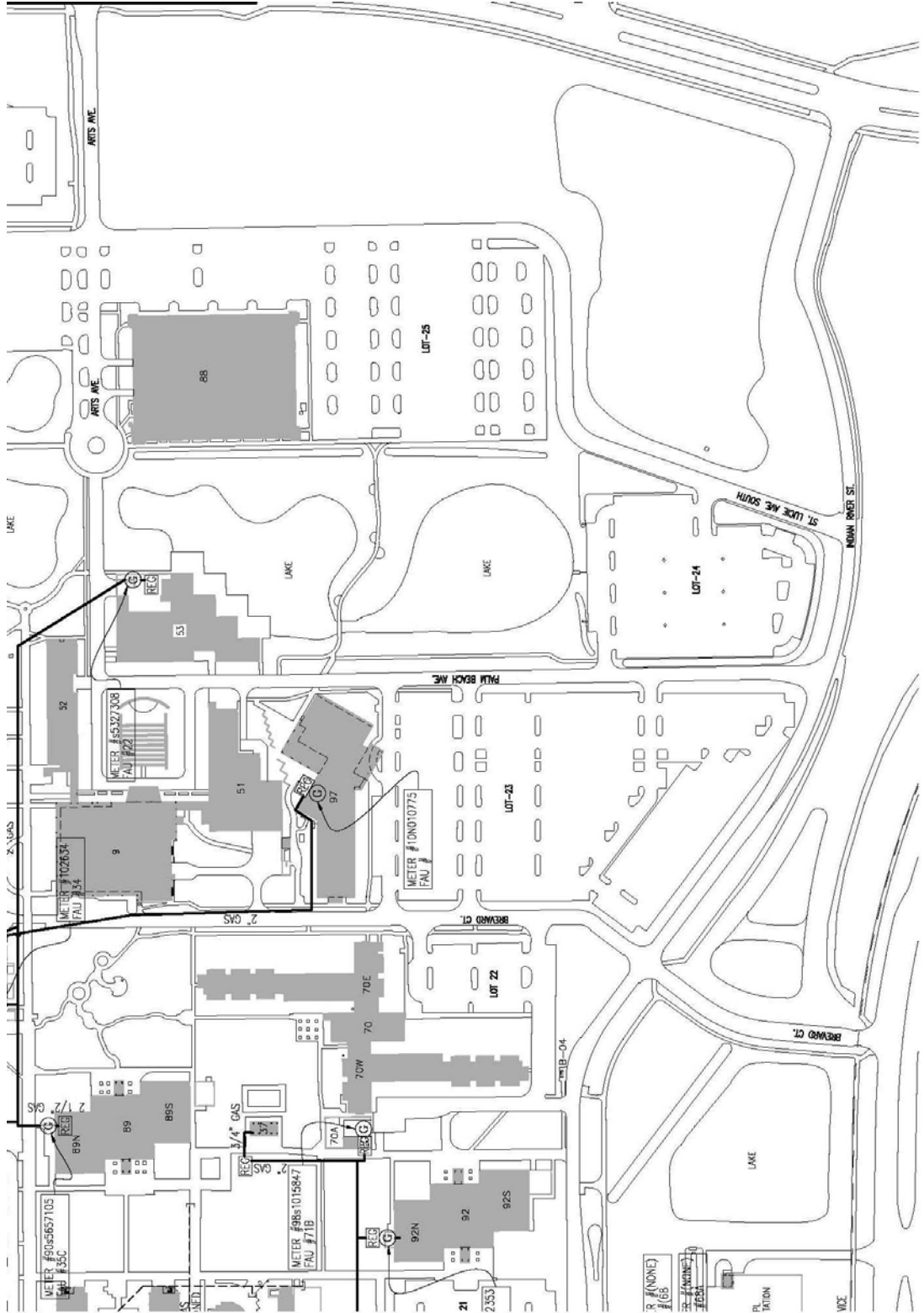
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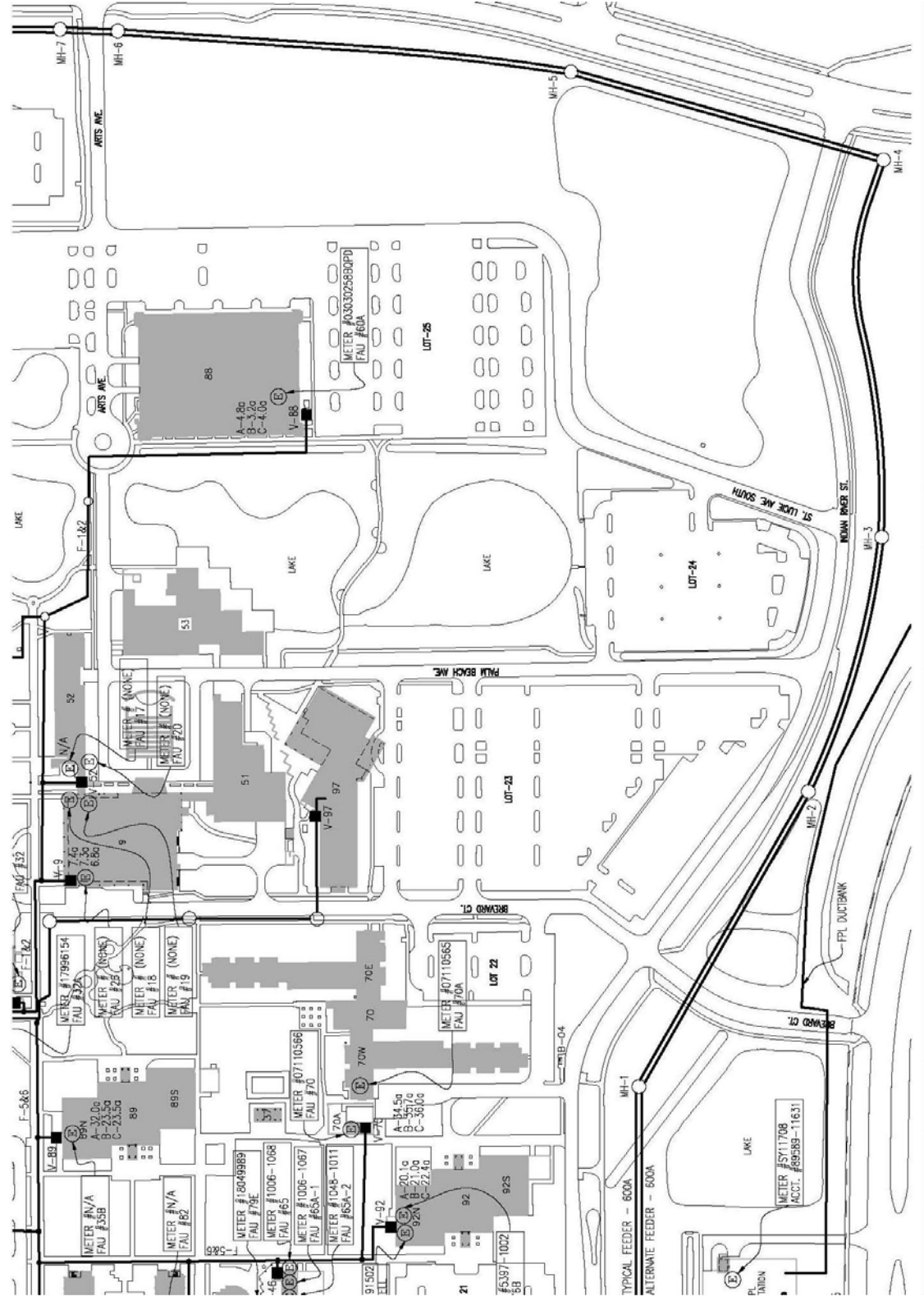
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			Project Name: BT-646 600 BED RESIDENCE HALL

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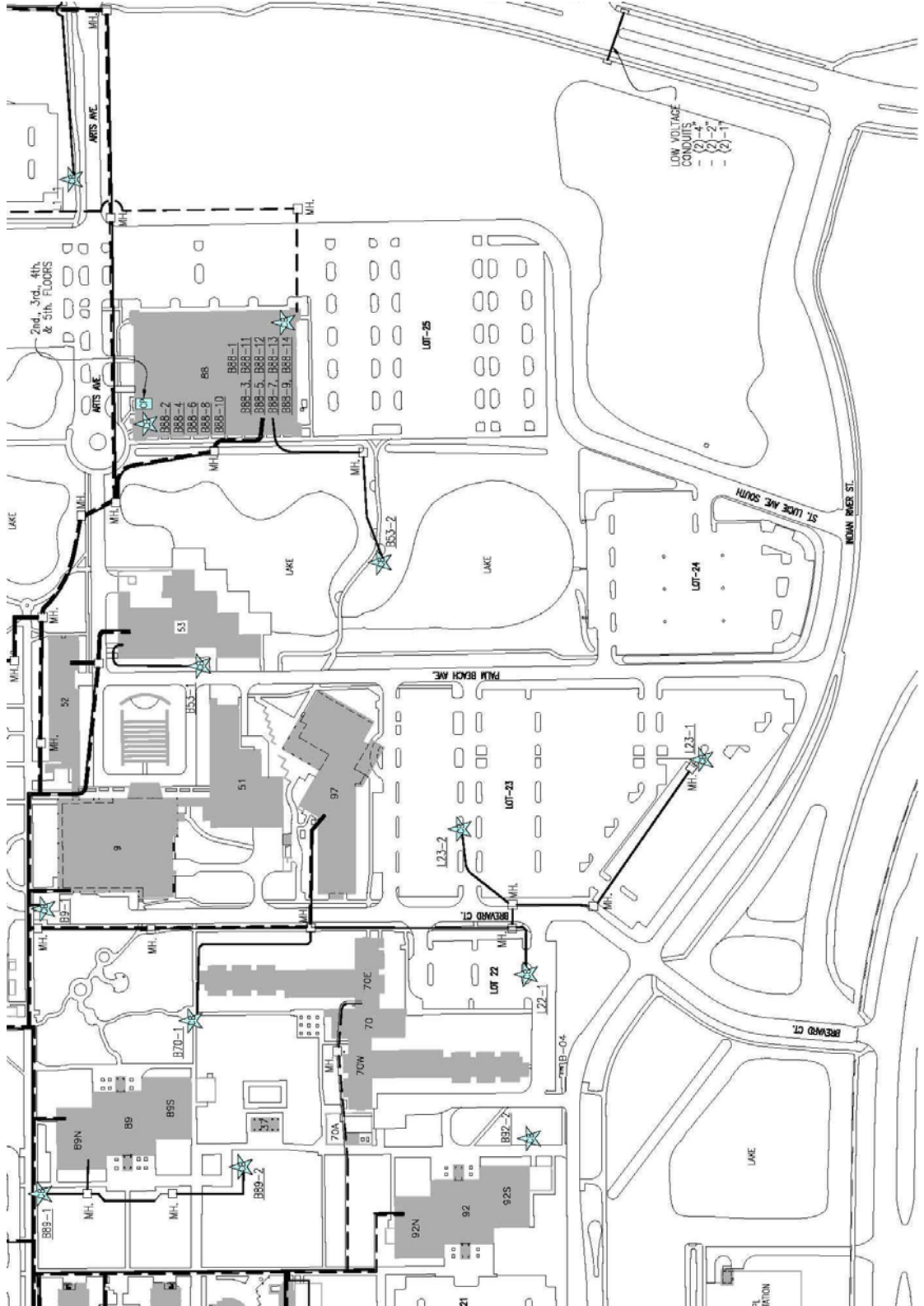
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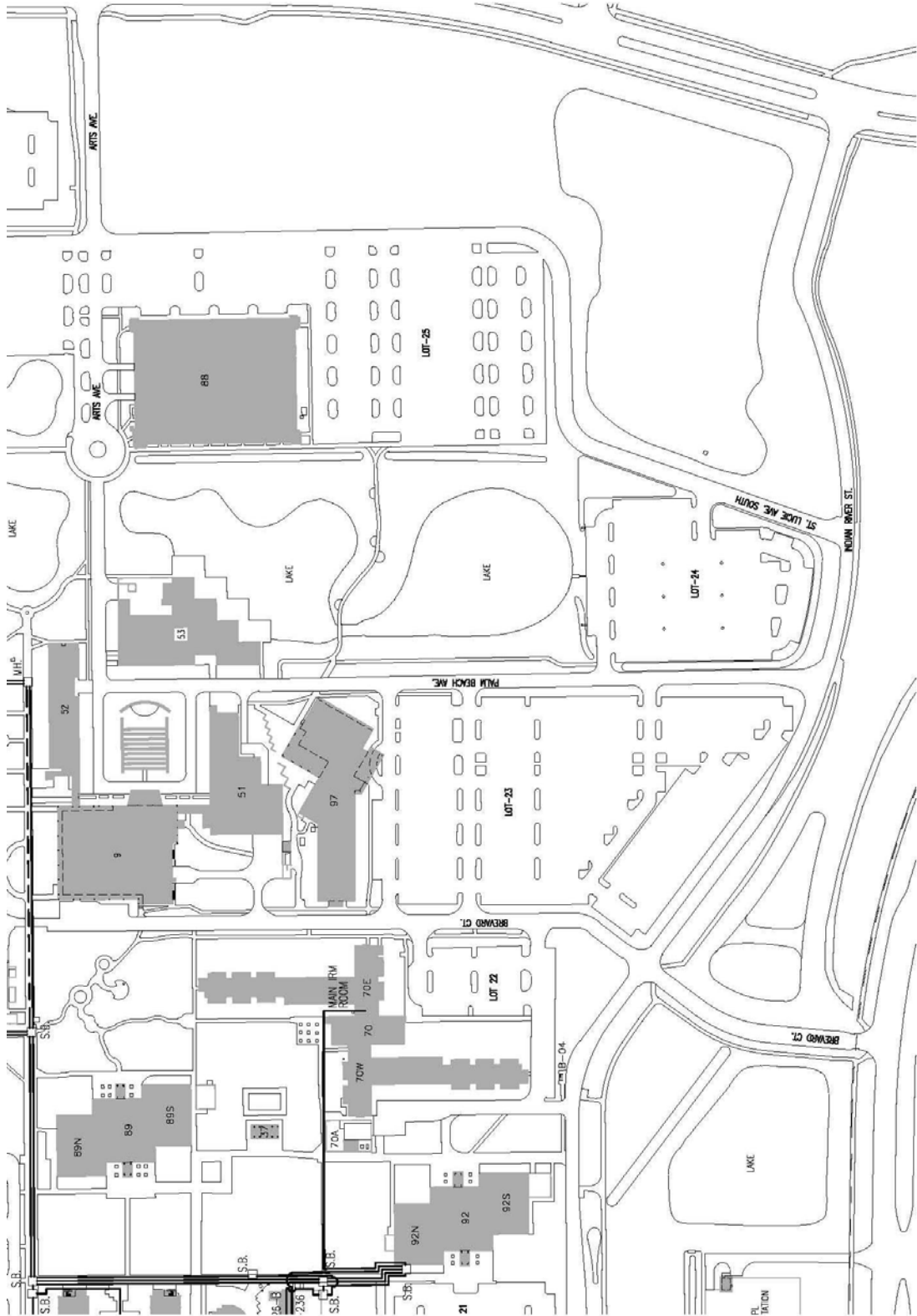
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Bidg. # -	BOCA RATON CAMPUS


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FLORIDA ATLANTIC UNIVERSITY BOCA RATON CAMPUS	Blg. # -	Sheet Title: INFRASTRUCTURE - IRM TELECOM./DATA SYST.	SCALE: 1" = 240'-0"		Project Name: BT-646 600 BED RESIDENCE HALL
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FLORIDA ATLANTIC UNIVERSITY BOCA RATON CAMPUS	Bldg. # -	Sheet Title: INFRASTRUCTURE - TV CABLE SYSTEM	SCALE: 1" = 240'-0"		Project Name: BT-646 600 BED RESIDENCE HALL
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XI. INFORMATION / COMMUNICATIONS RESOURCES REQUIREMENTS

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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://wise.fau.edu/irm/ts/cblspecs.htm>.

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.

See the consolidated IRM cost estimate on the following page.

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The following is a consolidated estimate of IRM costs. These costs are included in the project budget in Section XV of this program:

Project: Freshman Residence Hall v2			
Date Submitted: November 7, 2011			
IRM Required Elements			
	ELEMENT	AMOUNT	NOTES/QUANTITIES
Jade	Inside and Outside Plant - voice/data/video/CATV	\$ 402,693.45	CATV is for inside only
		\$ 31,000.00	X Added outlets
	Internal Wireless Access Points with Installation	\$ 240,000.00	150 WAPs
		\$ 38,400.00	X 24 add'l WAPs
	External Wireless Access Points with Installation	\$ 50,400.00	12 WAPs
Siemens	Voice Switching Requirements	\$ 3,768.00	
Cisco	Data Switches, Routers, Devices	\$ 225,000.00	3
		\$ 75,000.00	X 1
Voice/Data/Security/ Misc Vendors			
	Phone Sets	\$ 6,988.00	28 hall/10 admin
	UPS	\$ 9,800.00	3 units
	Emergency Phone		
	Inside	\$ 1,759.00	lobby/entrance
	Outside (Solar Panel wi Pedestal)		
	Automatic Lock Down	\$ 67,575.00	
	BellSouth/PaeTec		
	1FBs	\$ 633.00	elevators
	Special Circuits		
	Alarms		
	OPX		
	IRM Faceplate Allowance	\$ 97,500.00	650 @ \$150 ea
		\$ 15,000.00	X 100 add'l faceplates
	Total IRM Costs	\$ 1,265,516.45	
End User Requirements As Indicated in Program			
	Vendors (various - no set vendor contract)		
	Sm Distance Learning Classroom (25-40 seats)		NA
	Distance Learning Classroom (50+ seats)		NA
	Conf Room wi Video	\$ 45,000.00	X
	Basic Electronic Classroom	\$ 63,800.00	X 2 rooms
	Teaching Auditorium w/o Distance Learning		NA
	Teaching Auditorium with Distance Learning		NA
	Cable TV		included above
	Total End User Requirements	\$ 108,800.00	
IRM TOTAL PROJECT BUDGET			
	IRM Infrastructure Costs	\$ 1,265,516.45	
	End User Requirement Costs	\$ 108,800.00	
		\$ 1,374,316.45	
NOTES AND ASSUMPTIONS			
Assumes: full wireless coverage, office/hall phones only and standard cable TV as opposed to IPTV (which is network dependent).			
X = Costs not available for original quote.			

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.

		<i>DESCRIPTION</i>
	Year	Building Codes
1.	2004	Florida Building Code, Building
2.	2004	Florida Building Code, Mechanical
3.	2004	Florida Building Code, Fuel Gas
4.	2004	Florida Building Code, Plumbing
5.	2004	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	2004	Fire Prevention Code
10	2002	Standard for Portable Fire Extinguishers
13	2002	Standard for the Installation of Sprinkler Systems
13R	2002	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including four stories in Height
14	2003	Standard for the Installation of Standpipe and Hose systems, except 2-7 Shall be omitted
20	2003	Standard for the Installation of Centrifugal Fire Pumps
24	2002	Standard for the Installation of Private Fire Service Mains and Their Appurtenances
25	2002	Standard for the Inspection, Testing & Maintenance of Water Based Fire Protection Systems
30	2003	Flammable and Combustible Liquids Code
45	2004	Standard on Fire Protection for Laboratories Using Chemicals
70	2005	National Electrical Code
72	2002	National Fire Alarm Code
90A	2002	Standard for the installation of Air Conditioning and Ventilating Systems
96	2004	Standard for Ventilation Control and Fire Prevention of Commercial Cooking Operations
101	2003	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 Statutes sections 471, 481 and 553s

XIII. PROJECT SCHEDULE**600 BED RESIDENCE HALL**

CONSTRUCTION MANAGEMENT PROJECT DELIVERY METHOD

Project: BT-646 - 600 Bed Residence Hall			Date:	12/5/2011
GOALS AND MILESTONES	DURATION	START DATE	END DATE	
PROGRAM APPROVAL	4 weeks	02-Nov-2011	02-Dec-2011	0.1 Years
Complete Program Development	2 weeks	04-Nov-2011	18-Nov-2011	
Approvals and Signatures	2 weeks	18-Nov-2011	02-Dec-2011	
A/E SELECTION PROCESS	10 weeks	02-Dec-2011	10-Feb-2012	0.2 Years
Advertise for A/E in FAW	6 weeks	02-Dec-2011	13-Jan-2012	
BOARD OF TRUSTEES DECEMBER COMMITTEE MEETING - TO BE VERIFIED BY VP of FINANCE				
A/E Short-list	1 weeks	13-Jan-2012	20-Jan-2012	
A/E Interviews & Selection	2 weeks	20-Jan-2012	03-Feb-2012	
Contract Negotiations with A/E	1 weeks	03-Feb-2012	10-Feb-2012	
C/M SELECTION PROCESS	10 weeks	02-Dec-2011	10-Feb-2012	0.2 Years
Advertise for C/M in FAW	6 weeks	02-Dec-2011	13-Jan-2012	
C/M Short-list	1 weeks	13-Jan-2012	20-Jan-2012	
BOARD OF TRUSTEES JANUARY FULL SESSION				
C/M Interviews & Selection	2 weeks	20-Jan-2012	03-Feb-2012	
Contract negotiations with C/M	1 weeks	03-Feb-2012	10-Feb-2012	
DESIGN PHASE	20 weeks	10-Feb-2012	29-Jun-2012	0.4 Years
Master Planning, Schematic Design	3 weeks	10-Feb-2012	02-Mar-2012	
Advanced Schematic Design review and approval	1 weeks	02-Mar-2012	09-Mar-2012	
BOARD OF GOVERNORS MARCH DBF MEETING				
Design Development and Budget verification	5 weeks	09-Mar-2012	13-Apr-2012	
Design Development review and approval	2 weeks	13-Apr-2012	27-Apr-2012	
BOND PROCEEDS - MAY 2012				
100% Construction Documents and Budget update	5 weeks	27-Apr-2012	01-Jun-2012	
100% Construction Documents review and approval	2 weeks	01-Jun-2012	15-Jun-2012	
Code Review, submittal to SFM, GMP	4 weeks	01-Jun-2012	29-Jun-2012	
CONSTRUCTION PHASE	56 weeks	29-Jun-2012	26-Jul-2013	1.1 Years
Notice to Proceed	1 weeks	29-Jun-2012	06-Jul-2012	
Construction	52 weeks	06-Jul-2012	05-Jul-2013	
Substantial Completion & Inspection	1 weeks	05-Jul-2013	12-Jul-2013	
Punchlist Corrective Work & Final Inspection	1 weeks	12-Jul-2013	19-Jul-2013	
Owner Move in / Occupancy	1 weeks	19-Jul-2013	26-Jul-2013	
Total	90 weeks	02-Nov-2011	26-Jul-2013	1.7 Years

Yellow highlights in the schedule above depict approximate funds process and approval dates, and will be coordinated by the VP of Finance.

XIV. PROGRAM FUNDS

600 BED RESIDENCE HALL

A. ESTIMATED FUNDING

FUNDING		
Housing Funds for Design, Pre-construction, Surveys and Permits (to be reimbursed from bond funds)	\$2,000,000.00	
Auxiliary Funds for Design & Construction of replacement parking which is required prior to bond proceeds – see schedule (to be reimbursed from bond funds)	\$1,000,000.00	
Bonds (includes \$2,000,000.00 to be re-paid to Housing and \$1,000,000.00 to be re-paid to Auxiliary)		\$41,678,000.00
TOTAL PROJECT FUND *		\$41,678,000.00

* Bond issuance costs are not included in the total bonds figure above, nor in the estimated project costs in the Budget Summaries that follow.

C. ESTIMATED BUDGET SUMMARY

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

ESTIMATED BUDGET SUMMARY					
	GSF			\$\$/Space	Total \$\$
1 Construction Costs					
a. Construction Costs	189,796			150.00	\$28,469,300.00
b. Additional/Extraordinary Construction Costs				11.54	\$2,190,000.00
c. Inflation Escalation				-	\$0.00
Sub Total Construction Costs	189,796			161.54	\$30,659,300.00
2 Other Project Costs					
a. Impact Fees to City of Boca Raton *					\$1,591,700.00
b. Professional Fees					\$ 2,322,400.00
c. Fire Marshal Fees					\$76,600.00
d. Inspection Services					\$251,300.00
e. Insurance Consultant					\$19,100.00
f. Surveys and Tests					\$27,000.00
g. Permit/Impact/Environmental Fees					\$5,000.00
h. Art Work					\$100,000.00
i. Movable Furnishings & Equipment					\$3,029,900.00
j. IRM Costs					\$1,424,300.00
k. Project Contingencies					\$1,226,400.00
l. Parking Replacement Costs					\$945,000.00
Sub Total Other Project Costs				58.06	\$11,018,700.00
TOTAL PROJECT BUDGET				219.59	\$41,678,000.00
				616 Beds - Cost per bed:	\$ 67,659.09
				Cost per bed w/o Food Service:	\$61,969.16
* This fee payable to the City of Boca Raton as part of water and sewer impact fees may be adjusted once the final number of units is confirmed by the actual design.					

XV. PROJECT BUDGET SUMMARY

600 BED RESIDENCE HALL

PROJECT SPACE AND BUDGET SUMMARY (Reference: SUS CM-N-04.00-09/97, Attachment 3)

Bond issuance costs are not included in the Project Budget below.

Project: BT-646 600 BED RESIDENCE HALL				Revised:	12/5/2011
WORKSHEET FOR SECTION XV, PROJECT BUDGET SUMMARY					
Fill in the Yellow shaded area only		Return to:	XV, Summary	Worksheets:	Schedule
Automatic entry in Light Green			IX, Program		Program
PROJECT SPACE AND BUDGET SUMMARY (Reference: SUS CM-N-04.00-09/97, Attachment 3)					
Inflation Adjustment	1	Years @	0.00 %	Effective Rate	0.00 %
Construction Phase Duration	1	Years			
Design Phase Duration	1	Years		Estimated Budget	\$41,678,000.00
	0.71471			Target Budget	\$ 41,678,000.00
SPACESUMMATION (from Section IX of Facilities Program)					
Program Space Type (New Construction)	NASF	Factor	GSF	Cost/SF	Costs in \$
Student Resident Units	116,150	1.30	150,995	150.00	\$22,649,250.00
Auxiliary Space	18,690	1.45	27,101	150.00	\$4,065,075.00
Cafeteria	9,000	1.30	11,700	150.00	\$1,755,000.00
Avg. Construction Cost					
Subtotal Building Construction	143,840	1.32	189,796	<i>Rounded to 100</i>	\$28,469,300.00
1 CONSTRUCTION COSTS (Reference: SUS CM-D-38.00-09/97, Attachment 1-B)					
a. Building Construction Cost		Units		Unit Cost	Costs in \$
New Construction Cost	189,796	GSF			\$28,469,300.00
Sub-Total Building Construction Costs (today's \$\$)				\$150.00	\$28,469,300.00
b. Additional/Extraordinary Construction Cost		Units		Unit Cost	
All Site work less new parking areas	1	Allowance	\$ -	\$750,000.00	
Site Preparation/Demolition	1	Allowance	\$ -	\$0.00	
Landscape/Irrigation	1	Allowance	\$ -	\$0.00	
Plazas/Walks	1	Allowance	\$ -	\$0.00	
Roadway Improvements	1	Allowance	\$ -	\$0.00	
New parking for students at 60% of students	360	spaces	\$ 4,000.00	\$1,440,000.00	
Parking Improvements @ existing surface lots	1		See Contingencies*	\$0.00	
Electrical Services & Emergency Generators	1	Allowance	\$ -	\$0.00	
Water Distribution	1	Allowance	\$ -	\$0.00	
Sanitary Sewer System	1	Allowance	\$ -	\$0.00	
Chilled Water System	1	Allowance	\$ -	\$0.00	
Storm Water System	1	Allowance	\$ -	\$0.00	
Telecomm - Concrete encased conduit & interior conduit by AE and CM. Wire Pulled by FAU. See Other Costs.	1	Allowance	\$ -	\$0.00	
Sub-Total Add/Extra Construction Costs - Site Development Allowance for Above Items				Round to 100	\$2,190,000.00
TOTAL CONSTRUCTION COSTS - BUILDINGS and SITE DEVELOPMENT				161.54	\$30,659,300.00
Inflation Adjustment					\$0.00
TOTAL CONSTRUCTION BUDGET				\$ 161.54	\$30,659,300.00
				616 Beds - Cost per bed:	\$ 49,771.59
				Cost per bed w/o Food Service:	\$46,922.56

Please see Other Project Costs and Total Project Budget on next page.

600 BED RESIDENCE HALL

2 OTHER PROJECT COSTS Add or delete following items as required.					Costs	Subtotals (rounded)
a.	Impact Fees to City of Boca Raton				\$1,591,710.00	\$1,591,700.00
b.	Professional Fees					
	A/E Fees (Curve E: Less Average)	5.84	%		\$ 1,790,503.12	
	Civil Engineering	10.00	%	of AE Fee	179,050.31	
	Landscape Design Fee (5% of A/E fee)	5.00	%	of AE Fee	89,525.16	
	Master Planning, Landscaping & Misc Design F	1	Allowance		\$ 30,000.00	
	Building Commissioning (T&B)	1	Allowance		\$ 30,000.00	
	Misc Consultant Fees / Food Service, Acoustics	1	Allowance		\$ 50,000.00	
	C/M Pre-Construction Services Fee	0.50	%		\$ 153,296.50	
	Sub-Total Professional Fees					\$ 2,322,400.00
c.	State Fire Marshal Review and Inspection	0.25	%		\$76,648.25	\$76,600.00
d.	Inspection Services					
	Roofing Inspection	1	Allowance	\$ 10,000.00	\$10,000.00	
	Threshold Inspection	1	Allowance	\$ 50,000.00	\$50,000.00	
	Vibro Compaction Monitoring	1	Allowance	\$ 15,000.00	\$15,000.00	
	Code Compliance Inspection (weekly)	0.500%	of Bldg Construction Cost		\$153,296.50	
	Plan Review (Code Compliance Inspection)	0.075%	of Bldg Construction Cost		\$22,994.48	
	Sub-Total Inspection Services					\$251,300.00
e.	Risk Management / Insurance Consultant	0.06	%		\$18,395.58	\$19,100.00
f.	Surveys & Tests					
	Topographical/Site Survey	1	Allowance	\$ 15,000.00	\$15,000.00	
	Geotechnical Testing	1	Allowance	\$ 12,000.00	\$12,000.00	
	Sub-Total Surveys & Tests					\$27,000.00
g.	Permit/Impact/Environmental Fees					
	Environmental (SFWM)	1	Allowance	\$ 5,000.00	\$5,000.00	
	Sub-Total Permits/Impact Fees					\$5,000.00
h.	Art in State Building (Section 255.043, F.S.)	0.5	%	Max \$100K	\$100,000.00	\$100,000.00
i.	Movable Furniture & Equipment					
	FFE - Surveillance Equipment	1	Allowance	\$ 250,000.00	\$250,000.00	
	FFE - Furniture	1	Allowance	\$ 1,000,000.00	\$1,000,000.00	
	FFE - Equipment - Custodial & Card Access	1	Allowance	\$ 30,000.00	\$29,900.00	
	FFE - Kitchen Equip /Cafeteria Fit-out/Furniture	1	Allowance	\$ 1,750,000.00	\$1,750,000.00	
	Subtotal Moveable Furniture & Equipment(FFE)					\$3,029,900.00
j.	IRM Costs					
	IRM Costs from estimate in Section XI	1	Allowance	\$ 1,265,516.00	\$ 1,265,516.00	
	IRM Data Switch Equipment (Section XI)	1	Allowance		(Incl. above)	
	IRM # of Drops (Section XI)	750	Drops @ \$150.00		(Incl. above)	
	IRM Voice, Data, Video (Section XI)	1	Allowance	\$ 108,800.00	\$ 108,800.00	
	Estimated additional IRM Costs for Food Service	1	Allowance	\$ 50,000.00	\$ 50,000.00	
	Sub-Total IRM Costs					\$ 1,424,300.00
k.	Project Contingency	4	%		\$1,226,372.00	\$1,226,400.00
l.	Parking Replacement Costs	225	Cars @	4,200.00	\$945,000.00	\$945,000.00
	TOTAL OTHER PROJECT COSTS					\$11,018,700.00
	TOTAL PROJECT BUDGET COST ESTIMATE				\$219.59	\$41,678,000.00
				616 Beds - Cost per bed:	\$	67,659.09
				Cost per bed w/o Food Service:		\$61,969.16