

PBK+FPC Higher Education Campus Master Plan

Lamar Institute of Technology



ARCHITECTURE \\ ENGINEERING \\ PLANNING \\ INTERIORS \\ TECHNOLOGY \\ FACILITY CONSULTING

1-800-938-7272 \\ PBK.com

Facilities Assessment Overview



Facility Assessment Summary

LIT Facility Assessment

Grand Total

- P1 items
- P2 Items
- P3 Items

P4 Items

OR

Arch

Building Envelope

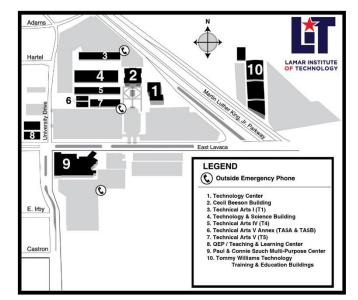
Civil

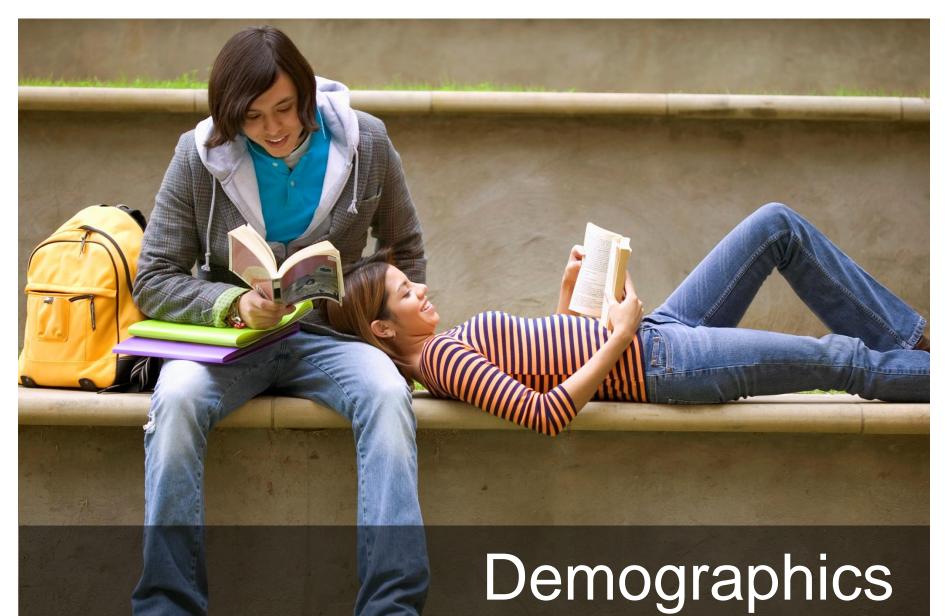
MEP

Technology

Life Safety & Security

- \$ 10,490,513.69
- \$ 4,819,981.60
- \$ 3,986,279.11
- \$ 1,520,799.78
- \$ 163,453.20
 - \$ 2,095,314.66
 - \$ 2,614,493.64
 - \$ 234,259.38
 - \$ 2,411,950.35
 - \$ 1,201,824.00
 - \$ 1,932,671.66





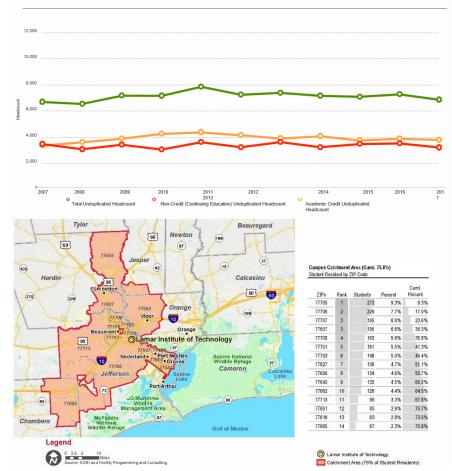
By Facility Programming and Consulting



Observations

- Proximity Matters
- Regional Catchment is defined by major thoroughfares
- Limited projected growth within the Catchment Area
- Enrollment of Contributory High School is flat
- No demographic momentum
- Low regional level of education attainment
- Historical Enrollment is flat
- 3 baseline enrollment projections suggest enrollment growth to 10x10 goal must be program driven





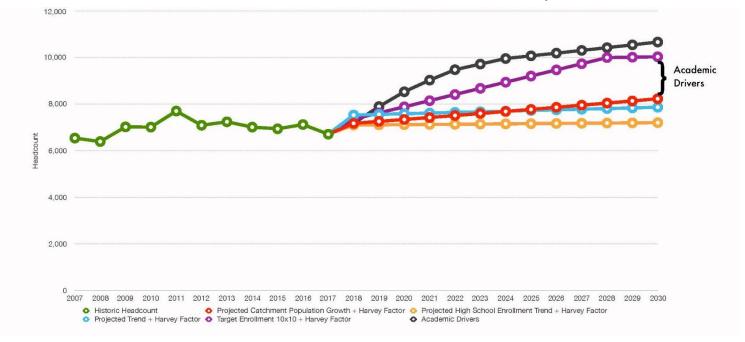
Facility Programming and Consulting



Academic Drivers

- Expand Existing Early College Partnerships
- New Early College Partnerships
- New Dual Credit Partnerships

- New Programs
 - Cyber Security
 - o EMS/ Emergency Management
 - o Environmental Science
 - o Allied Health
- New Recruitment + Retention Program
- Online Partnership with SHSU





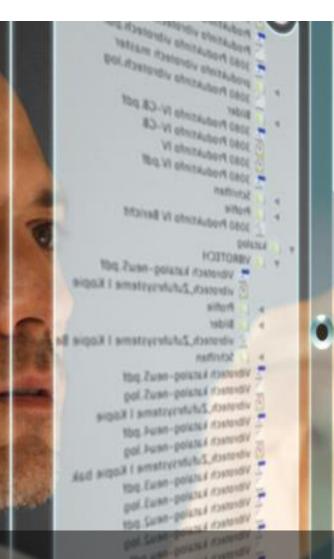


PERMIT

11 Alex Charles

14/100

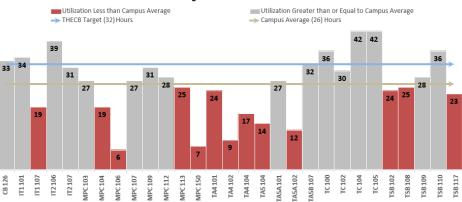
D⁴ solar side





Observations

- Total instructional hours scheduled meet goal Monday through Thursday
- THECB Goals suggest available classroom capacity but...
- Significant barriers to efficient classroom use including:
 - Peak Period Demand (9am Tuesday Problem)
 - Bifurcated Campus
 - o Older facilities
 - o "Silos"
 - Capacity Variety



Average Class Lab Hours Per Week Utilization Less than Campus Average Utilization Greater than or Equal to Campus Average 86 THECB Target (25) Hours Campus Average (24) Hours 70 60 50 51 40 37 30 33 24 26 2 20 25 25 10 12 13 MPC 255 TA2 108 APC 149 APC 163 MPC 251 MPC 252 FA4 100A FA4 100B TA4 107 TA5 105 TA5 107 TSB 115 TSB 222 TSB 225 IT1 103 MPC 115 APC 118 APC 131 IT2 105 IT2 108 TA5 100 TA5 101 TC 200 TC 204 TC 205 TSB 112 TSB 221 SB 226 SB 228 SB 229 SB 232 **APC 127** TC 202 SB 233

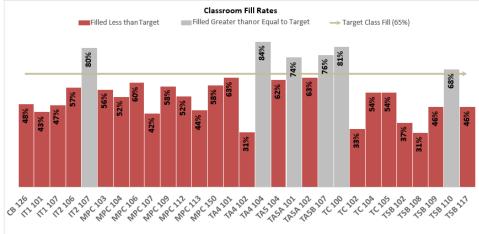
Average Classroom HoursPer Week

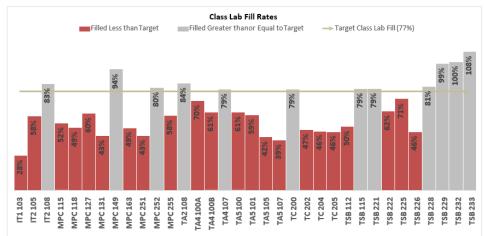
Facility Programming and Consulting



Observations

- Class lab scheduled is above the THECB goal Monday through Thursday
- Class lab fill well below the TTHECB goal
- Wide disparity in Utilization + Fill between specific labs
- Larger class labs consistently have lower fill rates than THECB goal
- Class lab utilization issues are location and discipline specific





Traffic Study By Dally+Associates



Traffic Study Recommendations

- Provide Pedestrian Hybrid Beacon at the crosswalk connecting the Multipurpose building to Campus.
- Develop turn lanes in and out of campus on Adams @ MLK
- Re-Align University and Natalie Intersection near Adams Road.
- Additional Wayfinding Signage
- Road way Striping improvements



Site Studies



Existing Campus



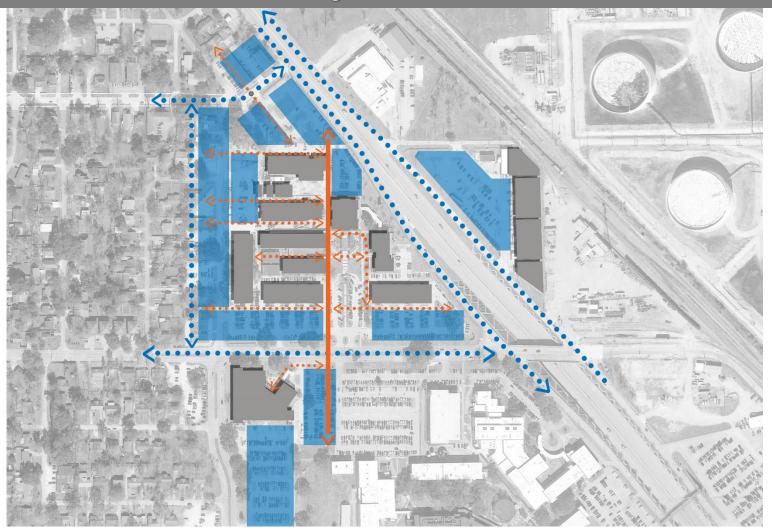


Final Contiguous Master Plan





Site Diagram – Circulation



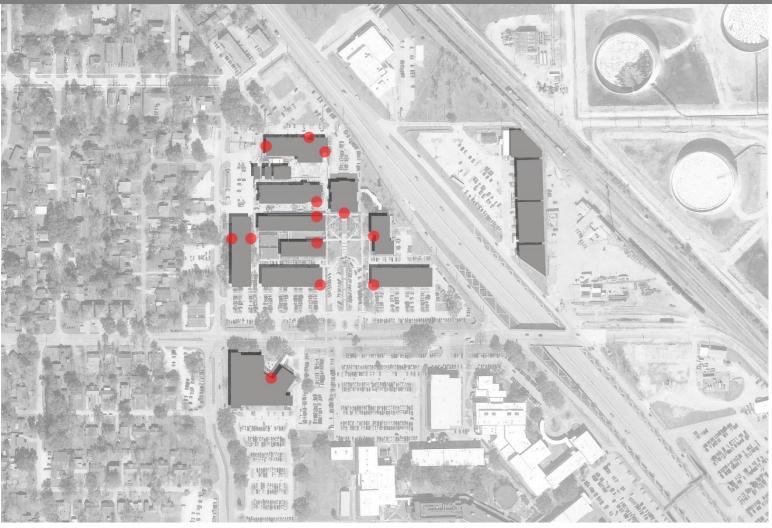






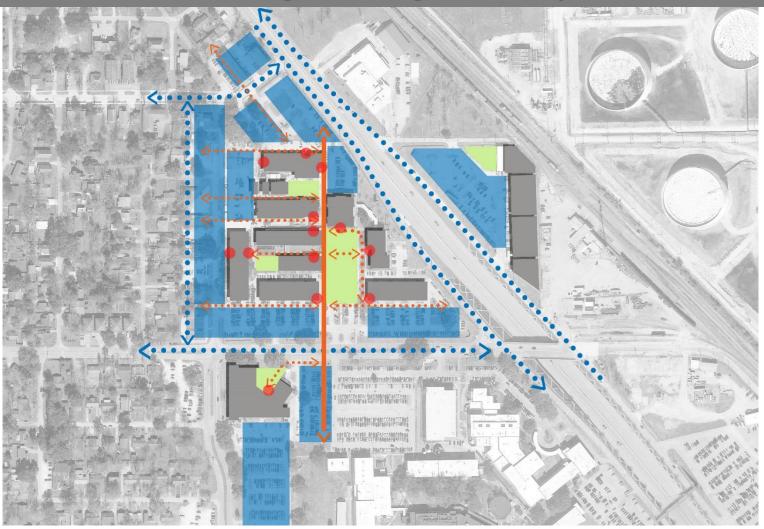








Site Diagram – Diagram Overlay





Masterplan Initiatives

ADDITIONAL CLASSROOMS AND LABS

In order to reach the 10 in 10 goal, additional properly sized purpose-built classrooms and labs will need to be constructed to accommodate the additional students. A new building to replace the classrooms that would be removed from T5A plus additional square footage would be a major building project for campus.

CLASSROOM STANDARDIZATION

Due to the college's sporadic growth over the years, the instructional facilities are a smattering of sizes and shapes. This initiative is to standardize classrooms and lab sizes/shapes in order to ensure ease of scheduling moving forward



WORKFORCE TRAINING

The Workforce Training building is another major project for the campus with a two-fold aim. First, providing a branded entrance for workforce programs near the Martin Luther King Jr. Parkway and East Lavaca Street intersection is a goal of the master plan. This would allow students a visible connection as they approach campus. The second is to provide ample space for the growing programs.

TOMMY WILLIAMS IMPROVEMENTS

The purchase of these buildings has been a considerable benefit to the Institute/s Welding Program, and so the next phases of expansion of the welding program as well as the relocation of the Police and EMS programs should be considered to complete the transformation of this portion of campus.



ADDITIONAL LAND PURCHASES

Numerous single and multi-family tracts of land on the west side of campus would make excellent additions to campus to expand the campus footprint and provide for future growth and eliminate some unsightly perimeter issues.



RELOCATE UNIVERSITY DRIVE

A stretch goal for the master plan, as it requires all of the additional land purchases to be completed. would be to move University Drive further west in order to make for a larger contiguous campus.

BUS DROP OFF FOR EARLY COLLEGE HIGH SCHOOL

In order to have a well designated pick up and drop off spot for the high school students who attend LIT classes, a covered sitting area will help define this location for both students and the drivers picking them

NURSING PROGRAM

A major building project for the master plan would house a drastically expanded nursing program. With a total square footage of 16,000 SF just for nursing the new 33,000 square foot building would also house additional classrooms and labs for general use.

PEDESTRIAN HYBRID BEACON

In order to assist students, faculty and staff navigate East Lavaca Street, the Traffic Study recommends creating a Pedestrian Hybrid Beacon, a traffic light strictly for pedestrian crossing a busy street, to allow for safe passage.



WAYFINDING AND SIGNAGE

The campus has created an elegant and well branded series of 'edge defining' marguee signs. This concept of signage can now be directed into the interior of campus to assist students, staff, and visitors navigate between buildings as the campus grows.



CAMPUS WIDE WIFI

For a campus of this size creating a network that allows for staff, students, and faculty to remain on WiFi even as they move between building to building was, a soft requested, goal during the process of creating this master plan.



CAMPUS SECURITY IMPROVEMENTS

Among the security improvements discussed for the entire campus were access control and security cameras. These two features can be linked to alert first responders when someone is getting unauthorized access to a door. In addition, access control can be simply more convenient for staff and easier for the school to control.



Additional Classrooms and Labs – Initiative #1



Additional Classrooms and Lab Building

- 30,000 SF (Two Stories)
- Program
 - o (14) Classrooms
 - (2) Large Lecture Classrooms
 - o (1) Computer Lab
 - (1) Faculty Suite
- Demolish T5 Annex





Classroom Standardization – Initiative #2





Workforce Training Center – Initiative #3



Workforce Training Building

- 30,000 SF (Two Stories)
- Workforce Entry
- Program
 - (10) Classrooms
 - (1) Large Lecture Classroom
 - o (2) Computer Labs
 - o (1) Faculty Suite
 - o (1) Workforce Suite





Tommy Williams Improvements– Initiative #4



Tommy Williams Improvements

- Storage Building Renovation
- Renovation For Police and EMS
- Vending/Break Rooms





Additional Land Purchases – Initiative #5



Purchase adjacent 8 and a half single family tracts along University Drive to the West and one multifamily tract to the North along MLK with an assessable tax value of just under \$1 million.

Estimated total purchase cost = \$1,770,000





Initiative #6 and Initiative #7



<u>Relocate University Drive - Initiative #6</u> Purchase Additional Land from Initiative #5

- Move Road to the West Boundary
- Additional Parking

Early College Students Bus Drop Off - Initiative #7 Covered Bus Drop-off For Early College Students





Nursing Program– Initiative #8



Nursing Program Building

- 30,000 SF (Two Stories)
- Program
 - Large Lecture Classroom
 - Nursing Computer Lab/Testing
 - Skills & Simulation Labs + Support Space
 - o Faculty Suite





Pedestrian Hybrid Beacon – Initiative #9



Pedestrian Hybrid Beacon For Connecting Campus





Wayfinding and Signage – Initiative #10





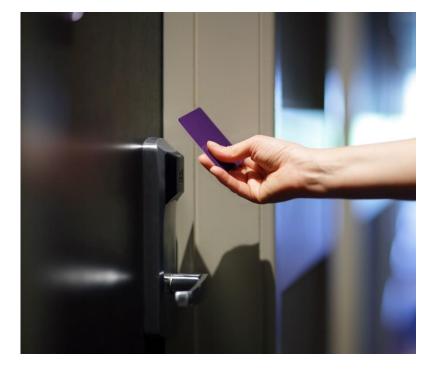
Campus Wide WiFi – Initiative #11







Campus Security Improvements – Initiative #12







Lamar Institute of Technology Overall Budget Sheet								
Project		Construction Cost	Soft Cost	Total Cost				
Academic Building	New Construction	\$12,000,000.00	\$3,480,000.00	\$15,480,000.00				
Classroom Standardization	Renovation	\$5,750,000.00	\$1,725,000.00	\$7,475,000.00				
Workforce Training Center	New Construction	\$13,500,000.00	\$3,915,000.00	\$17,415,000.00				
Tommy Williams Improvements	New Construction/Renovation	\$9,700,000.00	\$2,910,000.00	\$12,610,000.00				
Additional Land Purchases	Acquisition	\$1,500,000.00	\$270,000.00	\$1,770,000.00				
Relocate University Drive	Infrastructure	\$1,600,000.00	\$288,000.00	\$1,888,000.00				
Bus Drop Off	New Construction	\$200,000.00	\$58,000.00	\$258,000.00				
Nursing Building	New Construction	\$12,750,000.00	\$3,697,500.00	\$16,447,500.00				
Pedestrian Hybrid Beacon	New Construction	\$550,000.00	\$159,500.00	\$709,500.00				
Wayfinding & Signage	Infrastructure	\$200,000.00	\$36,000.00	\$236,000.00				
Campus-wide WiFI & Technology	Infrastructure	\$750,000.00	\$135,000.00	\$885,000.00				
Campus-wide Security Improvements	Infrastructure	\$500,000.00	\$90,000.00	\$590,000.00				
Facility Assessment	Infrastructure	\$9,150,000.00	\$1,647,000.00	\$10,797,000.00				
				\$86,561,000.00				



Lamar Institute of Technology Overall Escalation Costs							
Project	2018 Cost	6 Month Escalation	12 Month Escalation	18 Month Escalation	24 Month Escalation		
Academic Building	\$15,480,000.00	\$16,408,800.00	\$17,393,328.00	\$18,436,927.68	\$19,543,143.34		
Classroom Standardization	\$7,475,000.00	\$7,923,500.00	\$8,398,910.00	\$8,902,844.60	\$9,437,015.28		
Workforce Training Center	\$17,415,000.00	\$18,459,900.00	\$19,567,494.00	\$20,741,543.64	\$21,986,036.26		
Tommy Williams Improvements	\$12,610,000.00	\$13,366,600.00	\$14,168,596.00	\$15,018,711.76	\$15,919,834.47		
Additional Land Purchases	\$1,770,000.00	\$1,876,200.00	\$1,988,772.00	\$2,108,098.32	\$2,234,584.22		
Relocate University Drive	\$1,888,000.00	\$2,001,280.00	\$2,121,356.80	\$2,248,638.21	\$2,383,556.50		
Bus Drop Off	\$258,000.00	\$273,480.00	\$289,888.80	\$307,282.13	\$325,719.06		
Nursing Building	\$16,447,500.00	\$17,434,350.00	\$18,480,411.00	\$19,589,235.66	\$20,764,589.80		
Pedestrian Hybrid Beacon	\$709,500.00	\$752,070.00	\$797,194.20	\$845,025.85	\$895,727.40		
Wayfinding & Signage	\$236,000.00	\$250,160.00	\$265,169.60	\$281,079.78	\$297,944.56		
Campus-wide WiFI & Technology	\$885,000.00	\$938,100.00	\$994,386.00	\$1,054,049.16	\$1,117,292.11		
Campus-wide Security Improvements	\$590,000.00	\$625,400.00	\$662,924.00	\$702,699.44	\$744,861.41		
Facility Assessment	\$10,797,000.00	\$11,444,820.00	\$12,131,509.20	\$12,859,399.75	\$13,630,963.74		
-							
Total	\$86,561,000.00	\$91,754,660.00	\$97,259,939.60	\$103,095,535.98	\$109,281,268.13		
Net Increase	\$0.00	\$5,193,660.00	\$5,505,279.60	\$5,835,596.38	\$6,185,732.16		



Master Plan Animation





Thank you.