



Tubman University

Facilities Master Plan

2012 - 2022

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April 20, 2012

William V.S. Tubman University
FACILITIES MASTER PLAN

WILLIAM V.S. TUBMAN UNIVERSITY
HARPER, MARYLAND COUNTY

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PREFACE, SUMMARY OF SCOPE

This comprehensive Facilities Master Plan was undertaken to establish a framework for the physical growth and change that can be anticipated for William V. S. Tubman University (TU). The commissioning of this planning process reflects the University's commitment to excellence in the midst of practical, economic, and structural impediments to change.

The plan begins with an overview and background of the University, followed by a space needs analysis that projects the need for space via new or renovated facilities based on enrollment projections provided by the University. In addition to the Space Needs analysis, the existing facilities are evaluated to determine their adequacy and relevancy in serving the changing needs of TU. The site planning process develops options and recommends a plan for the orderly development of TU main campus and its infrastructure to accommodate its needs over the next ten years.

Capital projects are identified as short or long term projects; some may be undertaken as funds become available and as influenced by other projects by partner institutions. For each major project that proceeds, the Master Plan will need to be followed by programming, design, and construction, unless programming or design have been undertaken already. The plan does not attempt to design projects, but it does provide a site plan for the main campus, identifying locations and establishing relationships of major components.

The plan should be regarded as a working document, which will need to be periodically reviewed and updated; it is recommended that the update should occur by or before 2022. An event such as availability of funding for a major project may suggest an earlier update.

This process results in both a master plan and facilities assessment. The facilities assessment component provides an inventory and evaluation for the site infrastructure, buildings, and building systems. This provides the foundation for the evaluation, both quantitatively and qualitatively, of the facilities and for recommendation for improvements to the site and buildings.

The planning process for development of this comprehensive Facilities Master Plan results in a long-range planning document that addresses a broad range of subjects including:

- Review of the University's vision, mission, functional and instructional program emphasis, and organizational structure.
- Analyses of the academic programs and projections of institutional growth.
- Inventory of existing facilities and patterns of physical development.
- Identification of projects that are needed to support the programs, personnel, and student clientele of the University for the next ten years.

The information contained in this master plan serves various purposes. It affords the University a written reference that can be used to facilitate communication within the TU

community. This document also provides the rationale for physical improvements and serves as the basis for long-range capital development.

Inventory data concerning the existing facilities are collected and presented. Recommendations are provided for renovation, replacement, and/or new construction as necessary, and priorities are suggested for the recommended facilities actions. In brief, this document aggregates the inventory of existing facilities and physical resources, identifies current and future facility needs of William V. S. Tubman University, and then provides a framework for achieving the required additional facilities.

While this study covers a wide range of issues at TU, there are areas that are not covered in depth. They include technical areas such as Mechanical, electrical, and telecommunications systems. While parking and traffic are discussed, they have not been specifically studied in detail. Further studies are suggested for projects that impact these considerations. In addition, while certain capital projects are proposed, the size, location, scope, cost, and functions of each will need to be distilled in facility programming and design.

Some information is repetitious. This has been provided for clarity and/or where some information relates to more than one topic.

THE PLANNING PROCESS

The comprehensive Master Plan was developed during the 10 months period from May, 2011. Information gathering began with the University providing extensive information on the facilities, institutional history, enrollment, programs and operations. Serving as the basis for current and future space needs, the enrollment and projected enrollment were established by the University, and planned program expansion, which further increased the projected enrollment. Space needs were determined and allocated according to HEGIS code. Extensive interviews, focus groups, open “town hall” meetings were conducted with students, staff, faculty, the University leadership, Trustees, and Cities and County Officials for the master plan.

Parallel to these efforts, the buildings were documented photographically and in floor plan, showing the various uses for each building. Site conditions were evaluated in the same way. The consultants visited each of the University Sites, and documented the layout and condition of all spaces in all locations. Architectural, mechanical, electrical, and technology needs were all addressed. Combining considerations of formula-driven space needs calculations, as well as qualitative factors, the consultant team and University developed a list of recommended capital projects. A preferred plan was selected and refined, ultimately becoming the selected development plan for this report.

ACKNOWLEDGEMENTS

Any comprehensive project requires assistance from a large number of people. It is even more the case with a project such as this Ten Year Facilities Master Plan. The KDC Consultant Team thanks those who have, through their individual and collective efforts, made the job of creating this master plan possible. Those include:

The president, Dr. Elizabeth Davis – Russell and members of her cabinet and council.

The Consultant team is especially grateful to Dr. Joe T. Isaac, Dr. Elizabeth Carbajosa, Rev. Rita Townsend, Dean Gerald Coleman, Gloria Williams and Alex Scere who spent hours working with the team, answering questions, and producing materials, information and data that allowed analysis to proceed.

Finally, we are grateful to the entire Tubman University family that contributed to this effort, through interviews, input, and insights, all of which helped to make this plan a more informed document. This process allowed the KDC team to better understand the realities of TU as a Sub-urban institution in southeastern Liberia and to share the visions and aspirations of the entire University community. All persons whom we encountered along the way made the team feel welcome and demonstrated that which makes this institution a very unique place.

For:
KIARA Development Corporation, Inc.

Alexander M. Massey
President
Architect & Planner

OVERVIEW OF THE UNIVERSITY

William V.S. Tubman University (TU) is a nationally accredited comprehensive, open-admissions, government sponsored, four year degree – granting institution with a local, national and international focus. As a suburban institution serving a broad constituency, and Southeastern Liberia-only University, TU offer a wide range of transfer, career, continuing education, and personal development education programs. TU also plays a vital role in the economic, social, and health development initiatives in Maryland County and the Southeastern region as a whole.

Tubman University has one main campus in Harper, Maryland County, Liberia, along with several auxiliary/off-campus sites. The main campus consists of sixteen buildings on an approximately 294 acres of land, located in Tubman Town of the greater Harper City area. Its off-campus sites include 1. The Academic Annex Site located directly across from the main campus entrance. 2. The E. U. Science Complex Site which is currently being occupied by the Pakistani Medical Unit of UNMIL on Stadium Road in central Harper. 3. The Barrobo Site is 500 acres University Farm located in Barrobo District of Maryland County. 4. The Cavalla site is located in Cavalla Township, Harper District. It is the University's 500 acres Integrated Village Concept Site, which will include the University's agriculture research initiatives. 5. The Hotel and Conference Site is a 20 acres parcel of land located in the Jacksonville Township of the greater Harper City area. 6. The Parsonage – A leased three level Church Facility located at the intersection of McGill and Gregory Streets in the City of Harper. It is currently being utilized as a temporary Residence Hall for both male & female students. And 7. The Monrovia Site – a leased two level facility which provides housing accommodation and office for the University's Monrovia Office. The Monrovia Site is located on 15th Street adjacent to the Royal Hotel, one block north of Tubman Boulevard in Sinkor.

LEGEND

1. ACADEMIC ANNEX
2. ACADEMIC COMPLEX
3. ADMINISTRATIVE BUILDING
4. CAFETERIA BUILDING
5. BOYS DORMITORY
6. RESIDENCES
7. TUBMAN HALL
8. GUEST HOUSE
9. HEALTH CLINIC/RUBBER TECH BLDG
10. STUDENTS CENTER
11. ENGINEERING BUILDING
12. PROPOSED SECURITY/COMMAND CENTER
13. FACILITIES OFFICE/OPERATIONS
14. HR/FACILITIES FOUNDATION
15. OLD AGRICULTURE BLDG
16. STUDENTS RECREATIONAL PALAVA HUT
17. WATER TOWERS
18. LONESTAR TOWER
19. TUBMAN MONUMENT
20. BUS STOPS
21. SECURITY BOOTH
22. SOCCER FIELD
23. VOLLEYBALL COURT
24. BASKETBALL COURT



EXISTING CAMPUS MAP

EXISTING CAMPUS MAP

HISTORICAL AND CONTEMPORARY FACTORS THAT INFLUENCED DEVELOPMENT

William V.S. Tubman University is a “new-old” institution of higher learning. It is “old” in that it is an institution of higher learning that is an outgrowth of the former “William V.S. Tubman College of Technology”, (TC) for short.

TC began in 1978 as a gift to the 19th President of Liberia, William V. S. Tubman in 1970 by the people of Maryland County. The gift marked the 75th birthday celebration of the President. The Tubman College of Technology began operations in August 1978 with an initial enrollment of 87 students. In subsequent years, TC thrived in producing 50% - 60% of Liberia’s technocrats in the fields of architectural, civil, electrical, electronic and mechanical engineering. The enrollment soon increased to 221, and the College of Technology had advanced from only offering Associate degrees in these fields. By 1990, the National Commission on Higher Education (NCHE) in Liberia accredited TC to offer 5 years Bachelor of Science Degrees in several engineering disciplines. Unfortunately, education at TC came to an abrupt halt with the inception of Liberia civil conflicts sparked by the civil war.

The campus, its infrastructural support, buildings, libraries, etc. were severely looted, damage, and left bereft of its promising glory of producing Liberia’s technocrats. In 2006 – 2007, the Ministry of Education (MOE) and the NCHE set out to awaken the sleeping giant by appointing an Interim Management Team and funding their assessment. The Team reported with success of the possibility of TC’s revival. MOE and NCHE funded an engineering assessment that later led to the establishment of a permanent Team in 2008. The Visitor of the College appointed Dr. Elizabeth Davis-Russell as President, thereby ascribing her place in history as the first female president to TC.

Dr. Davis-Russell immediately assessed the viability of the College within the southeast region of post conflict Liberia. She raised the bar by envisioning an institution having five colleges to provide much needed education, services, contribution to the region, the nation of Liberia, and the world at large. She envisioned the new William V. S. Tubman University (TU).

THE UNIVERSITY SETTING

Tubman University is a suburban-serving institution of higher education and therefore plays a unique role in the City of Harper, and, to some extent, the City of Pleebo’s social and economic fabric. Although primarily serving Maryland County and the Southeastern Region, TU is the second Government-supported University in Liberia, with a mission to meet the higher education demands of a diverse ethnic community having a vast array of ages, backgrounds, career motivations and limited economic resources. That coupled with the reality of the Nation’s poverty, unemployment, and illiteracy rates, TU’s mission and suburban setting makes it unique among Liberia’s Universities.

Mission:

- The mission of Tubman University is to provide quality educational experiences that transform the lives of individuals for worthy service.

Vision:

- Tubman University aspires to be a center of quality and excellence.

Core Values:

- Caring, accessible community characterized by excellence, integrity, civility and ethics.
- Learner-centered and are intellectually engaged;
- Value civic virtue, dependability and trustworthiness.
- Value innovation, adaptability and creativity.

Three-fold focus:

- Local, National & International, with emphasis on the celebration of diversity and the promotion of equal opportunities.

Goals & Objectives:

- Student centered / student driven
- Develop student as life-long learners
- Academic excellence
- Systems of accountability and transparency (automated)
- Attract qualified faculty
- Faculty to conduct research & sponsorship
- Promote environmental friendliness/taking care of the environment
- Renovate buildings on campus
- Create and seeking alternative funding sources to supplement government subsidies

Strategies:

- Building/Establishing a Sustainable Endowment
- Writing Proposals for Grants
- Develop Auxiliary Enterprise Systems
- Hotel and Conference Center
- Develop tourism and quality hospitality in Pleebo, Harper and the County as a whole.
- Farming 500 acres farm in Barrobo (Sales of produce)

A Search for appropriate funding:

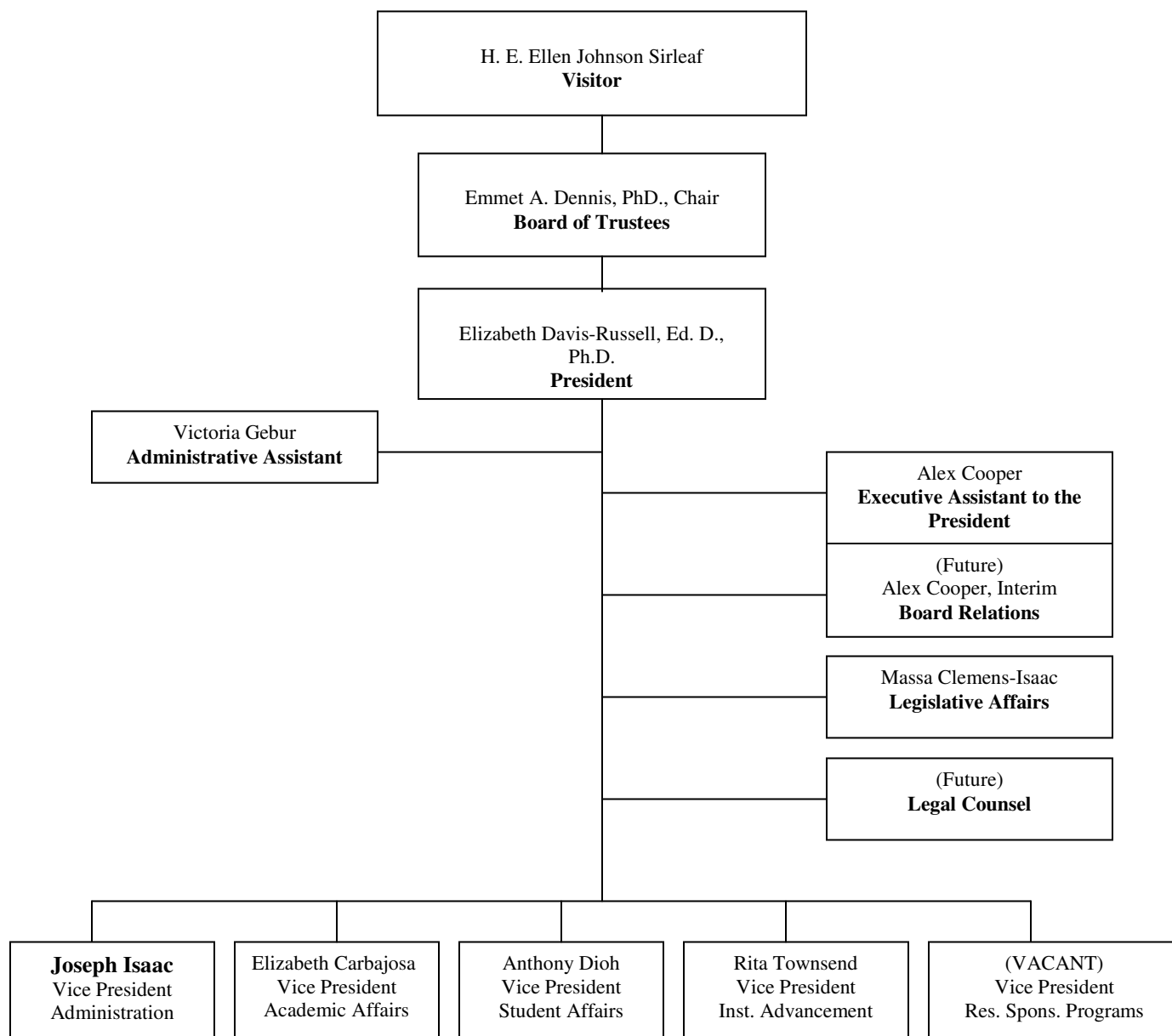
- Area Entrepreneur Project
- Develop alternative energy source on campus (Wind, Solar and Bio mass)
- Community Health – Integrated Village Development Projects
- Construct Sports Complex
- Construct Student Union

GOVERNANCE AND ORGANIZATION

Tubman University's governance is vested in a fifteen (15) member Board of Trustees of the University. Each member of the Board is appointed by the President of Liberia, to a four-year term.

The board is responsible for setting policy for the institution and the selection of the President of the University. The President has overall operational authority and responsibility for Tubman University and as such exercises general supervision of all divisions. The President shares administrative responsibility with Vice-Presidents, each with a broad range of responsibilities for Administration, Academic Affairs, Institutional Advancement, Research and Sponsored Programs and Student Affairs. Faculty and staff also participate in the governance of the University through Standing and Ad hoc Committees, the Faculty Senate, and representation on the University Council.

William V.S. Tubman University Organizational Chart



Division and Departments

Office of the President:

1. President's Office Administration
2. Board Relations
3. University Legal Counsel
4. Legislative Affairs
5. International Education

Administration:

1. Office of the Vice President
2. Comptroller's Office (Finance)
3. Human Resources
4. Procurement
5. Facilities Management
6. Security and Public Safety
7. Information Technology
8. Monrovia Office
9. Auxiliary Enterprise System (AES)
10. Budget Office

Academic Affairs:

1. Office of the Vice President
2. College of Agriculture and Food Science
3. College of Technology
4. College of Health Sciences
5. College of Education
6. College of Management
7. College of Arts and Sciences
8. Academic Support Services
9. Enrollment Services
10. Development and Remedial Programs

Student Affairs:

1. Office of the Vice President
2. Housing and Food Services
3. Athletics and Recreation
4. Career Services
5. Student Health
6. Student Services (Clubs and Activities)
7. Office of Financial Aid
8. Counseling Services

Institutional Advancement:

1. Office of the Vice President
2. Development and Fundraising
3. Alumni Relations
4. Public Relations and Publications
5. University Foundation

Research and Sponsored Programs:

1. Office of the Vice President
2. Planning, Assessment and Institutional Research
3. GOL and County Grants
4. Non-Profit and NGO Initiatives
5. Commercially Sponsored Initiatives
6. International Grants and Sponsored Initiatives

FACULTY AND STAFF

Currently (academic year 2011-2012) TU has 249 full-time faculty, administrative, and support staff. In addition, the University also has 17 part-time faculty and staff members. The following table illustrates the distribution of personnel who are critical to the mission, strategic priorities and learning experience at Tubman University.

Table 1-1: Faculty and Staff

Category	2011		Total
	FT	PT	
Faculty	28	12	40
Administrative/Professional Support	249	5	254
Total Faculty & Staff			294

Data Source: Tubman University HR Office.

Enrollment

	2011		
	FT	PT	Total
Students	611	81	692

Data Source: Tubman University Registrar's Office.

Based on the data above, the current ratio of students to faculty is approximately: 22 to 1

INSTRUCTIONAL PROGRAMS

As a public comprehensive, open admission four and five-year suburban-serving University, TU offers a wide range of Transfer, Career, Continuing Education and Personal Development education programs. These programs lead to Bachelors of Arts, (B.A.), and Bachelors of Science (B Sc.) degrees in specialized areas. The University currently offers 17 Degree Programs in transfer and career areas. Approved programs within the university are:

COLLEGE OF MANAGEMENT & ADMINISTRATION

The College of Management and Administration offers four year degree programs in the following areas of specialization:

- Bachelor of Science in Accounting
- Bachelor of Science in Economics
- Bachelor of Science in Banking and Finance
- Bachelor of Science in Business Administration
- Bachelor of Science in Public Administration
- Bachelor of Science in Management

The College follows a curriculum that incorporates general education courses, specific core courses, and professional courses that fulfill the requirements for the students to qualify for a degree. It adopts innovative Teaching and Learning approaches that incorporate research, outreach, and direct involvement in project preparation, evaluation and management.

Graduates from the College of Management and Public Administration may work as entry level employees in any available businesses and public administration positions in Liberia, or they may pursue graduate degrees and specialized training and advanced studies to acquire skills and quantification in financial analysis for businesses and other management decision-making and research purposes to get better positions in a wider variety of government and private sector organizations.

The curriculum of the college includes some exposure and special coaching on the requirements for the qualifying examinations for graduate level education (Graduate Record Exam); special exams administered by the Liberian Institute of Certified Public Accountants after a brief period of work experience (CPA); and examinations for professional designation of Registered Representative for the securities and insurance industries.

COLLEGE OF AGRICULTURE AND FOOD SCIENCE

The College of Agriculture is the foundation for the dreams of tomorrow. It is where students begin to cultivate a love and passion for agriculture and the environment that leads to life-giving profession.

Currently, the College offers two Degree Programs:

- Bachelor of Science in Agriculture – prepares students for careers in various agricultural disciplines that include: research extension, extension education, agricultural economics and marketing, soil science, agricultural engineering, tropical food production, tropical tree crop production with emphasis in oil palm and rubber culture and wood technology, and animal science.
- Bachelor of Science in Food Science - provides the students with solid academic, technical, and practical knowledge in the food sciences which form a paramount role in the development of the food industry as it develops careers that would addresses food preservation demands, food nutritionists, food inspection, food technology and research.

COLLEGE OF EDUCATION

The mission of the College of Education at Tubman University is to prepare teachers and school administrators to deal with diverse student populations. The College offers four degree programs:

- Bachelor of Science in Primary Education
- Bachelor of Science in Secondary Education
- Bachelor of Science in Guidance & Counseling
- Bachelor of Science in Early Childhood Development

In addition, the college meets MOE requirements for initial teaching certification in: Early Childhood (Pre-primary Education); Primary Education; Secondary Education in the certification areas of Natural Sciences, Mathematics, English and Social Studies; and Guidance Counseling as major areas of concentration. All programs offer candidates the opportunity to experience course work in pedagogy, while encouraging candidates to examine a number of course work in the content areas.

The College is dedicated to providing 21st century education; assisting to increase the number of female teachers into the profession; working collaboratively with education development partners, public schools in the South-eastern region of Liberia and legislators to improve both teacher education and public schools simultaneously; and training marketable world class graduates through Instructional Technology and research based education.

COLLEGE OF ENGINEERING & TECHNOLOGY

The College of Technology is dedicated to empowering future engineers (both males and females) with quality education and creative ability to transform their environment for the ecological service of humanity. It aims to empower graduates as entrepreneurs who are employable, productive, and highly professional in the utilization of the resources for the service of humanity.

With the restoration of the Technology Degree Program and the restructuring the college as Engineering & Technology, the College now offers three (3) four-year Bachelor degree programs in Engineering:

- Bachelor of Science in Civil Engineering
- Bachelor of Science Electrical Engineering
- Bachelor of Science Mechanical Engineering

The College Engineering and Technology aims to prepare students to rebuild Liberia, and help provide service to the global community.

COLLEGE OF HEALTH SCIENCES

The College of Health Sciences' mission is to be the conduit of best educated, compassionate, and caring health professionals in the county, the region, the nation and the global community. It values integrity, advocacy, excellence, lifelong learning, respect for others, and competence. Within such context, it draws upon the insights and experiences that its students, faculty, staff and community have to offer.

The College offers two degree programs:

- Bachelor of Science in Nursing – provides for 8 academic semesters plus 2 vacation sessions of study in general education and professional nursing contents. Students are admitted to the Nursing Program after completing required pre-requisite course work in social, behavioral, health and natural sciences as well as in the humanities. Clinical practice for students is done in conjunction with classroom instruction, and involves placements in local, regional, national and international based agencies, including hospitals, public health arenas, private homes, schools clinics and other agencies.

- Bachelor of Science in Public Health – develops and prepare students to apply knowledge from multiple disciplines for the promotion and protection of the health of the human population, giving due consideration to principles of human rights, cultural and ethnic perspectives that abound in Maryland County, regionally, nationally and globally. Students of the College are admitted to the program of specialization after completing required pre-requisite course work in the social, behavioral, and natural sciences as well as in the humanities.

COLLEGE OF ARTS & SCIENCES

The College of Arts and Sciences is the University's service college that is strongly committed to quality and excellence in teaching, advising, research, and community service. The College aims to provide students across all curricula a solid academic foundation in arts and sciences. It also aims to expose them to reach experiential and service learning in order to transform them not only to have worthy and meaningful lives but to become productive and efficient leasers of the society.

The College of Arts and Sciences offer two challenging baccalaureate degree programs: (1) Bachelor of Science in Music; and (2) Bachelor of Science in Mass Communication.

TU SITE OVERVIEW

T.U. Main Campus is located along the Pleebo-Harper highway close to the City of Harper in Maryland County. Accessible by public transportation, T.U. enjoys a campus that has both a suburban character and physical environment. The campus consists of approximately 16 buildings which occupy about 40% percent of the existing 294 acres site. As one enters through the main gate, one is greeted by the Tubman Monument and Plaza. The Tubman monument plaza should be renovated along with the main gate to put a more dynamic and welcoming face on an important and highly visible node of the University.

Further down from the monument and plaza is the administration building – a modest two-level structure that comes into full view by virtue of its location (the highest elevation) on the campus site. From this location, one gets a panoramic view of almost the entire developed portion of the campus. For the most part, the campus landscape is dominated by savannah grassland of various elevations and matured palm and mango trees. Some of the palm trees appear to have been placed in some type of order, while the mango and other species appear to have been placed randomly.

As one move around the campus site, there is no escaping the sight of the numerous vacant buildings that are in dire need of repair or replacement, or the large electrical cables mounted on series of short poles that transverse the exterior environment of the campus site. Individually or collectively, they detract from the campus visual appeal and beauty.

SITE INFRASTRUCTURE

A visual review and cursory assessment of TU main campus site infrastructure was conducted during several campus visits in May and August of 2011. The assessment team observed and documented the following:

VEHICULAR ACCESS

Two entrance (one main and one secondary) roadways control vehicular traffic to and from the campus. A third (lesser used) entry point, is located at the campus western end from Huffman Station. The Hoffman Station access is in need of rehabilitation along with the construction of a bridge. However, this alternative access is currently being utilized by motor bikes and pedestrians.

PARKING

There are no identified public parking areas or official parking lots on the campus other than the areas immediately adjacent to the Administration building reserved for administrators, and unmarked parking areas in front of each building. A very limited amount of roadside parking occurs adjacent to the Academic Complex and along the road network around the Cafeteria building area.

WATER SYSTEM

Prior to the civil conflict, TU campus relied heavily on the Liberia Water and Sewer Corporation's reservoir located in the City of Harper for its portable water supply needs. Currently the campus is underserved with portable water. Its water supply system consists of several Wells and eleven 500 gallons PVC reservoirs mounted on staff housing units roof tops and elevated concrete platforms around campus. The Administration, Facilities Operations and the Cafeteria buildings currently do not have access to portable water supply.

SANITARY & SEWAGE

TU does not have an integrated sanitary sewer system for the campus. Current sanitary sewer needs are being met via individual septic tank systems.

ELECTRICITY

TU pre-civil war electrical needs were supplied primarily by the Harper branch of the Liberia Electrical Corporation (LEC). TU's current lighting and power needs are being supplied via three generators of the following categories: 100KVA, 30KVA and 50KVA respectively. The campus currently does not have access to electricity on a 24 hours basis. Three off-campus locations are also served by a 10KVA, and two 5KVA generators.

STORM DRAINS & STORM WATER MANAGEMENT

As far as we could tell, Storm Drains and a Storm Water Management system on TU campus are non-existent. However, there are some evidence of previous storm water system that may have been damaged during the civil conflict.

SITE LIGHTING

A fair amount of site lighting exists on campus but major improvements are needed. The eaves of most buildings are used to provide some site lighting.

ROADS & PAVEMENT

The main entrance roadway leads directly to the Tubman Monument Plaza loop which continues as a one-way traffic circulation road, leading to the Administration Building and serves as a link to the campus roadway network. Currently, all roads in the campus roadway network system are dirt/gravel roads and appear to be inefficient. They are all in fair condition. Concrete curbs and gutters are nonexistent. There are no separations between vehicular and pedestrian traffic on campus due to the absence of sidewalks.

HANDICAP ACCESSIBILITY

For the most part, a large percentage of the buildings on campus are not handicap accessible. The Engineering Building, Academic Complex, the Academic Annex and Administration Buildings – all have some type of ramp installed, arguably for handicap accessibility. However, a vast majority of these existing ramps do not appear to conform to handicap accessibility standards, and therefore may have to be removed and replaced in order to make them more handicap compliant.

ATHLETICS FIELDS

A soccer pitch, tennis and basketball courts exist on campus next to Tubman Hall. They are in a very deplorable state and need to be relocated to a more suitable campus location.

EXISTING FACILITIES

Building Designation:	Academic Annex (5 adjoining buildings)
Number of Floors:	1
Gross Building Area (GSF):	Approx. 17,066 Sq. ft.
Year Constructed:	1970
Contains:	Classrooms, faculty offices, computer lab, rest rooms, etc.
General Condition:	Good
Adequacy of Space:	Inadequate

ARCHITECTURAL, GENERAL

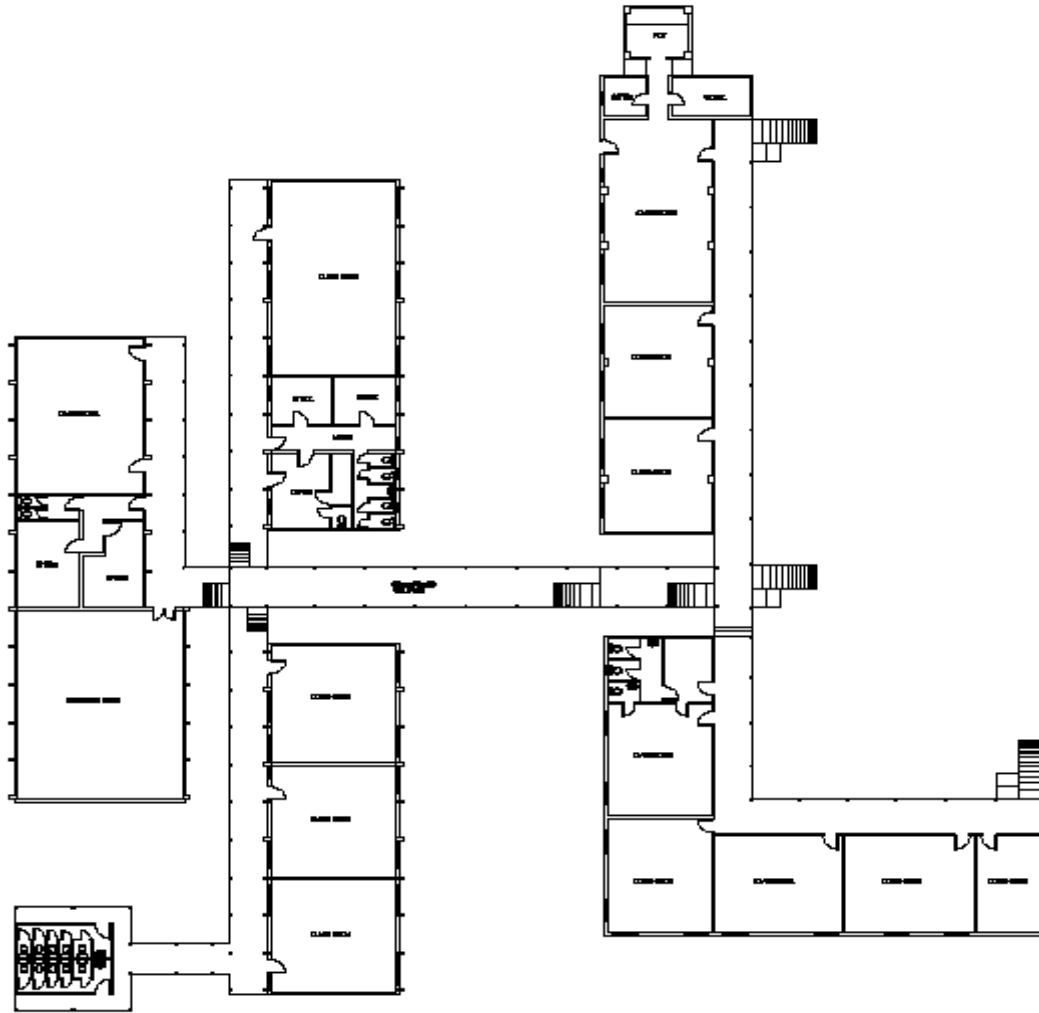
This Annex is comprised of a series of one level, concrete block structures, interconnected by covered porches and walkways. The interior spaces are devoted to general classrooms, a computer lab and faculty offices. Lacking a university character, the buildings are more reminiscent of a rural elementary school than a higher education building. Additionally, its location poses a potential danger for pedestrians crossing Pleebo-Harper Highway.

Plumbing:

The building is currently served by an independent well and reservoir system along with an independent septic tank system. The entire system is minimally functional.

Electrical:

The Electrical systems were upgraded during the recent renovation work. Power supply for the Annex is serviced from the university's 3 generators on the main campus.



ACADEMIC ANNEX BLDGS.
FLOOR PLAN



NORTH VIEW



NORTH-WEST VIEW

Building Designation:	Academic Complex
Number of Floors:	1
Gross Building Area :	29,700 Sq. ft.
Year Constructed:	1970
Renovations:	2011
Contains:	Faculty offices, classrooms, main gallery and library, computer, science and engineering labs, etc.
General Condition:	Good
Adequacy of Space:	Adequate, with exceptions of lab space

ARCHITECTURAL, GENERAL

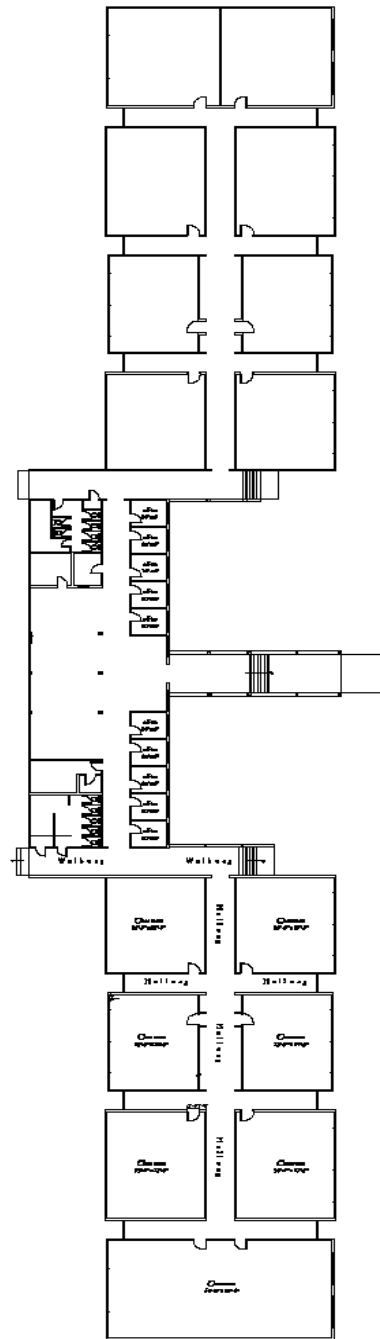
This building is the primary academic building on campus and also provides most of the current class room spaces. The façade is painted concrete block walls and is one of the most recently-renovated and one of the more attractive buildings of the campus. The classrooms and labs are in good condition and are, for the most part, in need of being appropriately equipped.

Plumbing:

The building is currently served by an independent well and reservoir system along with an independent septic tank system. The entire system is minimally functional.

Electrical:

The Electrical systems were upgraded during the recently renovation work.



ACADEMIC COMPLEX.

FLOOR PLAN



FRONT VIEW



SOUTH VIEW

Building Designation:	Administration Building
Number of Floors:	2
Gross Building Area :	11,455 Sq. ft
Year Constructed:	1970
Renovations:	2009
Contains:	Offices for Academic Affairs, Student Affairs, HR, Finance, Institutional Advancement, Administration and Office of the President.
General Condition:	Good
Adequacy of Space:	Inadequate

ARCHITECTURAL, GENERAL

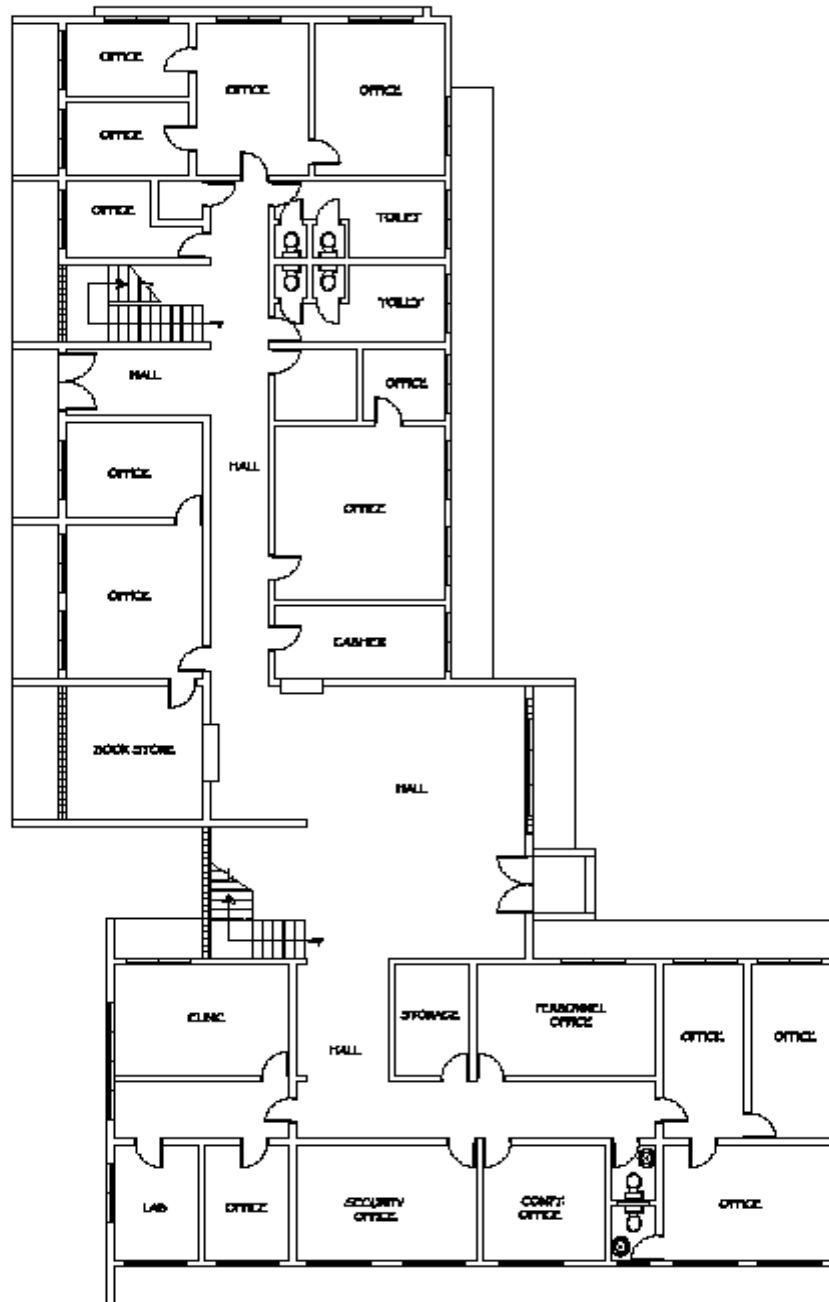
This building serves, as the central focus of the campus and the hub of campus operation. The building's main entrance fronts the campus main open space and the flow of traffic from the campus main entrance gate. The interior spaces are bright and functional and are in good condition but the façade does little to flatter the image of the University. The large windows in the facades are a substantial asset to the building that should be capitalized on and enhanced. These windows both admit generous amounts of light and air into the interior.

Plumbing:

Currently this building is without pipe borne water.

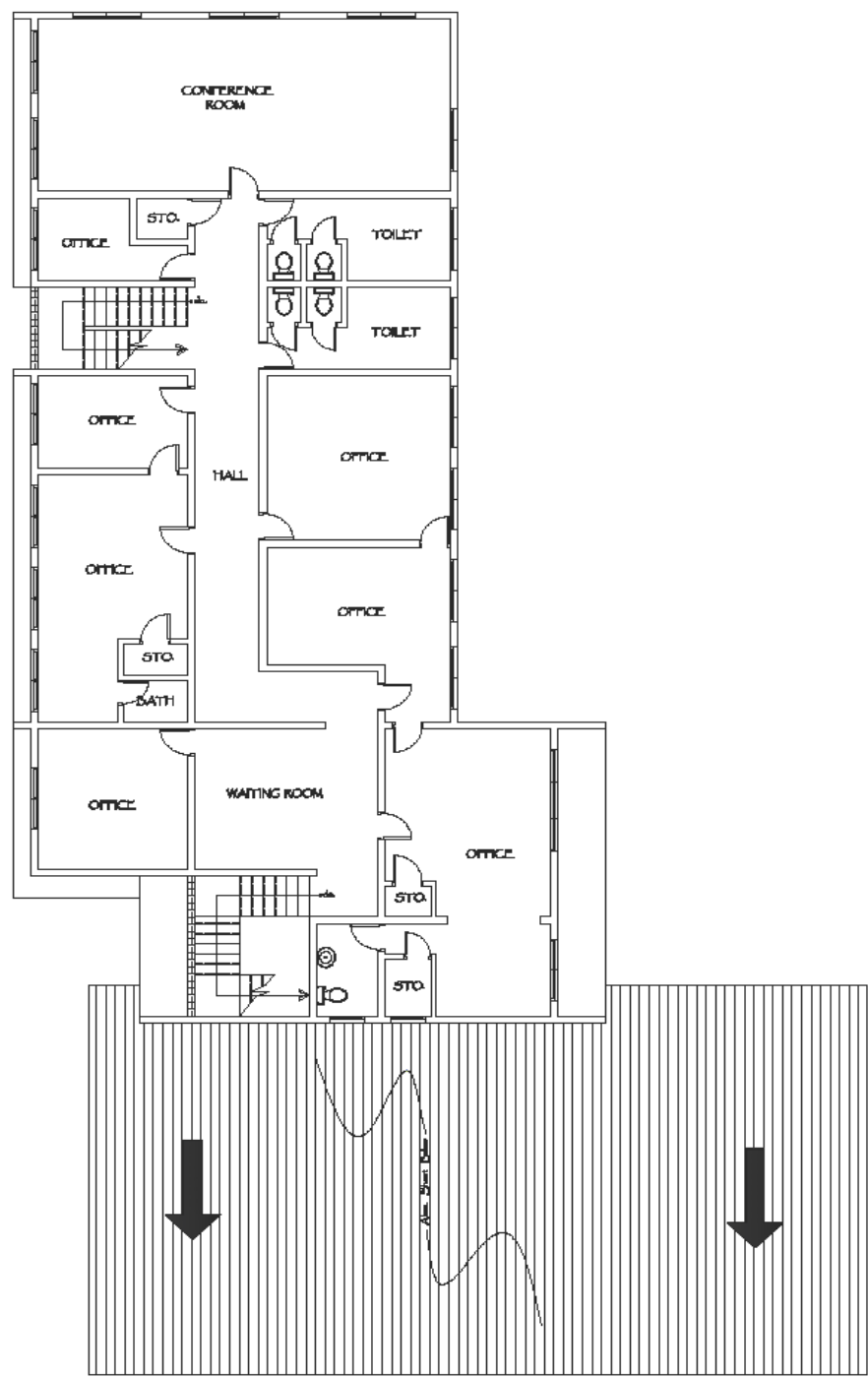
Electrical:

The Electrical Systems appeared to have been upgraded.



ADMINISTRATION BLDG.

FIRST FLOOR PLAN



ADMINISTRATION BLDG.

SECOND FLOOR PLAN



SOUTH VIEW



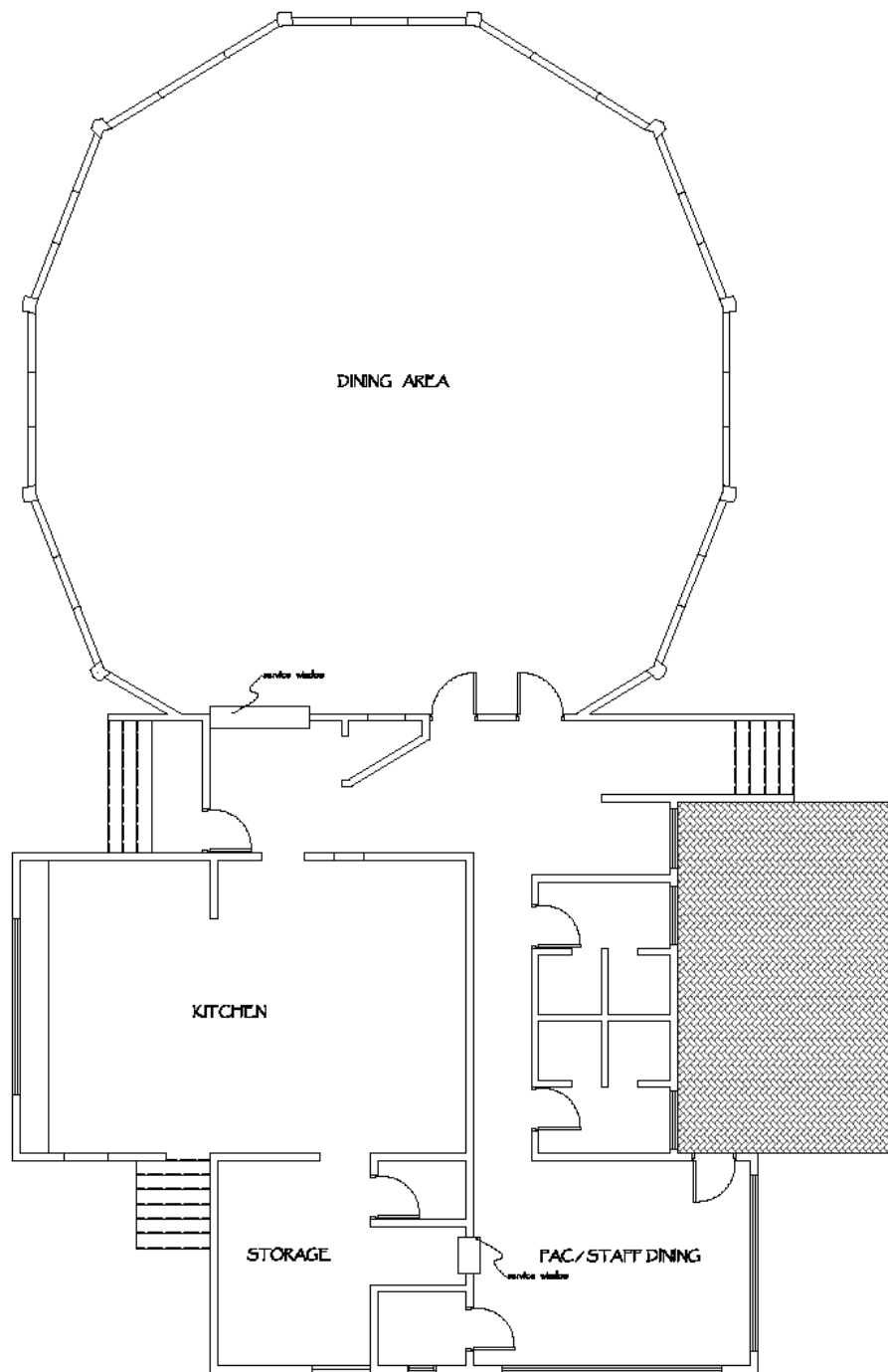
WEST VIEW

Building Designation:	Cafeteria Building
Number of Floors:	1
Gross Building Area:	3,652 Sq. ft
Year Constructed:	1970
Renovations:	2011
Contains:	Indoors and outdoors dinning spaces, kitchen, rest rooms, etc.
General Condition:	Good
Adequacy of Space:	Appears to be adequate

ARCHITECTURAL, GENERAL

This building is currently undergoing renovation. Upon completion, it will offer dining services to students and staff, with indoor and outdoor dining areas.

Plumbing:	TBD
Electrical:	Scheduled to be upgraded



CAFETERIA BLDG.

FLOOR PLAN



SOUTH-WEST VIEW



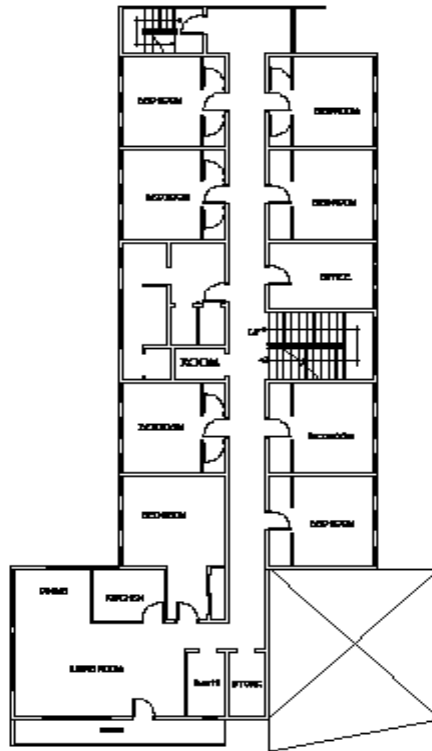
NORTH VIEW

Building Designation:	Residence Hall
Number of Floors:	3
Gross Building Area:	12,112 Sq. ft.
Year Constructed:	1970
Renovations:	Needs Renovation
Contains:	Vacant Shell
General Condition:	Structurally Sound
Adequacy of Space:	TBD

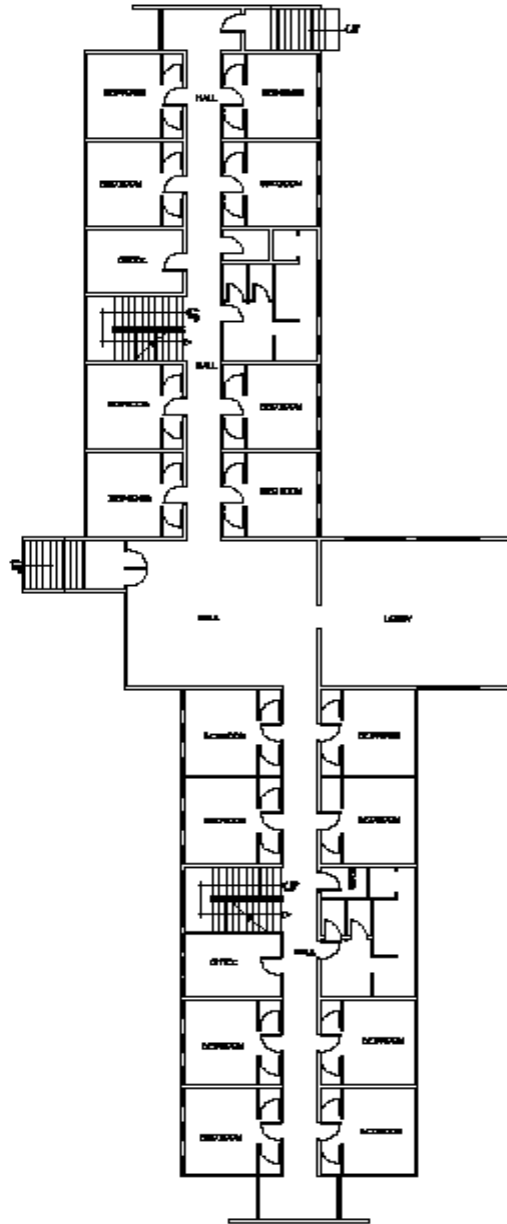
ARCHITECTURAL, GENERAL

An existing three level reinforced concrete & blocks structure with floor slabs earmarked for renovation.

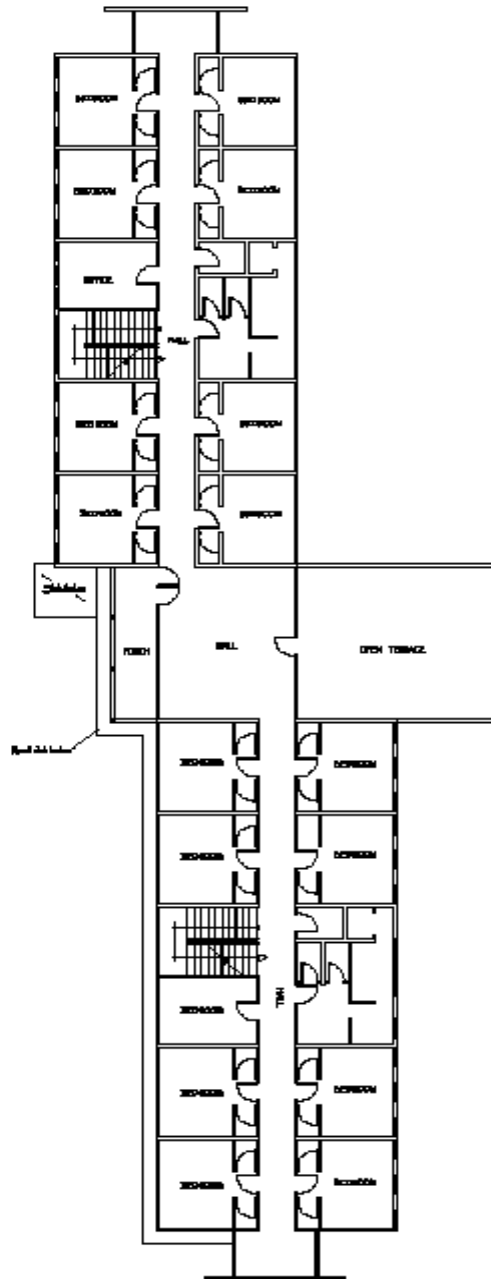
Plumbing:	TBD
Electrical:	TBD



RESIDENCE HALL
FIRST LEVEL FLOOR PLAN



RESIDENCE HALL
SECOND LEVEL FLOOR PLAN



RESIDENCE HALL
THIRD LEVEL FLOOR PLAN
35



NORTH VIEW



SOUTH VIEW

Building Designation:	Residences (5 Different Floor Plans)
Number of Floors:	1 level each
Gross Building Area:	Approx. 18,926 Sq. ft.
Year Constructed:	1972
Renovations:	2009
Contains:	Bedrooms, baths, living, dining, kitchen, porches, etc.
General Condition:	Good
Adequacy of Space:	Adequate

ARCHITECTURAL, GENERAL

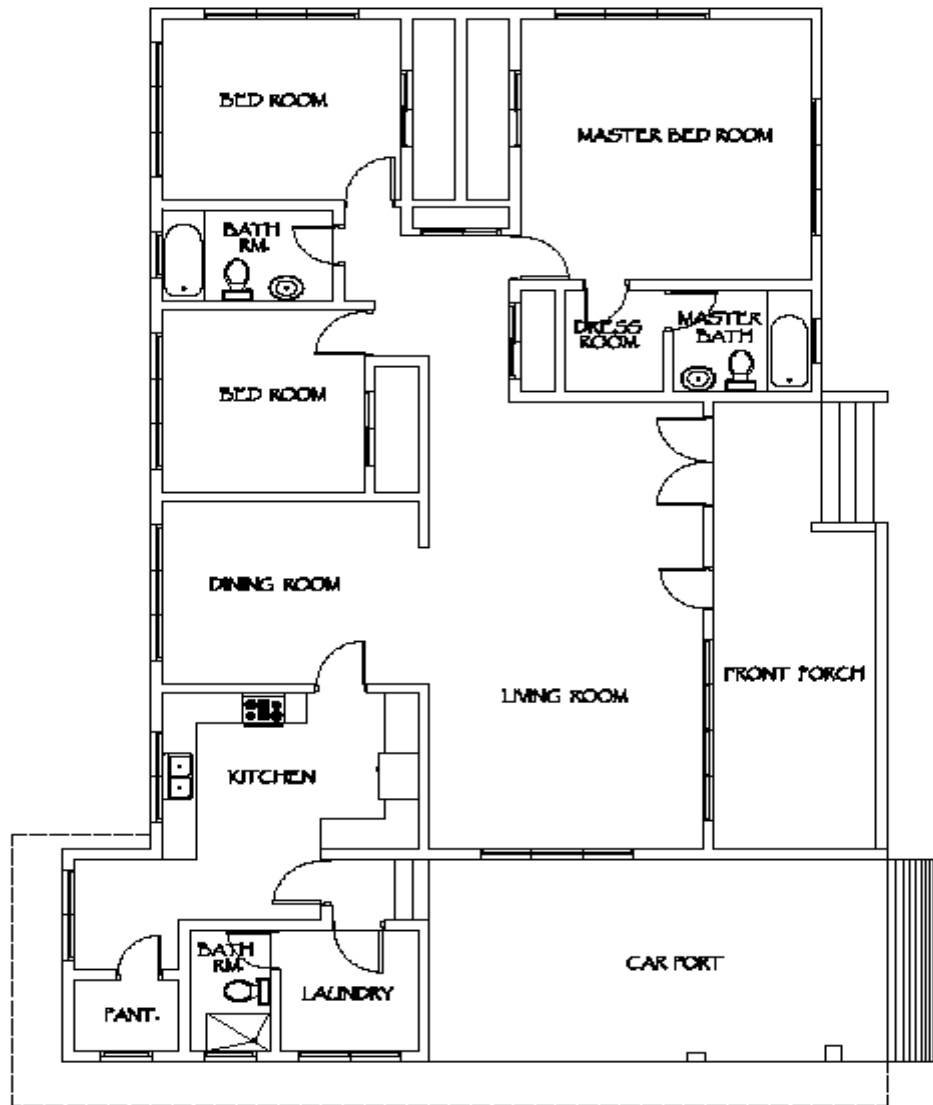
These buildings house the University President, Vice Presidents and Deans. They are two and three bedrooms single units as well as duplexes. Nicely renovated, their facades are composed of painted concrete block walls. However, the black PVC reservoirs mounted on roof tops in the administrative quarters detracts from their visual appeal.

Plumbing:

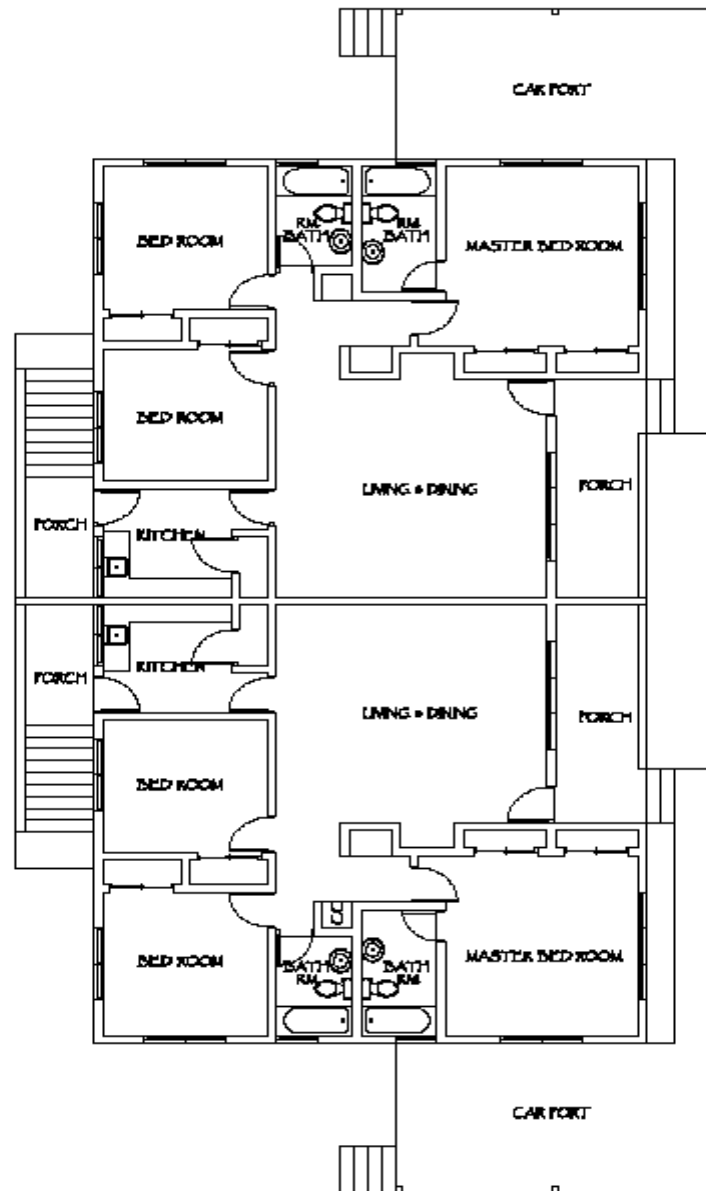
Well water and reservoir systems along with individual building septic tank systems.

Electrical:

The electrical Systems were upgraded during recent renovation work.

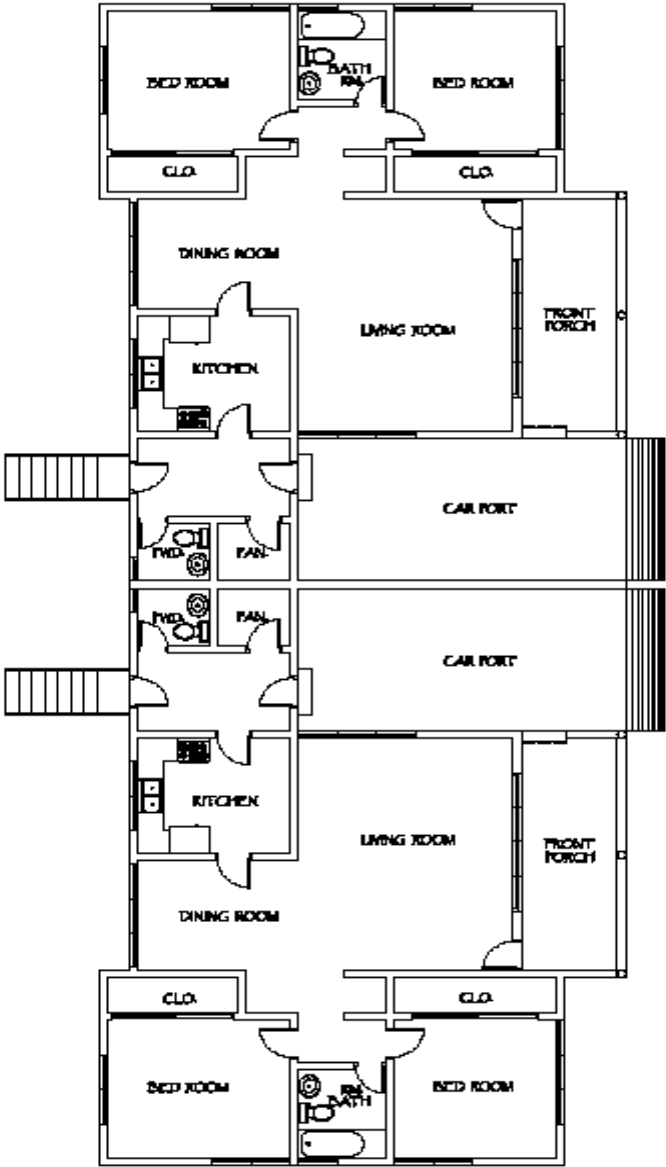


RESIDENCE -MODEL 1
FLOOR PLAN



RESIDENCE – MODEL 2

FLOOR PLAN



RESIDENCE – MODEL 3
FLOOR PLAN



MODEL 1 – FRONT VIEW



MODEL 2 – FRONT & SIDE VIEW



MODEL 3 – FRONT VIEW



MODEL 4 – FRONT VIEW



MODEL 5 – SIDE VIEW



MODEL 5 FRONT VIEW

Building Designation:	Tubman Hall
Number of Floors:	1
Gross Building Area:	32,400 Sq. ft.
General Condition:	Good
Year Constructed:	1969
Renovations:	2011
Contains:	Sleeping areas, baths, kitchenette, front and rear patios, laundry rooms, etc.
Adequacy of Space:	Inadequate for faculty members with Family.

ARCHITECTURAL, GENERAL

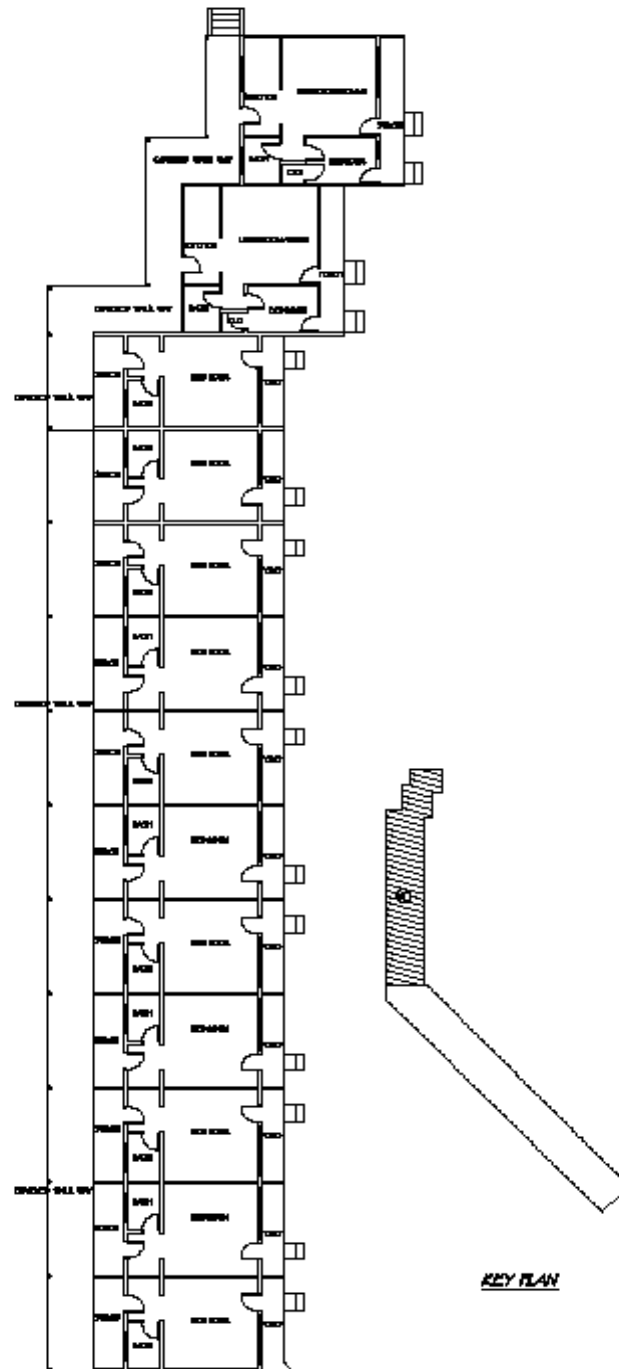
This building accommodates faculty members in what was once intended to be the women dormitory. Each unit is a small studio adjacent to each other in linear fashion. They were designed to have private entrances and, front and rear patios. The facade is painted concrete block walls, and it is one of the most recently-renovated and more attractive buildings on campus.

Plumbing:

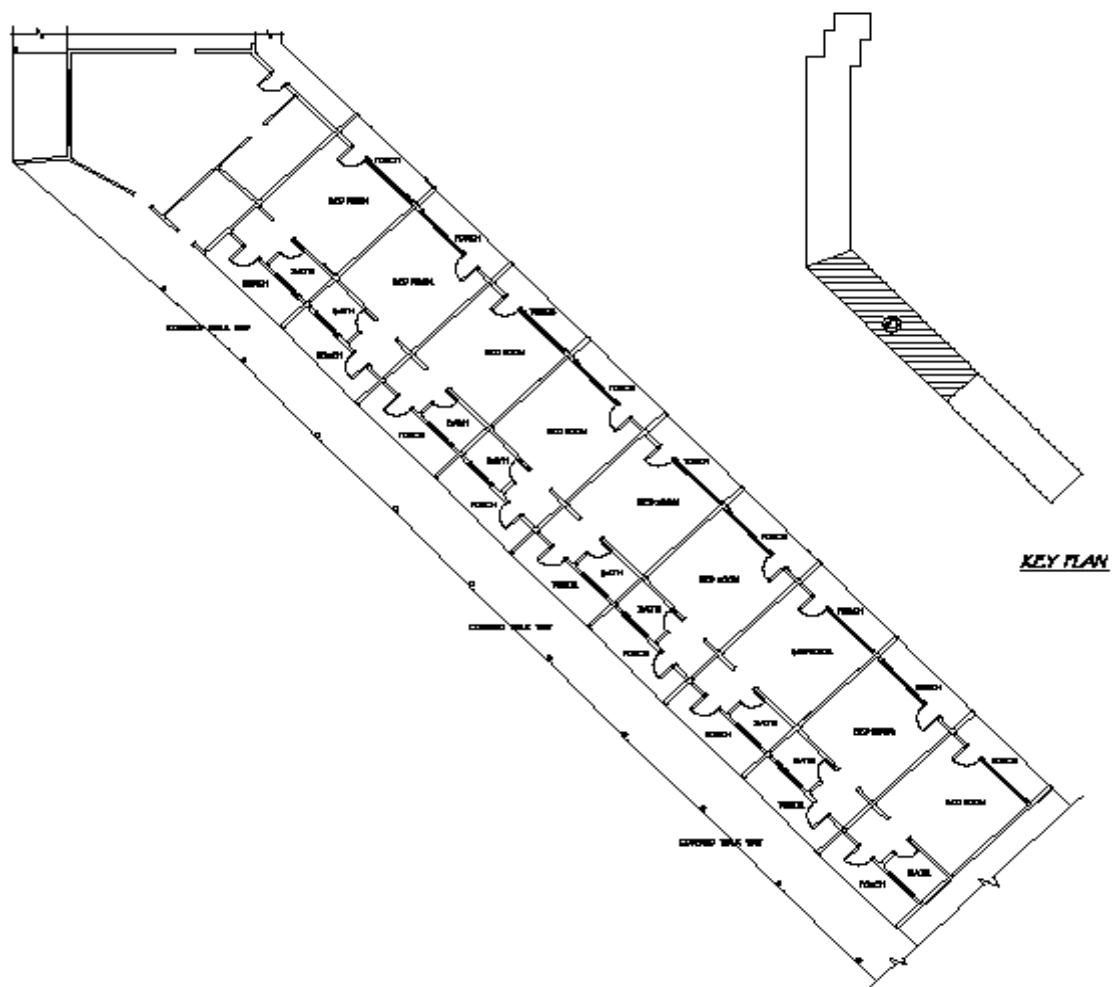
The building is currently served by two Wells and hand pumps, along with reservoirs mounted on platforms. It also has an independent septic tank system. The entire system is minimally functional.

Electrical:

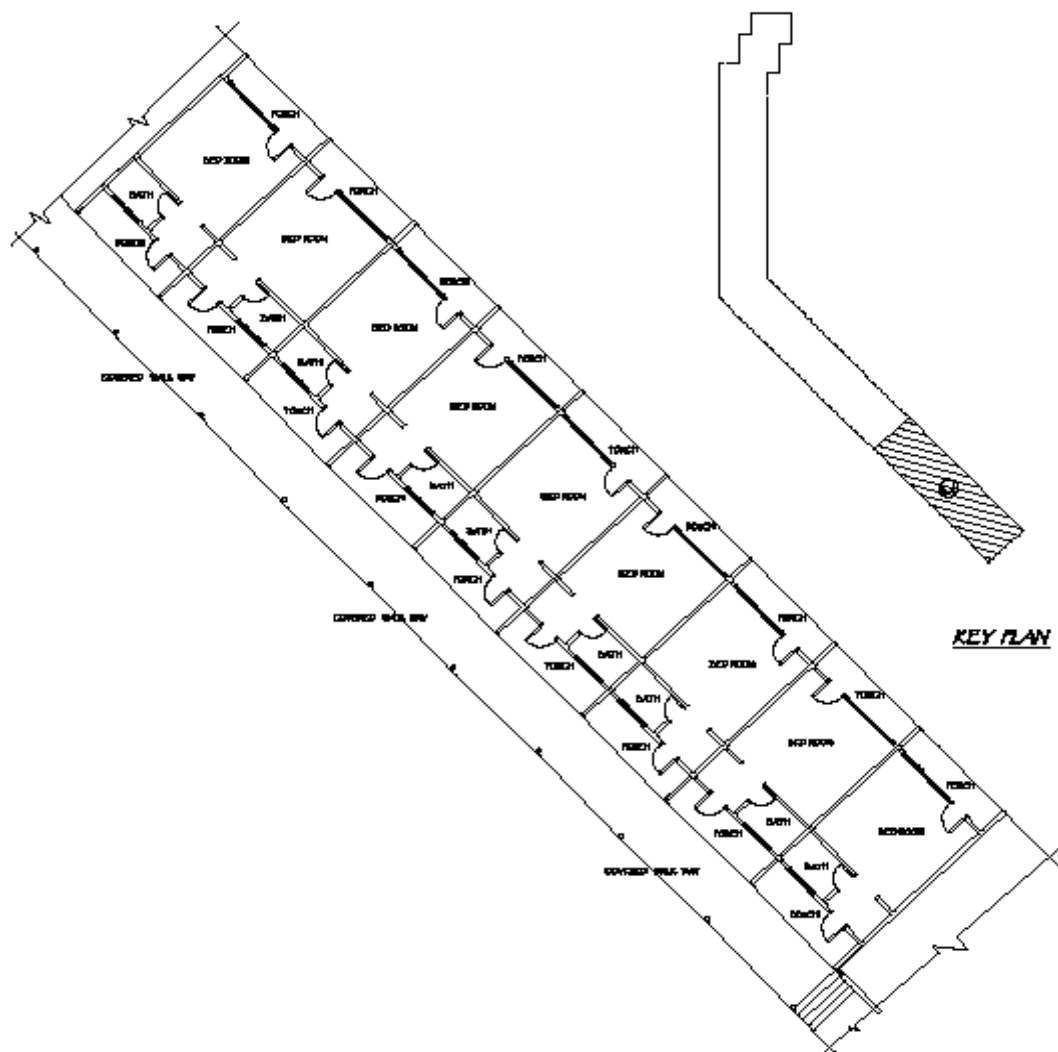
The Electrical systems were upgraded during the recent renovation work. No major deficiencies have been reported.



TUBMAN HALL
 PARTIAL FLOOR PLAN. SECTION "A"
 45



TUBMAN HALL
PARTIAL FLOOR PLAN. SECTION "B"



TUBMAN HALL
PARTIAL FLOOR PLAN, SECTION "C"



FRONT VIEW



FRONT VIEW

Building Designation:	Dean's Building
Number of Floors:	1
Gross Building Area:	4,000 sq. Ft
Year Constructed:	1981 (Acquired)
Contains:	Existing Shell
General Condition:	Poor, structurally deficient
Adequacy of Space:	TBD

ARCHITECTURAL, GENERAL

Former Dean's Building to be converted into a Campus Guest House.



Building Designation: Existing Clinic Shell

Number of Floors:

Gross Building Area: 3,360 sq. Ft.

Year Constructed: Not Available

Contains: Existing Shell

General Condition:

Adequacy of Space: TBD

ARCHITECTURAL, GENERAL

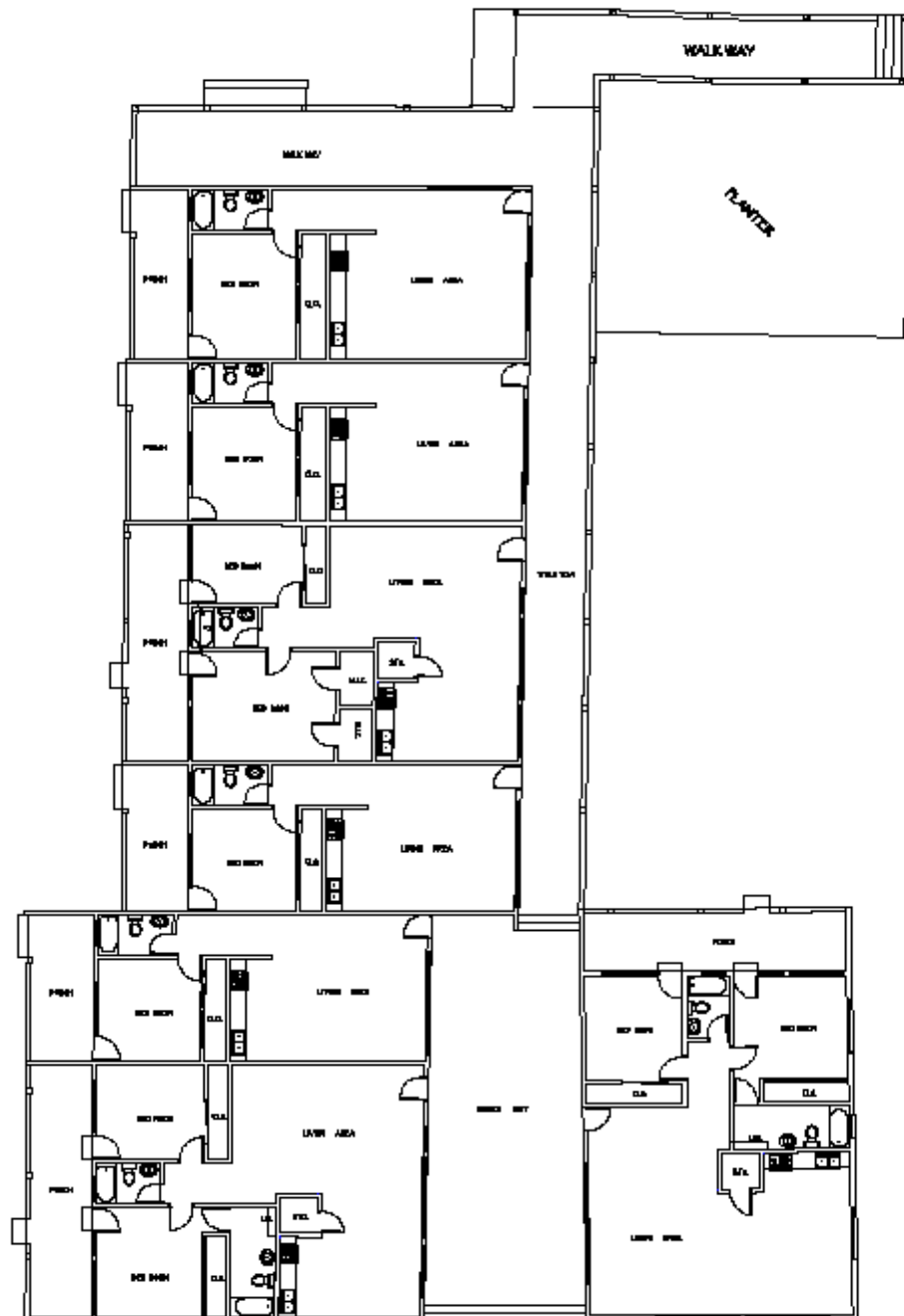
Existing shell of Clinic to be renovated into a Rubber Wood Technology Center.

Building Designation:	Tubman Hall Annex
Number of Floors:	1
Gross Building Area:	12,432 Sq. ft.
Year Constructed:	1969
Renovations:	TBD
Contains:	Former Student Center
General Condition:	Structurally Sound
Adequacy of Space:	TBD

ARCHITECTURAL, GENERAL

An existing reinforced concrete and block walls structure to be converted into one & two bedrooms faculty residence.

Plumbing:	TBD
Electrical:	TBD



TUBMAN HALL ANNEX

FLOOR PLAN



NORTH VIEW

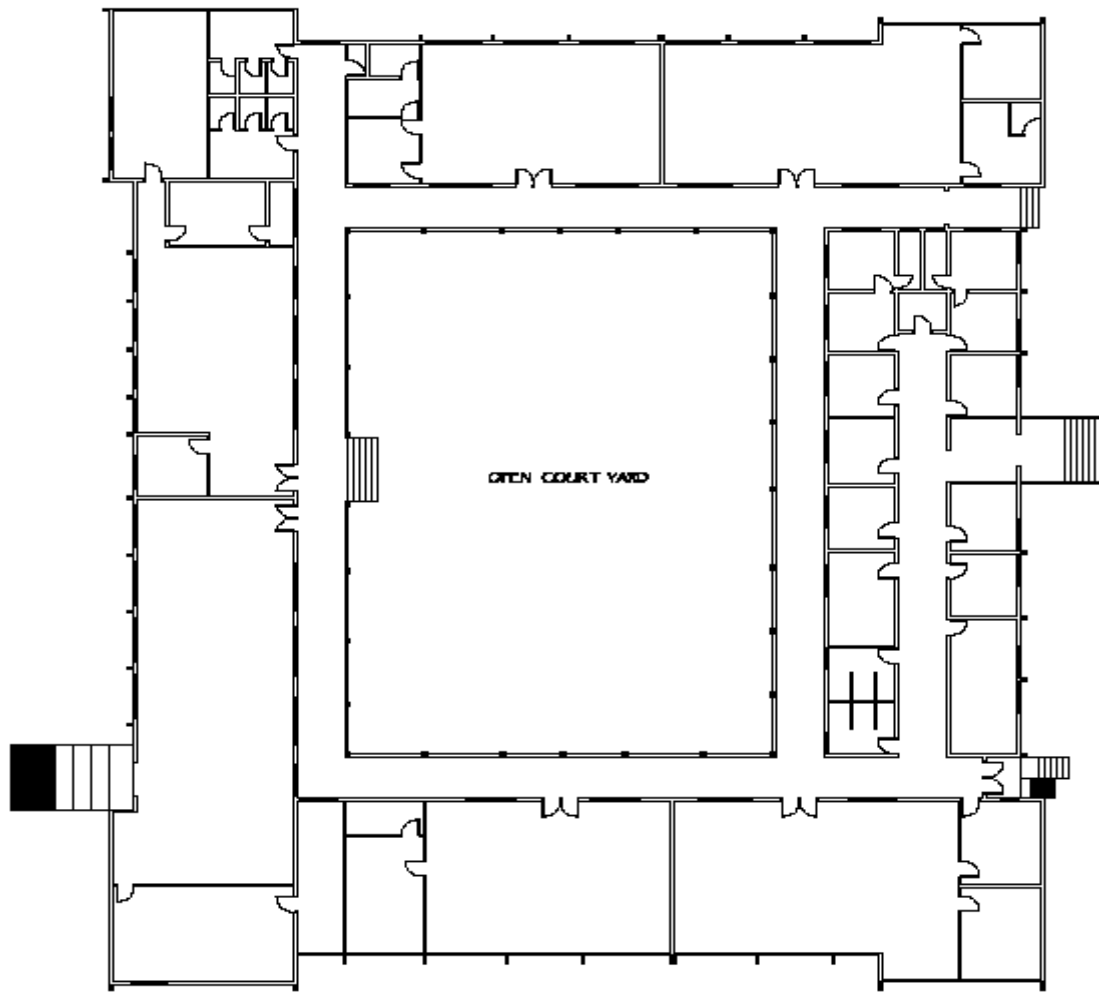


	EAST VIEW
Building Designation:	Engineering Building
Number of Floors:	1
Gross Building Area:	25,073 Sq. ft.
Year Constructed:	1983
Renovations:	TBD
Contains:	Vacant Shell
General Condition:	Appears to be Structurally Sound
Adequacy of Space:	TBD

ARCHITECTURAL, GENERAL

An existing reinforced concrete and block walls structure to be converted into a two level College of Engineering & Technology building.

Plumbing:	TBD
Electrical:	TBD



ENGINEERING BLDG.
FLOOR PLAN



NORTH – EAST VIEW



INTERIOR VIEW

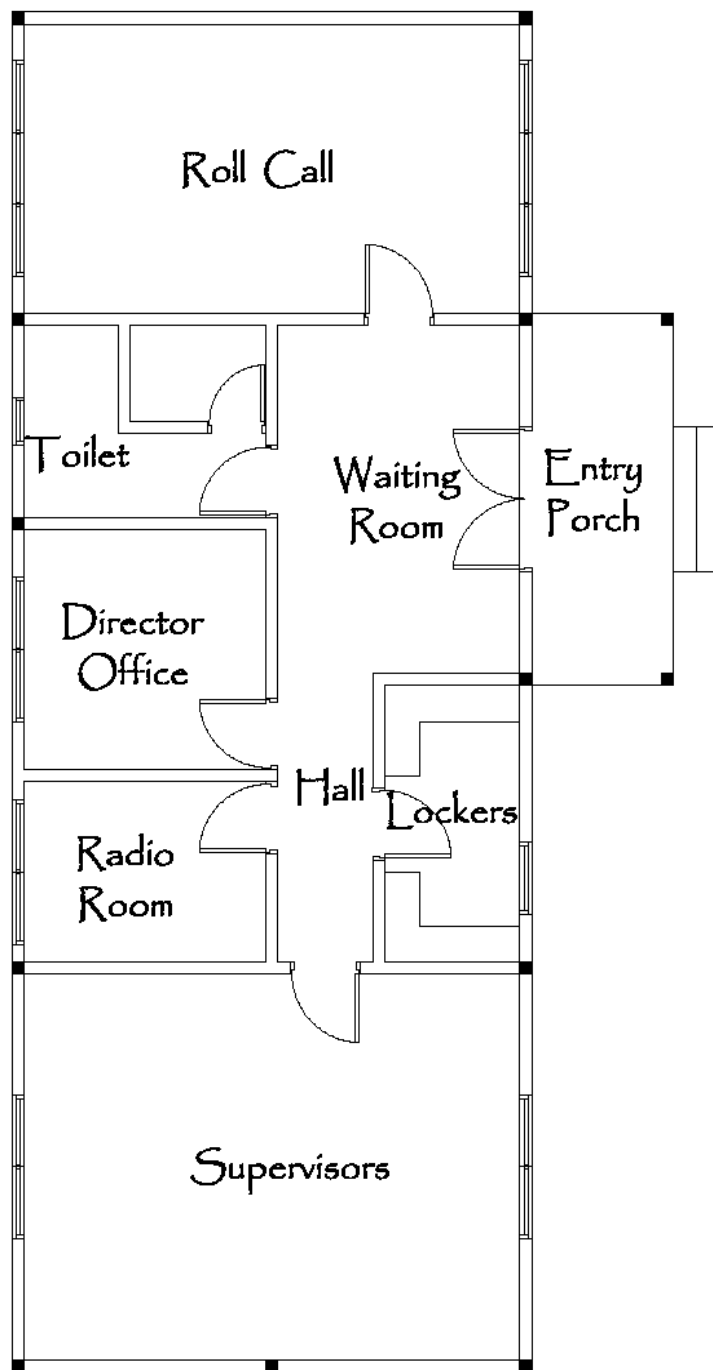
Building Designation:	Proposed Security Command Center .
Number of Floors:	1
Gross Building Area:	650 sq. Ft
Year Constructed:	Not Available
Contains:	Former Generator House
General Condition:	TBD
Adequacy of Space:	TBD

ARCHITECTURAL, GENERAL

Former Generator House expanded to accommodate the University Security Force and to serve as Security Command Center.



FRONT VIEW

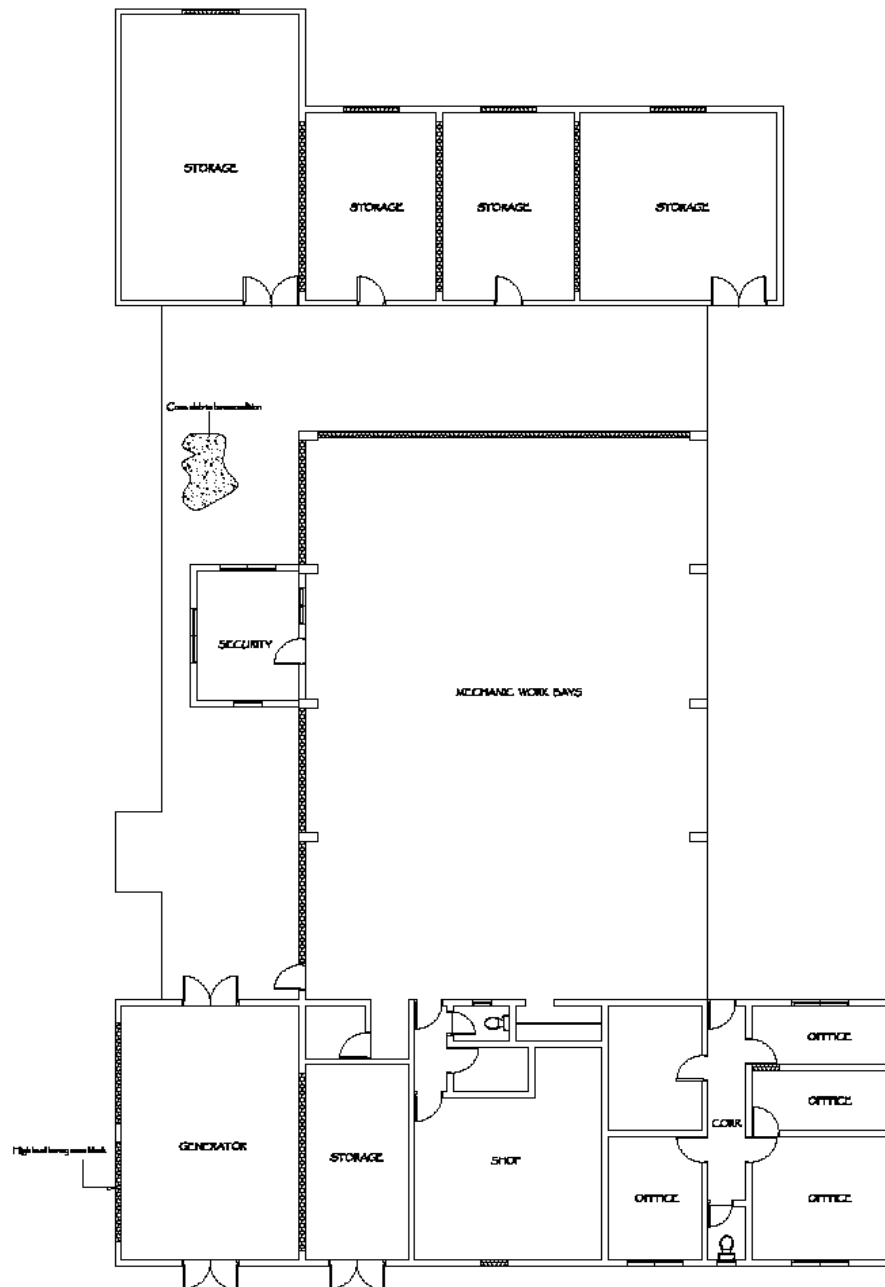


SECURITY COMMAND CENTER
FLOOR PLAN

Building Designation:	Facilities Operations Office
Number of Floors:	1
Gross Building Area:	7,697 sq. Ft.
Year Constructed:	Not Available
Renovations:	
Contains:	Offices, garage operations, toilets, etc.
General Condition:	Fair to Good
Adequacy of Space:	Inadequate

ARCHITECTURAL, GENERAL

This building houses the Campus facilities operations and also serves as the Fleet Maintenance Facility. Its facades are composed of painted concrete block walls.



FACILITIES OPERATIONS OFFICE.

FLOOR PLAN



SOUTH VIEW



SOUTH - WEST VIEW

Building Designation:	HR/Facilities Bldg. Foundation
Number of Floors:	TBD
Gross Building Area :	2,560 sq. Ft.
Year Constructed:	Not Available
Contains:	Existing Foundation
General Condition:	TBD
Adequacy of Space:	TBD

ARCHITECTURAL, GENERAL

Existing Foundation to be converted to the University's Administrative Services Building.

Building Designation: Old Agriculture Bldg.

Number of Floors:

Gross Building Area: 1,500 sq. Ft.

Year Constructed: Not Available

Contains:

General Condition: TBD

Adequacy of Space: TBD

ARCHITECTURAL, GENERAL

FACTORS THAT COULD IMPEDE PROGRESS.

As the only suburban University in Maryland and in the Southeastern region of Liberia, TU is faced with challenges and opportunities that are unique to the institution. TU has special needs made necessary in large part due to an average annual growth rate of 62% in two years. If the University is to keep pace with this annual growth rate, the following acute needs must be addressed in the short term:

1. Additional classrooms and lab spaces.
2. Additional faculty, staff and students housing space.
3. (24 hrs.) Electrical power supply.
4. The need to expand portable water supply to every building on campus.
5. The need to secure the requisite funding to:
 - Underwrite various renovation and capital projects.
 - Attract qualified instructors and staff.
 - Purchase appropriate lab equipment and improve the University's IT Program.
 - Well equipped labs and equipment for Engineering Programs.

Failure to address these needs could have an adverse impact on the University's anticipated growth and development in the short term, and defeat the purpose for which the University was established.

The Degree to which the University is meeting its responsibilities:

The University, for the most part, is attempting to address some of the many acute needs in the following ways:

- Has embarked upon an aggressive renovation program of existing facilities; and has identified new capital projects to commence within the confines of available financial resources.
- The University is making a concerted effort to increase classroom space and create new housing units on campus.
- Have plans to purchase a 150 KVA generator to augment the campus current electrical supply.
- Have plans to rehabilitate the existing 5,000 gallons concrete reservoir located behind the administration building as an additional portable water source.
- Has made a commitment to finding Alternative Renewable Energy Sources which is evident by the recent commissioning of a renewable energy study for TU.
- Periodically conducts Job/Recruitment Fairs for both faculty and staff.
- Aggressively pursuing avenues to secure donors funding in support of anticipated growth and expansion; to augment Government of Liberia funding.

- Established an Auxiliary Enterprise System (AES) to explore avenues where the university can generate sustained income from business ventures, whether it is through:
 - a. The tourism and hospitality industry (hotel and conference center)
 - b. The sale of farming produce (500 acres Barrobo Farm Land)
 - c. Sale of Rubber and plastic products (Rubber Technology Program), etc.
- Establishment of an Endowment Fund; with initial funding from employees
- Writing Proposals for Research Grants and Sponsorships, etc.

Anticipated Changes in Programs and Services of the University

The following Programs have the potential to affect facilities and people it serves:

- a. The University anticipated “Distance Learning Program” will require at least a well equipped Teleconferencing Room and Improved Computer Information Technology Services (up to date hardware and software equipment, instructional programs, internet, audio/visual, a dedicated server, etc.) that lends itself to facilitating and supporting this endeavor.
- b. T U’s desire to participate in “Cutting Edge Research” will require recruiting more qualified faculty to conduct research.
- c. The introduction / addition of the university “Evening Classes” program will require the availability of instructors and staff at all times, 24/7 campus electricity along with an increase in fuel supply.
- d. T U proposed post “Graduate Program” will require more classrooms and lab spaces, more qualified faculty and staff, more faculty and students housing and at the very least, one state-of-the-art Learning Resource Center / Electronic Library System.
- e. The “Lab School Program / Project” will impact the College of Education resources and budget in more ways than one.
- f.. The University’s proposed Child Development Center to support the ECD Program will require faculty, staff, facilities and equipment.

Interrelationship between the University Facilities Master Plan and Maryland County Development Plans.

Part of Maryland County’s Development Plan proposes seeking collaboration / partnerships with Tubman University in developing a five year development plan for the County. The plan shall include:

- a. Agriculture Development
 - Increase Food Production
- b. Health Care Development

- Building more Clinics and Hospitals
- c. Business Development
- d. Tourism and Hospitality Development
 - Maintain Beaches
 - Construction of Hotels and Guest Houses
- e. Development of Sports in the County
 - Construction of Sports Complexes
- f. Human Resource Development
 - Trained Teachers, Nurses, other Health Professionals, Technicians, Engineers and Agriculturist that will be beneficial to the County
- g. Restoration of Electricity and Portable Water Supply in the City of Harper as well as entire the County
 - Hydro Power System
- h. Garbage Collection / Disposal System
- i. Central Sewage System; Storm Water management system
- j. Improve Transportation System
 - Between the cities of Pleebo and Harper
 - To and from the County via Road, Air and Sea
- k. Decentralization of Tubman University – taking the university to the community
- l. Develop Tax Collection Structures
- m. Conduct Study to Improve Revenue Generation
- n. Develop Internet Access in the County, etc.

INSTITUTIONAL EVALUATION

This section of the master plan focuses on the analysis of the University Overview and Institutional Background Data report presented in deliverable #1. Existing facilities, including land parcels, buildings, current developments, expansions and/or acquisitions, and assets that need to be preserved and/or enhanced are discussed in this section. In addition, this Institutional Evaluation section discusses the University's infrastructural liabilities that need to be corrected and/or removed

The base-year for this facilities master plan is First Semester (F) 2012. The University's department of facilities management provided the existing space inventory based upon the completion of a campus-wide space survey. In addition, the facilities master planner conducted a comprehensive space inventory to ascertain the University's learning space conditions and sufficiency. Physical walkthroughs were conducted to confirm existing space utilization/occupant data and to record any changes compared to existing drawings.

Tubman University's facilities master plan provides a 10-year development framework for the University's learning environment, with a focus on enhancing, upgrading and expanding academic programs and facilities, simultaneous effort to pursue satellite locations throughout the City of Harper, Pleebo, Monrovia, and elsewhere, based upon demographic and industry data projections.

SITE ANALYSIS

Open Space: The University's open space shall create a user-friendly link between the campus forms and functions. Open space should provide an extension of the total University experience. It shall be designed to create an academic village without walls transforming the learning environment to support learning anytime and anyplace. Development solutions shall encourage a University campus that is packed with pockets of open space and motivate students to use the outdoor environment. The University's campus shall provide adequacy of open space with the following recommendations:

- a. Campus buildings should be enhanced by court yards.
- b. Each open space should integrate leisure space with learning opportunities.
- c. Open space should include parks, walking trails, fields and bike trails.
- d. Open space should be enhanced by segregated sports and recreational areas.
- e. The creation of University open space shall consider sustainable design solutions.

Land Use: The University's land use activities are not based on compatibility of adjacent space and buildings and do not help to establish a general pattern for future use nor the development of specific areas for specific periods. Land use plans should be developed for each development activity to provide additional level of direction, and should be referred to when considering any proposals for development on the University campus in addition to any future land use policies.

The following land uses shall be permitted in all designations on the University's campuses, subject to any identified conditions, except for Significant Environmental Designations that may be required in the future:

- a. **Buildings and Structures:** Buildings and structures, the replacement and expansion of existing uses of buildings and structures, as well as additions and modifications to existing uses of buildings and structures, including the addition of accessory uses that are in support of the University's teaching, learning, research and community service mission shall be subject to this master plan. In addition, the expansion of existing uses of buildings and structures owned and/or operated by the University and its subsidiaries shall be permitted, subject to this master plan.
- b. **Waste disposal Sites:** Waste disposal sites and their areas of influence shall be designated in accordance with this master plan. The prior use of lands for the disposal of wastes may have long term effects on the future uses of University lands; therefore potential impact must be taken into account in evaluating any proposal for the development of waste disposal areas.
- c. **Agricultural Uses:** The purpose of the Agricultural Area Designation on the University properties is to protect prime agricultural lands and to provide the maximum level of support to the agricultural resources of the University. Uses accessory to and related to agriculture and University farming activities shall only be permitted on the campus, in accordance with academic programs and University development policies. In the event of a conflict between this master plan and the provisions of a University policy, the University policy shall prevail.
- d. **Electric Power Facilities:** All electric power facilities, including power houses, transmission lines, transformer station and distributing stations shall generally be discouraged in the University's Residential Area Designations.
- e. **Minimum Distance:** All new developments at the University shall, at a minimum, comply with the minimum distance of 100 feet between buildings and structures. However, in evaluating a development plan, the University shall take into consideration not only the impacts on existing operations, but also impacts on the potential for the expansion of such operations, to ensure that maximum flexibility is provided to the operations for future expansion.
- f. **Recreation and Sporting Facilities:** Currently, the University does not have recreational or sporting activities building; however, the following outdoor facilities are inappropriately located near Tubman Hall, a faculty housing building: soccer field, basketball court, and volleyball court. Future sporting and recreational facilities shall be centralized in accordance to this master plan.

- g. **Parking and Circulation:** Current layout of the campus does not separate service and delivery vehicles from regular vehicles and pedestrians. The two entrances to the campus are intended for all vehicles and pedestrian use, regardless of purpose and size of vehicle.

Before each new construction is approved, a comprehensive site analysis, including the adequacy of buildings and open space and the compatibility of such adjacent land uses shall be conducted. In addition, the adequacy and condition of parking, ingress, egress, utilities systems and the presence of any physical limitations that may impede the delivery of services to the facility shall be reviewed by the architect, engineer or planner.

- h. **Utilities Systems:** The University utility system (electricity, water and sewer) is based on individualized point of service, except for electricity. Electrical wires are run above ground, from building to building. Future utility projects should include renewal of the entire utility system, including expansion and upgrade of the existing system and be designed for underground installation. New utility systems should improve reliability, redundancy, safety and energy efficiency.

Future electrical distribution projects should concentrate on replacement of existing wiring, development of a grid system, and installation of switchgears to support the grid. Underground distribution cabling shall be installed to support associated switchgears throughout the campus, to improve reliability and increase the capacity of the University electrical distribution system.

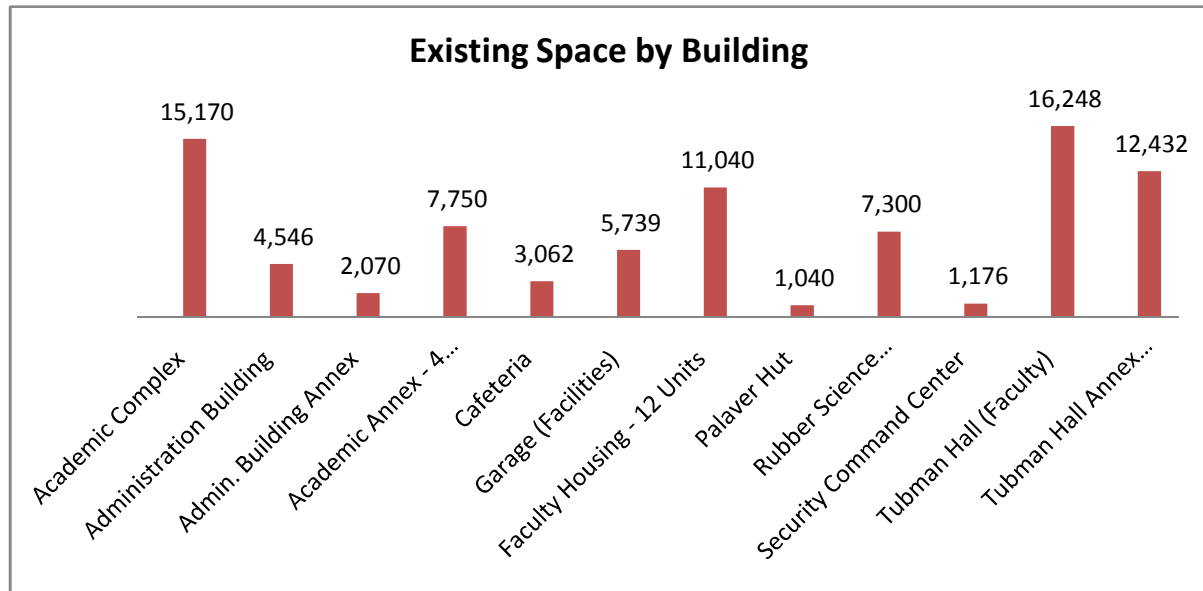
FACILITIES USE TRENDS

At the point of this planning exercise, there had been no facilities user trends developed at the University. An assessment of the impact of possible over utilization or under-utilization of facilities at the University revealed that facilities were being over utilized, especially classrooms, due to the lack of sufficient space. The University needs to develop space guidelines, standards of capacity, and indicators of facility usage to guide University growth.

FACILITIES APPROPRIATENESS

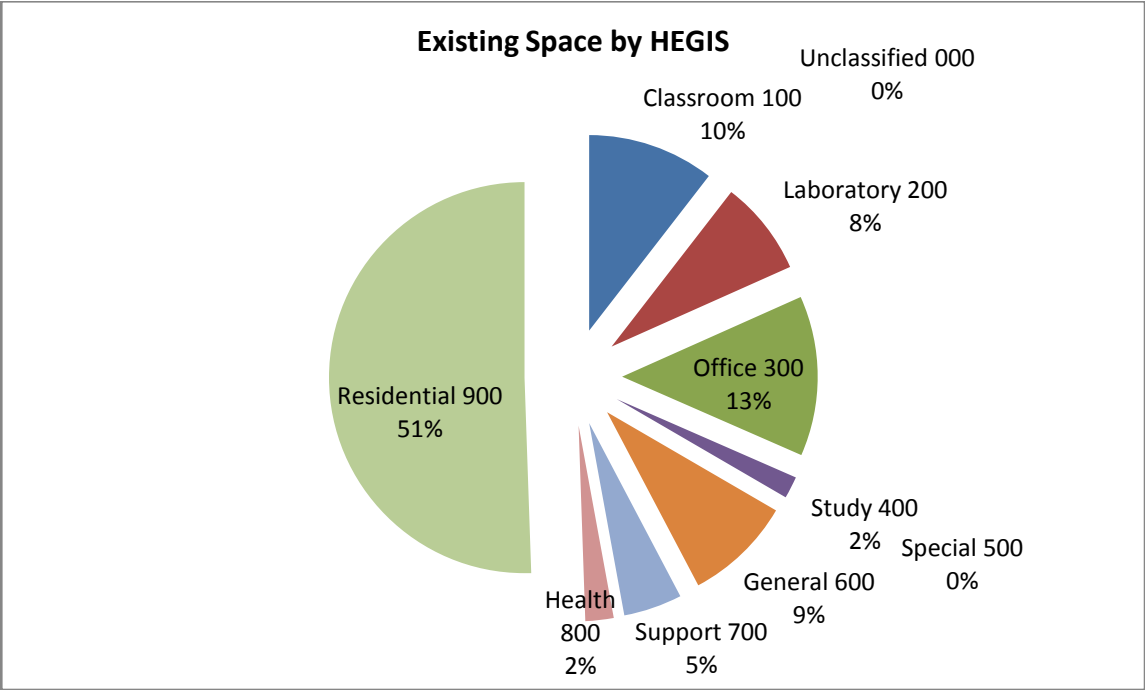
An assessment conducted to identify the appropriateness of University facilities revealed the following:

- The majority of learning spaces at the University, including classroom and laboratory space did not meet international standards for equipment, size, occupancy, acoustics, and other design and use elements.
- Office space was found to be inadequate for the number of employees, and a vast majority of offices were either too small, or did not have appropriate furnishing.
- Based on the University growth trends, existing facilities cannot adequately accommodate or support present and future academic programs and services.
- Future space planning efforts should focus on ensuring that the University meets accreditation standards and legal mandates where applicable.



Majority of the University's existing space is currently devoted to residential use, including faculty, staff, and student housing at 39% of all net assignable square feet (NASF). Laboratory space ranked second highest at 17%, followed by classroom space ranking 13%. Space devoted to general use, including assembly, food service and meeting rooms is 12%, and total office space ranked 12% of the total space.

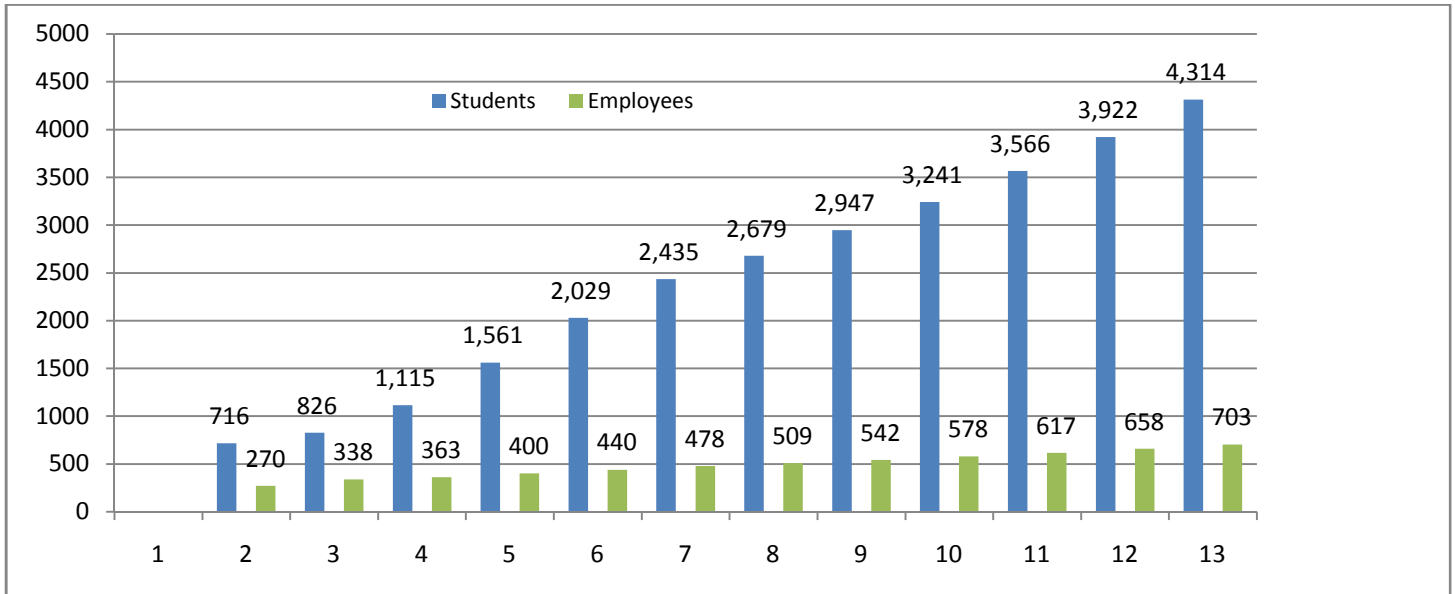
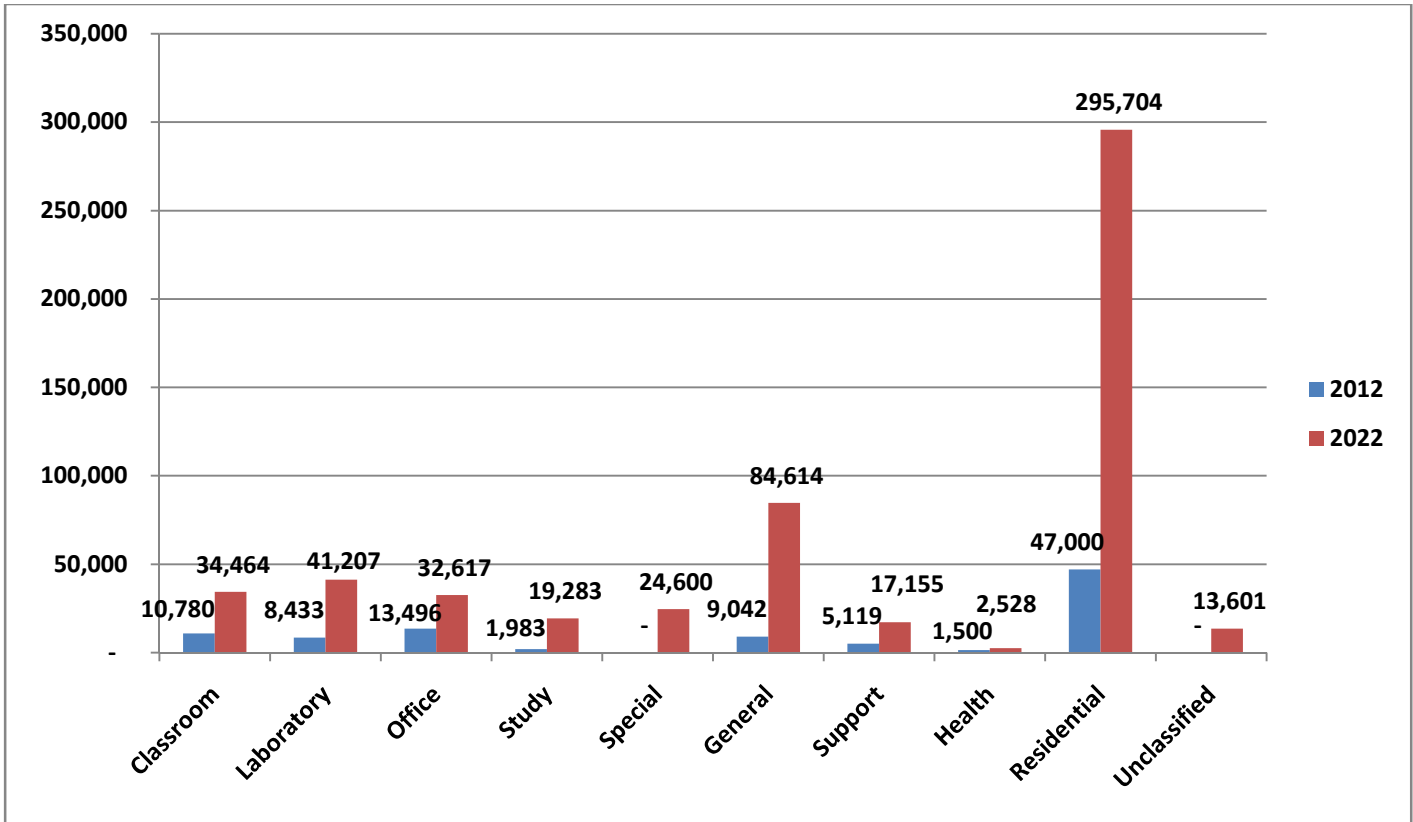
The University is constrained by insufficient and inadequate space for learning and support activities. In addition, existing recreational facilities on the campus, such as the soccer field, basketball court, and other outdoor facilities are dilapidated, out-dated, or non-existent. The chart below shows distribution of the University's existing space by HEGIS category.



**Existing Space Inventory
F 2012**

No.	Building /HEGIS	Classroom 100	Laboratory 200	Office 300	Study 400	Special 500	General 600	Support 700	Health 800	Residential 900	Unclassified 000	TOTAL NASF
1	Academic Complex	3,180	6,133	3,874	1,983	-	-	-	-	-	-	15,170
2	Administration Building	-	-	4,546	-	-	-	-	-	-	-	4,546
3	Admin. Building Annex	-	-	1,320	-	-	-	-	750	-	-	2,070
4	Academic Annex 4 Buildings	5,500	900	600	-	-	-	-	750	-	-	7,750
5	Cafeteria	-	-	-	-	-	3,062	-	-	-	-	3,062
6	Garage (Facilities)	-	-	700	-	-	-	5,039	-	-	-	5,739
7	Staff Housing - 5 Buildings	-	-	-	-	-	-	-	-	18,926	-	18,926
8	Palaver Hut	-	-	240	-	-	800	-	-	-	-	1,040
9	Residence Hall (Students)	700	-	-	-	-	1,800	-	-	7,280	-	9,780
10	Rubber Science Tech	1,400	1,400	1,350	-	-	3,150	-	-	-	-	7,300
11	Security Command Center	-	-	866	-	-	230	80	-	-	-	1,176
12	Tubman Hall (Faculty)	-	-	-	-	-	-	-	-	16,248	-	16,248
13	Tubman Hall Annex	-	-	-	-	-	-	-	-	12,432	-	12,432
	TOTAL	10,780	8,433	13,496	1,983	-	9,042	5,119	1,500	47,000	-	97,353

10-Year Space Comparison 2012 - 2022



10-Year Space Analysis
F 2012 – F 2022

HEGIS CODE	HEGIS CATEGORY	Current Inventory	Current Needs	Surplus/ (Deficit)	10 Year Gain / Loss	10 Year Needs	Surplus/ (Deficit)
100	CLASSROOM	10,780	14,993	(4,213)	23,684	12,397	11,287
200	LABORATORY	8,433	28,000	(19,567)	32,774	9,698	23,076
300	OFFICE	13,496	7,650	5,846	19,121	15,520	3,601
400	STUDY	1,983	15,224	(13,241)	17,300	22,836	(5,536)
500	SPECIAL USE	0	10,000	(10,000)	24,600	15,000	9,600
600	GENERAL USE	9,042	12,456	(3,414)	75,572	91,442	(15,870)
700	SUPPORT	5,119	8,500	(3,381)	12,036	23,917	(11,881)
800	HEALTH CARE	1,500	4,246	(2,746)	1,028	8,020	(6,992)
900	RESIDENTIAL	47,000	28,800	18,200	248,704	259,304	(10,600)
000	UNCLASSIFIED	0	0	0	13,601	13,601	0
	Total NASF:	97,353	129,869	(32,516)	468,420	471,735	(3,315)

SUMMARY OF SPACE NEEDS

The University's main campus is comprised of 15 buildings; including 4 building that are pending constructions or renovations in 2012.

The University does not have a space analysis model to determine the amount of space needed to support enrollment growth and support services. Therefore, the projections in the master plan are based on the Higher Education General Information System (HEGIS) space category model, and it assumes an average enrollment growth of 2 percent per annum, based on a total enrollment of 4,518 students in 10 years.

This master plan predicts that an average student to faculty ratio of 20:1 will be maintained within the 10 years period, with modest increases in full-time staff, administrators and contractual workers.

The master plan projects a total space need of more than 204,000 net assignable square feet (NASF) feet in 10 years, and nearly 750,000 gross square feet (GSF) in the same period based on best practices of space efficiency. The majority of space projected in this master plan is intended for instructional and residential facilities. In addition, the master plan projects a space deficit of nearly 36,000 NASF at the end of the 10 year period based on funding and development trends. In keeping with the University's health and fitness goals, the master plan proposes a 4-mile walking trail to be planned and constructed around the main campus.

Outlined below is a proposed 10 years development timeline for 25 new buildings and a walking trail. The timeline, subject to change, shall be used by University administrators in planning capital projects, and submitting annual capital budget requests to the Government of Liberia.

10 Years Development Timeline

No.	Building	GSF	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Academic Building - A	65,263											
2	Auditorium, 800 Seats	33,485											
3	Bank Building	5,857											
4	Cafeteria 2	10,455											
5	Engineering Building	39,777											
6	Facilities Building	7,403											
7	Faculty Duplexes – A, 20 units	51,429											
8	Faculty Duplexes – B, 20 units	51,429											
9	Faculty Apartment – A, 40 units	91,429											
10	Guest House	3,429											
11	Library - Learning Resource Center	38,248											
12	Power Plant	3,571											
13	Radio Station	3,857											
14	Residence Hall – A, 100 rooms	34,643											
15	Residence Hall – B, 60 rooms	23,216											
16	Sports Complex / Gym	62,971											
17	Staff Apartment – A, 20 units	45,714											
18	Staff Duplexes – A, 20 units	51,429											
19	Student Services Building	18,250											
20	Supermarket	4,386											
21	University Clinic	5,870											
22	University Chapel	18,636											
23	Admin. Annex (Offices)	4,140											
24	Faculty Office Building	4,140											
25	Faculty Apartment - A (16 units)	18,077											
26	Walking Trail	4 Miles											

10-Year Growth Projection
F 2012 – F 2022

No.	Category		Current	F 2012	F 2013	F 2014	F 2015	F 2016	F 2017	F 2018	F 2019	F 2020	F 2021	F 2022	Total
1	Students		716	826	1,115	1,561	2,029	2,435	2,679	2,947	3,241	3,566	3,922	4,314	4,314
				21	35	40	30	20	10	10	10	10	10	10	20.6
1	Full Time Faculty	(1:20)	21	44	56	78	101	122	134	147	162	178	196	216	216
2	Adjunct Faculty	(1:0.5)	7	9	10	12	14	16	19	22	25	29	33	37	37
3	Teaching Assistants	(1:0.2)	8	9	10	12	14	16	19	22	25	28	32	37	37
4	Administrators	(0.02)	54	87	89	91	92	94	96	98	100	102	104	106	106
5	Staff	(0.05)	165	173	182	191	201	211	221	232	244	256	269	282	282
6	Contractual Workers	(0.5)	15	16	17	17	18	19	20	21	22	23	24	26	26
7	Others / Volunteers		2	2	2	3	3	3	4	4	4	5	5	6	6
	TOTAL EMPLOYEES		270	338	363	400	440	478	509	542	578	617	658	703	709

SPACE NEEDS ANALYSIS

Since it opened in September 2009, renovation activities at the University have not been conducted in accordance with any specific master planning document. However, architects and contractors have been encouraged to apply good professional judgment in considering national building codes, life safety codes, energy use, and adaptability of buildings to new technology. The University space inventory, assessment and future needs are based on the Higher Education General Information System (HEGIS) space category codes:

000: UNUSED SPACE

UNFINISHED AREA or INACTIVE AREA: Space available for assignment but unassigned at time of inventory, or unfinished space but potentially usable. Current allotment in this category is 0%.

100: CLASSROOMS

CLASSROOM: A scheduled room for academic classes not requiring special equipment for student use such as a lecture hall, lecture-demonstration room, seminar room or other general purpose classroom. A room serving scheduled classes as an extension of the activities in such rooms. A projection room, cloak room, preparation room, or storage closet serving a classroom. Current allotment of classroom space is 17,464 NASF, or 13% of the total net assignable square feet including buildings that are currently under renovation or scheduled for renovation by F 2012.

200: LABORATORIES

CLASS LABORATORY: A room used primarily for regularly scheduled classes, which require special purpose equipment for student participation such as experimentation, observation or practice in a discipline. A room serving one or more class laboratories. The University's current laboratory space is 23,907 NASF, representing 17% of the total net assignable square feet. Analysis of data shows that lab space has a deficit of 4,093 NASF.

300: OFFICE SPACE

OFFICE: A room used by a professional person engaged primarily in teaching, research or public service at the University. A room, usually part of an office complex, used primarily for Faculty or Staff meetings. May contain departmental collections and serves one or more conference rooms as an extension of the activities in those rooms. The University's current office space allotment is 12% of the total net assignable square feet.

This inventory exceeds needs by 9,029 NASF when pending renovations scheduled to be completed within 12 months are added.

400: STUDY

STUDY ROOM: A room or area used by individuals to study at their own convenience, which is not restricted to a particular subject or discipline by contained equipment. This includes general purpose study space, residential hall study area, and rooms used to provide shelving for library or audio/visual materials, including music scores, tapes, and records. A combination of study room and stack space; generally without physical boundaries between the stack and study areas. Currently, the University has a major space deficit in this area, to the extent of 13,241 NASF. The currently space allotment is 1,983 NASF, representing only 1% of the total.

500: SPECIAL USE FACILITIES

ARMORY, ATHLETICS, PHYSICAL EDUCATION: A room or area used for officer-training units, including indoor drill areas. A room serving an armory as an extension of its activities; or areas used by students, staff, or the public for athletics and physical education activities, including gymnasiums, courts, wrestling rooms, pools, and field house. Indoor “special use” space is completely non-existent. Current analysis suggests a deficit of 10,000 NASF.

600: GENERAL USE FACILITIES

ASSEMBLY: A room designed and equipped for a large audience for events such as dramatic, musical, or devotional activities, livestock judging and commencements; but does not include facilities used primarily for instruction. Also, a room serving an assembly facility as a direct extension of its activities; including coat rooms, ticket booths, projection booths, control rooms, dressing rooms, make-up rooms, costume storage, but not lobby space. A room or area for exhibition purposes intended for general use by students and the public. Also, a room used to provide day or night, child or elderly adult care as a nonmedical service to members of the institutional community. When the pending renovated engineering building data is considered, the University seems to have a surplus of 4,678 NASF. However, the true inventory without the rubber science technology and engineering buildings is a deficit of 5,944 NASF.

700: SUPPORT FACILITIES

COMPUTER, TELECOMMUNICATIONS, CENTRAL STORAGE, SHOPS: A room used as a computer-based data processing or telecommunications center with applications that are broad enough to serve the overall administrative or academic primary functions. A room serving as shop or an extension of its activities. A room used to manufacture,

repair, or maintain products or equipment. A large room or building that is used to store equipment or materials that serve multiple room use categories, organizational units or buildings. A room or area used to service or maintain vehicles. A centralized facility used for the storage, treatment or disposal of hazardous or toxic waste materials. The University's current inventory of support space is 5,259 ASF (4%); however, analysis of data suggests a space need of 8,500, creating a space deficit of 3,241 NASF.

800: HEALTH CARE (HUMAN OR ANIMAL MEDICAL FACILITIES)

HEALTH CARE SERVICE, PATIENT BEDROOM, PATIENT BATH, SURGERY SERVICE, TREATMENT/EXAMINATION ROOM: A room equipped with bed(s) and used for patient care. A space that directly serves one or more patient bedrooms as an extension of the activities in those rooms. A room or area used by nurses to supervise or administer health-care facilities. A room used for surgery or diagnostic service. A room or quarters used by health care staff to rest or sleep while on-call to assigned duties within a health care facility. The University has a space deficit of 1,718 NASF for this category; the current inventory is 2,528 or 2% of the total net assignable square feet.

900: RESIDENTIAL

HOUSE, APARTMENT, SLEEP/STUDY GUEST HOUSE: A complete living unit, with private cooking facilities, that is a separate structure. A residential space for one or more persons. A room or an area that directly serves an apartment or group of apartments, with circulation areas, but limited to use by residents only. Residential space in this master plan includes student, faculty and staff; and the inventory of current space includes students residence hall scheduled for renovation within the academic years. Therefore, space inventory under this category shows a space surplus of 26,308 NASF. The actual inventory without the resident hall is 16,308.



**TUBMAN UNIVERSITY
CONCEPTUAL MASTER PLAN**

Facilities Master Plan
Preliminary Cost Summary
United States Dollars

No.	FUTURE BUILDINGS - (10 Years)	GSF	Proposed Construction Year	Cost Factor	Building Cost	Site Dev. (5%)	A/E Services (5%)	Total Cost (Excludes Eq.)
1	Academic Building - A	65,263	2014	45	2,936,842	146,842	146,842	3,230,526
2	Auditorium (800 Seats)	33,485	2014	50	1,674,242	83,712	83,712	1,841,667
3	Bank Building	5,857	2013	45	263,571	13,179	13,179	289,929
4	Cafeteria -2	10,455	2017	55	575,000	28,750	28,750	632,500
5	Engineering Building	39,777	2013	35	1,392,195	69,610	69,610	1,531,415
6	Facilities Building	7,403	2016	45	333,117	16,656	16,656	366,429
7	Faculty Duplexes - A (20 units)	51,429	2014	45	2,314,286	115,714	115,714	2,545,714
8	Faculty Duplexes - B (20 units)	51,429	2015	45	2,314,286	115,714	115,714	2,545,714
9	Faculty Apartment - B (40 units)	91,429	2018	60	5,485,714	274,286	274,286	6,034,286
10	Guest House (6 Suites)	3,429	2015	45	154,286	7,714	7,714	169,714
11	Learning Resource Center	38,248	2013	45	1,721,143	86,057	86,057	1,893,257
12	Power Plant (includes underground wiring)	3,571	2017	85	303,571	15,179	15,179	333,929
13	Radio Station	3,857	2018	60	231,429	11,571	11,571	254,571
14	Residence Hall - A (100 rooms)	34,643	2016	55	1,905,357	95,268	95,268	2,095,893
15	Residence Hall - B (60 rooms)	23,216	2019	65	1,509,021	75,451	75,451	1,659,924
16	Sports Complex (Field/Gym/off,/Courts)	62,971	2014	45	2,833,696	141,685	141,685	3,117,065
17	Staff Apartment - A (20 units)	45,714	2015	45	2,057,143	102,857	102,857	2,262,857
18	Staff Duplexes - A (20 units)	51,429	2018	60	3,085,714	154,286	154,286	3,394,286
19	Student Services Building	18,250	2013	45	821,250	41,063	41,063	903,375
20	Supermarket	4,386	2016	50	219,298	10,965	10,965	241,228
21	University Clinic	5,870	2014	60	352,211	17,611	17,611	387,432
22	Admin. Annex (Offices)	4,140	2013	15	62,105	3,105	3,105	68,316
23	Faculty Office Building	4,140	2013	15	62,105	3,105	3,105	68,316
24	Faculty Apartment - A (16 units)	18,077	2013	25	451,930	22,596	22,596	497,123
25	University Chapel	18,636	2019	65	1,211,364	60,568	60,568	1,332,500
TOTAL		697,104						\$ 37,697,964

CAPITAL PROJECTS: RECOMMENDATIONS

The physical plant needs of Tubman University are significant. While the number of existing buildings which have been renovated since 2009 represents a major improvement, the yet-to-be renovated buildings and other similarly older buildings are in serious need of upgrade, including the Engineering Building and the Boys Dormitory (Residence Hall). Current space needs justify construction of new facilities, and projected enrollment growth to 2022 increase the need even more.

The first, next renovation project must be the renovations to the Boys Dormitory building to provide some much needed on-campus residence hall accommodation for students. This project was scheduled a little over a year and a half ago and then later postponed. The Engineering Building requires top-to-bottom, comprehensive renovations, including re-purposing of major building elements, such as circulation, entrances, interior stairs and ramps, laboratories, public/open spaces, and quite possibly a 2nd level extension/expansion.

The first next new construction project must be the construction of a new library. The University Library needs much more space, preferably its own building located at a central location on campus. It should be conceived as a comprehensive learning center to include library functions, combined with a Student Success Center, to include learning support, tutoring and testing. A center for Teaching Excellence should also be considered as part of this project.

The inadequate parking conditions on the main campus can only be met by the construction of new surface parking lots at various locations. This should be undertaken in conjunction with related campus-wide site improvements, including the proposed (Main Gate and Tubman Monument Plaza) improvements and the new roadway and pedestrian network systems.

Space needs projections and proposed program expansion and enhancement demonstrate the need for increased space for the College of Health Sciences and College of Education. It is our understanding at the time of this exercise that the College of Health Sciences has been earmarked to occupy the E. U. Science Complex site located on Stadium Road in Central Harper and College of Education to occupy the Academic Annex site located directly across from the main campus entrance. The relocation of these colleges should be pursued as two of T. U's. Off-campus or satellite projects in the not-too-distant future.

Tubman University needs to vacate its current leased (Parsonage) location, but should maintain a Downtown presence in the city of Harper and initiate a presence in the City of Pleebo as decentralization measures. A combined continuing education/workforce development center is suggested for each location. This concept, number of facilities, and location strategies should be studied further.

PROPOSED PROJECTS:

Short Term – 0-5 years:

- Complete Renovations
 - Boys Dormitory
 - Engineering Building
- Parking, Circulation, and Site Improvements
 - Main Entrance Gate and Tubman Monument Plaza
 - New / re-configure roadway and pedestrian network System.
- New Construction
 - Library-Learning Resource Center
 - Administrative Annex (offices)
 - Faculty Office Building
 - Faculty Apartments – A (16 units)
 - Academic Building – A
 - Bank building
 - Auditorium (Gymnasium)
 - Faculty Duplexes – A (20 units)
 - Student Services Building
 - University Clinic
 - University Guest House
 - Staff Apartments (20 units)
 - Basketball Courts, Tennis Courts and Soccer Field
 - Waste Management Program / Project

Next 5 years:

- New Construction
 - Residence Hall – A (100 rooms)
 - Staff Duplexes – A (20 units)
 - University Chapel
 - Sports Complex
 - Residence Hall – B (60 rooms)
 - Walking Trail
 - Facilities Building
 - Radio Station
 - Power Plant

- Off-Campus / Satellite Projects
 - College of Health Sciences Relocation
 - College of Education Relocation
 - Establish Satellite Site in Downtown Harper
 - Establish Satellite Site in Downtown Pleebo

Long Term > 10 years / as funds become available:

- Continuing Education / Workforce Development Centers
- The Future Learn / Building allows for expanded programs beyond the 10-year planning horizon of the Master Plan.