ACC Alvin Campus, aerial view, 2004

CHAPTER 3

EXPLORATION

EXPLORATION

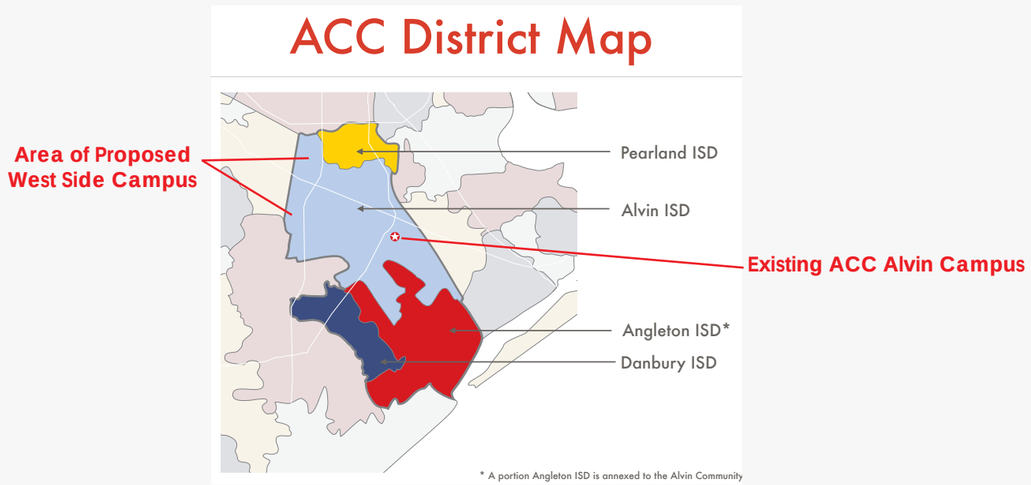
PROJECT DEFINITIONS

DEFINING POSSIBLE PROJECTS

The following list of project possibilities was created after examining stakeholder input, projected demographics, FCI ratings, and the ELT's plan for the future of ACC. Projects were designed to update and optimize existing buildings, while also rendering spaces more suitable to ACC's class sizes, for efficient use of space. A goal in orange text denotes a goal met by the project.

Buildings with low FCI ratings that were also not meeting their best use for ACC were recommended for removal. Buildings with low FCI ratings that were being well-used by ACC were recommended for renovation projects. Consideration was also given to growing programs, and consolidating departments into more effective zones on campus.

Conceptual costs for all projects are given at 2016 rates; cost for projects in the future would likely be higher, due to inflation. Some of these projects would ideally take place before others, to give all programs and offices a place on campus during each phase. Suggested phasing and implementation is given in the Recommendations chapter.



Classroom Right-Sizing - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate approximately 50,000 square feet of instructional spaces
- Create a furniture plan for classrooms for East and West Side campuses

Benefits

- Bring classrooms at ACC up-to-date
- Create flexible and varied learning environments
- Make scheduling more efficient by providing spaces to suit ACC's class sizes and needs
- Standardize ACC classrooms

Student Space Package - East Side Campus

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate approximately 28,500 SF, including all of E Building, to create or enhance spaces
- Create a furniture plan for student spaces for East and West Side campuses

Benefits

- Delineate clear zones for quiet/focused and noisy/social work
- Improve common areas for staff, students, and visitors
- Distribute student spaces evenly across campus
- Create connections between social spaces on campus

Photo: Ohio State University - Student Collaboration Space (Stantec)

Technical Building - East Side

Goals

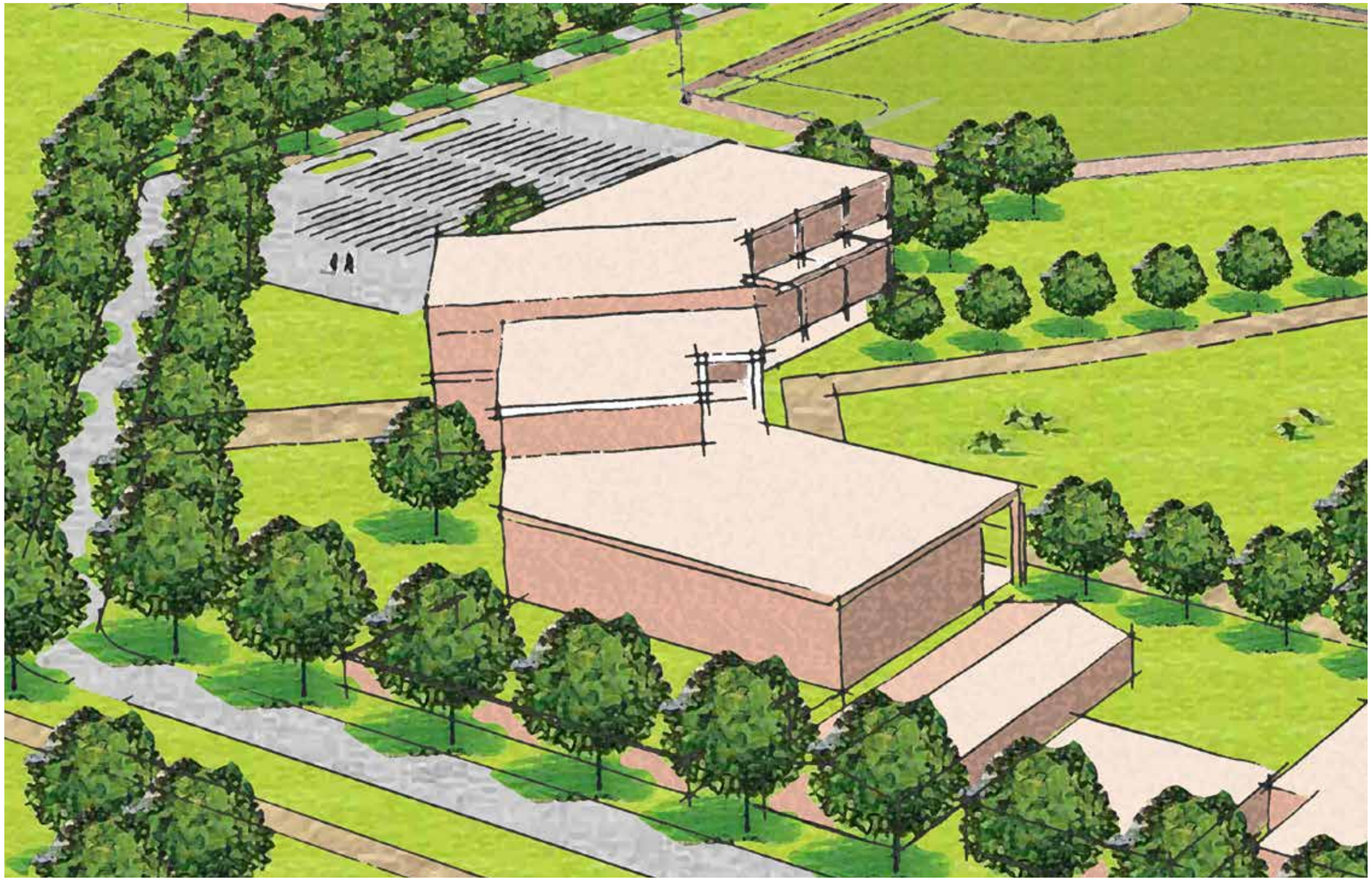
- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Build new Technical Programs building of approximately 50,000 NSF

Benefits

- Provide up-to-date facilities for ACC programs that require specialized areas
- Incorporate Welding and Machining, relocated from D Building
- Create new facilities for HVAC, Pipefitting, Occupational Safety, and odther technical programs
- Create a new observatory for Astronomy on roof, positioned above obstructions
- Anchor southern end of campus



ACC Alvin Campus, preliminary rendering of Technical Building

EXPLORATION

PROJECT DEFINITIONS

Renovate D Building - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate first floor of D Building

Benefits

- Renovate all high-bay spaces to create a classrooms and labs for Process Technology
- Relocate the practice control-room from N Building to D Building and enhance outdoor area to display program spaces toward Mustang Road

Renovate N Building - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate N Building (25,091 GSF)
- Construct second floor on N Building

Outcome

- Upgrade facilities for Criminal Justice programs
- Upgrade learning spaces and offices throughout building
- Improve aesthetic appeal of a major building facing Mustang Road, to increase curb appeal of campus

Expand Fine Arts - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate F Building (29,121 GSF)
- Build connection between J and F Buildings

Benefits

- Repurpose outdated fitness space to be high-bay art studios
- Provide art gallery with visual connection to Student Center and central courtyard
- Consolidate Arts programs for creative collaboration

Expand Nolan Ryan Center - East Side

Goals

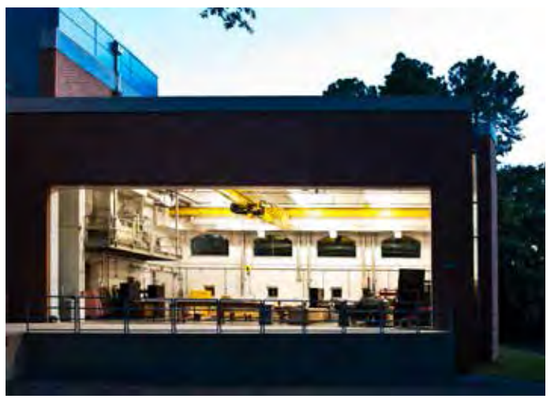
- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Expand Nolan Ryan Center; this expansion can be phased

Benefits

- Respond to the need - both at ACC and in the community - for a large event space to host conferences, graduations, and other events
- Upgrade Culinary program facilities and create a working student-run cafe



Photo, far left: College of William and Mary - High-Bay Space (Stantec)
Photo, left: TRU Campus - glass to bring in natural light (Stantec)

EXPLORATION

PROJECT DEFINITIONS

Renovate E Building

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate existing building (19,129 GSF)

Benefits

- Increase transparency of exterior walls
- Improve adjacent outdoor seating areas
- Address deferred maintenance
- Create a “lantern facility” at the heart of ACC
- Improve traffic flow in interior spaces by re-arranging eatery, cafe, dining area, game area, and bookestore

ACC Alvin Campus, preliminary rendering of renovated E Building and courtyard (wihtout G Building)

EXPLORATION

PROJECT DEFINITIONS

Improve Signage + Wayfinding - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Replace traffic and pedestrian wayfinding signs across campus

Benefits

- Improve wayfinding on campus
- Create an inviting campus atmosphere
- Clarify campus spaces

Create Outdoor Seating Areas

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Renovate select outdoor spaces
- Create a furniture plan for outdoor areas for East and West Side campuses

Benefits

- Improve existing outdoor seating areas through repairs and updated furnishings
- Create additional outdoor seating with coverings, seating, and tables

G Building Offline - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Demolish G Building (35,021 GSF)

Benefits

- Remove a building in poor condition
- Clear sightlines into and through courtyard
- Enhance and unify the central space of the campus
- Increase aesthetic appeal of campus for visitors and prospective students

Landscape Campus - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Landscape selected areas
- Repair, resurface, or remove sidewalks

Benefits

- Create strong sightlines, clarify campus boundaries, and minimize hiding areas according to CPTED recommendations
- Enhance and unify central space of campus
- Increase aesthetic appeal of campus for visitors and prospective students
- Soften appearance of buildings with low-maintenance landscaping plants
- Streamline and improve walkways and paths

Photo: University of Utah - Low-impact landscaping (Stantec)

Enhance Main Entry - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Demolish office spaces between A and B Buildings
- Renovate or enclose A/B bridge to frame entryway
- Landscape and hardscape entry drive and approach

Benefits

- Open sightlines from main entry to courtyard
- Beautify main entry with landscaping that echos the courtyard space
- Improve entry traffic hardscaping for better traffic flow and clearer intersections
- Clarify campus areas and boundaries for public and new students

ACC Alvin Campus, preliminary rendering of potential changes to entry way

EXPLORATION

PROJECT DEFINITIONS

New Childcare Facility - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Build new Childcare Facility

Benefits

- Provide up-to-date facilities for children to play while family members attended classes
- Create a safe, modern environment for children, away from noise and low air quality created by roads and parking lots
- Open C Building for classrooms and offices

Fitness Center - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Build new fitness center

Benefits

- Provide fitness center with updated facilities
- Create a future location for Childcare center
- Respond to requests for a campus that supports healthy living
- Support student athletes and students seeking fitness classes

Relocate Softball Field - East Side Campus

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Relocate softball field
- Create parking lot on existing softball field

Benefits

- Clear center of campus for future buildings
- Provide updated softball field
- Provide increased parking on southern campus
- Improve traffic and circulation
- Clarify campus areas and boundaries

Update Existing Buildings - East Side

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Optimize building conditions

Benefits

- Provide up-to-date facilities across campus
- Incorporate energy-efficient systems into existing ACC buildings
- Update finishes and equipment across campus

Photo, far left: Wabasca Childcare Facility (Stantec)
Photo, left: East 54th Street Recreation Center (Stantec)

West Side - Create First Building

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Build first building (~75,000 GSF)

Benefits

- Provide flexible general classrooms for initial program offerings
- Provide student life amenities, including a bookstore, cafe, and study spaces
- Provide offices, meeting areas, and service areas, including IT and Enrollment Services
- Provide essential classroom and support spaces for new campus to begin offering programs
- Define space and character of new ACC campus

ACC West Side Campus, preliminary rendering of first phase

EXPLORATION

PROJECT DEFINITIONS

West Side - Campus Landscaping

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Landscape central campus area
- Landscape main entry to first building

Benefits

- Provide covered seating areas with tables for outdoor work and enjoyment
- Create strong sightlines, clarify campus boundaries, and minimize hiding areas according to Crime Prevention Through Environmental Design (CPTED) recommendations
- Beautify and unify the central space of the campus in a similar fashion to the existing and highly valued courtyard space at the East Side campus

West Side - Campus Infrastructure

Goals

- Create Flexible/Varied Learning Environments
- Optimize Building Condition/Performance
- Maximize Utilization
- Ensure Campus Safety
- Meet Stakeholder Goals
- Provide Balanced Student Environments
- Capture Projected Growth
- Enhance Best Campus Features

Proposed Scope

- Install utilities
- Create parking areas and roadways

Benefits

- Provide utilities and infrastructure for future building sites

INTRODUCTION

Following World War II, the United States saw a surge in growth and development of junior and community colleges. The GI Bill funded students seeking a variety of educational programs, from liberal arts to career training. Alvin Community College, which was originally founded as Alvin Junior College in 1948, was one of the many schools that saw growth during the post-war period. In 1965, the college purchased a new 114 acre site, allowing ACC to move out of Alvin High School. The programs were well received by the community, and 1975 the Board of Trustees changed the name to Alvin Community College.

The distinctive modern architectural character of Alvin Community College can still be seen in the original buildings built in the early 1960's. These buildings were representative of innovative college buildings of the time using the latest in HVAC systems, steel construction with brick veneer and a flat roof. As ACC added programs and enrollment increased, a large section of campus buildings were added in the 1970's. They maintained the use of brick and were modern in character as the earlier buildings. However, due to the energy conservation concerns of the time, other features were implemented including the incorporation of a perimeter earth berm and a two-story shaded colonnade. The colonnade created a courtyard environment in an arrangement with the original buildings. Beginning in the 1990's newer campus buildings departed from the modern features of the previous buildings and introduced historical features in materials and details.

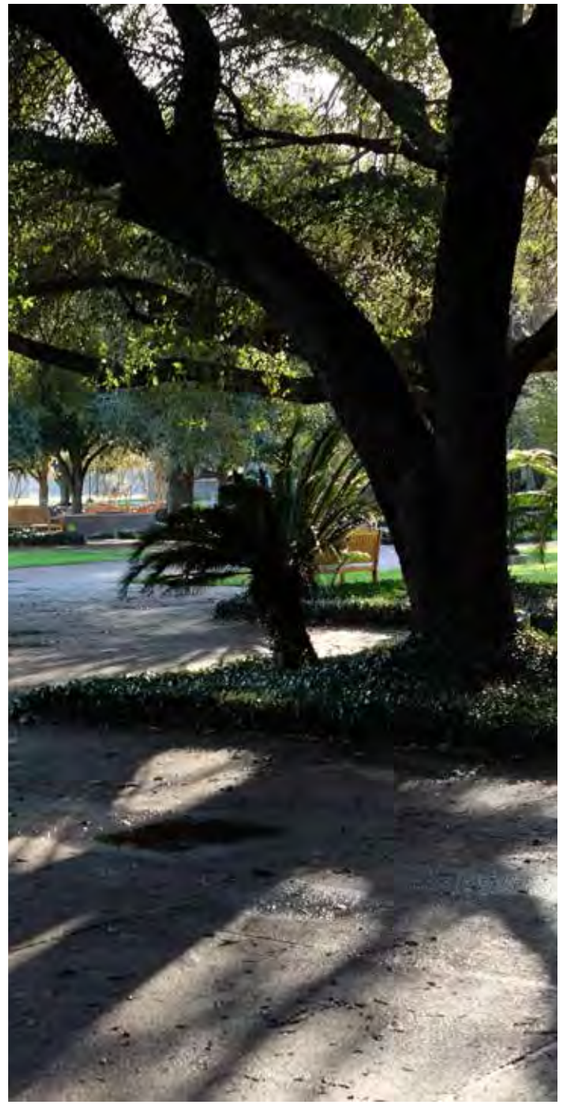
At present, a variety of architectural styles and details can be seen on the campus. To ensure a cohesive campus character in the future, the planning team worked with the ELT to understand ACC's architectural history and develop design guidelines to shape future projects. The Guidelines will prove to be sympathetic to the existing buildings while assisting with appropriate solutions for the campus' future architecture and outdoor spatial character.

ENHANCING ACC'S BEST FEATURES

It is the Executive Leadership Team's intention that all renovations and new construction at ACC's existing East Side campus and new West Side campus emphasize and enhance the best features of the institution. Students, faculty, and staff at ACC note the strong sense of community on campus. Both members of the ACC community and visitors to campus also notice and value the peaceful, beautiful outdoor spaces.

In order to preserve and support these features, the planning team recommends a pedestrian-friendly campus that encourages and engages human interaction. With each new building project, opportunities for creating common areas and gathering spaces should be explored.

Campus green space can play a key role as a recruitment tool, to entice new students while creating a sense of pride for the students, faculty, and staff and alumni.[1,2] The existing green and open spaces should continue a program of enhanced at the East Side campus of ACC, and the new West Side campus should also benefit by incorporating many of the successful features of the existing East Campus.



1. Abu-Ghazzeh, T. M. (1999). Communicating Behavioral Research to Campus Design Factors Affecting the Perception and Use of Outdoor Spaces at the University of Jordan. *Environment and behavior, 31*(6), 764-804.

2. McFarland, A. L., Waliczek, T. M., & Zajicek, J. M. (2008). The relationship between student use of campus green spaces and perceptions of quality of life. *HortTechnology, 18*(2), 232-238.

EXPLORATION

CAMPUS CHARACTER

ARCHITECTURAL HISTORY

This timeline shows the architectural history of the ACC campus along the top row, compared to the development of similar community college campuses along the bottom row. By examining how other similar institutions have dealt with updating their campuses, ACC can draw inspiration for future buildings and renovations at both the East and West Side campuses.

ACC: EXISTING BUILDINGS

H Building (1965)

E Building (1965)

A Building (1977)

1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975

Paris Junior College, original Administration Building (1940)

University of St. Thomas, Strake Hall (1957)

Paris Junior College, Student Center (1964)

Bowling Green State University Mathematical Sciences Building (1970)

COMMUNITY COLLEGES: COMPARABLE BUILDINGS

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CAMPUS CHARACTER

B Building (1977)

N Building (1983)

ACC Master Plan, completed 1992

R Building (1993)

S Building (2006)

1980 1985 1990 1995 2000 2005 2010 2015

Jackson Community College, Potter Center (1981)

Hibbing Community College (1996)

Jackson Community College, Atkinson Hall (2007)

Jackson Community College, Health Laboratory (2011)

Stantec

EXPLORATION

CAMPUS CHARACTER

CAMPUS HISTORY

During discussions of ACC's architecture with the ELT, the rich architectural history of the campus was explored. The ELT felt that this history should be on display, and suggested installing a set of interpretive panels to create a self-guided walking tour of ACC's architectural history. Beginning with the establishment of the 60 acre campus in 1965, the development of the campus and its character can be arranged into three distinctive phases. While each of the three phases fulfilled programmatic requirements they also acknowledge the representatives qualities of the college, they also have each contributed to and developed the overall campus character of ACC.

Phase I: 1965-1975

In the first phase of campus development at ACC, the four original campus buildings were constructed at the East Side campus.

The original ACC campus in 1965

They included the iconic round Student Center and Bookstore in E Building. Buildings G and H were academic buildings while F Building was a gymnasium. F Building was later expanded in the middle 1970's to include additional fitness spaces. These four original buildings were designed in 1963 by the firm of Wyatt C. Hedrick Inc. The firm, as well as Wyatt C. Hedrick himself, was well established throughout Texas and the nation. While the firm operated it was the third largest Architectural and Engineering firm in the United States. Wyatt C. Hedrick Inc. was recognized for several notable campuses, including Texas Tech, SMU, Baylor and Texas Christian. In departure from the firm's more traditional campus buildings, the buildings designed for ACC reflect the innovative architectural spirit of the time using strong rectangular flat-roofed forms with narrow vertical slit windows, and a distinctive overhanging roof for E Building, comprised of a series of radiating folded plates.

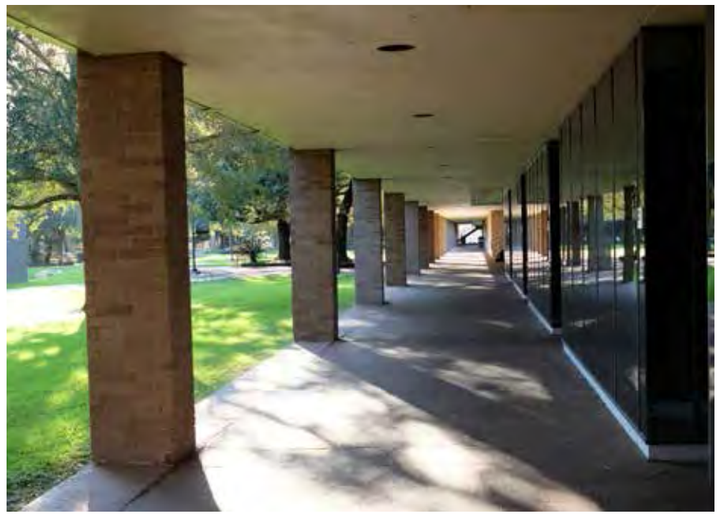
Phase II: 1975-1990

During Phase II, Building E was renovated, and F and G Buildings received additions. Of major significance to the campus during this second phase of development was the construction of Buildings A, B, C and D Buildings. These buildings were arranged as a continuous two-story u-shaped structure, providing for program areas including administration, library, classrooms, music rooms and welding. Architecturally, these buildings retained the use of brick as the earlier campus but the brick is a brown blend instead of the gray used in Phase I. Other architectural features introduced included horizontal band windows, two-level brick colonnades on the inward side of the building, and an earth berm (originally intended for energy conservation purposes) along the perimeter side of the first floor. Buildings A-D create a very strong edge of the campus and a protected architectural pathway for circulation along the exterior colonnade. The building was designed by the recognized Houston firm of Koetter, Tharp Cowell & Bartlett.

The next building constructed on the ACC campus was N Building in 1982. N Building was designed by Lockwood, Andrews & Newnam Inc. Similar to Buildings A-D, N utilizes the square brick columns that are now so iconic of ACC, as well as full-height glazing along the colonaddes. The exterior of the building is clad in a desert tan brick blend.

Phase III: 1990-Present

The third phase of growth at ACC, beginning in 1990 and leading up to the period in which this document was created, produced several new buildings with distinctive architectural styles. The No-



ACC's characteristic colonnades

lan Ryan Center, with its peaked roof and glass details, opened in 1993. It was designed by Carlin/White Associates. Architecturally the building is a blend of traditional classical elements - stone and brick - in combination with more modern materials such as glass and metals.

The S Building, a major addition to the ACC campus, was designed by the firm of SBWV and completed in 2006. A stylistic departure, this building borrows from a collegiate gothic style with details such as a stone water table, corner quoins, and banding. Although the building is primarily of brick, it introduces light colored cultured stone blocks. Unlike other campus buildings, the entire roof is clad in metal sloped roof, with straight and curved sections. A series of ornamental metal loggias at major and secondary entry points, are secured by round brick and stone based columns, with overhead curved truss-like structures.

S Building, aerial view

EXISTING CAMPUS FEATURES

Along with the architecture of the buildings, there are several important features that comprise the campus - many of which include the adjacencies and spaces between buildings and outdoor public spaces. Together, the architecture and outdoor environments of ACC make up a unique and appealing community space.

The Courtyard, Plaza and Memorial Fountain

In 1965, when the original campus was built, little was done to the outdoor spaces. E Building, designed as the Student Center, was the only building with a board roof overhang that provided students protection from sun and rain. Other than this, buildings, grounds, parking lots, and sidewalks that provided for circulation on the campus had little overhead covering or entries. It was not until 1975 that consideration was given for outdoor spaces and student community uses.

Buildings A-D created a strong Eastern edge for the campus, with cut-though spaces in the building that acted as gateways into the campus. A major gateway was created at the corner of A and B, aligned with the entry boulevard, which still serves at the primary campus entry. These buildings form a three-quarter enclosure along with Buildings H and F, which is centered on the hub of E Building. Within this enclosure, a courtyard space is created that displays a unity between all surrounding buildings and creates a sense of protection and social intimacy that encourages pedestrian interaction between buildings, unifying the outdoor and indoor spaces of the campus.

The courtyard space is anchored by a plaza, designed in 1975 by Koetter, Tharp & Cowell, between Buildings A-D. Incidental to the creation of the plaza was the planting of numerous live oak trees that continue to thrive today, providing shade and enhancing the outdoor environment. In the 1998–1999 school year, Alvin Community College commemorated its 50th Golden Anniversary with several events and dedications. One of the lasting of these dedications was the 2,500 square foot Memorial Fountain and Plaza located in the courtyard, alongside the existing outdoor plaza. The fountain was designed in 1994 by the architecture firm of Jackson and Ryan (Houston, TX). Visible through the A/B

The ACC Memorial Fountain, with the A/B entry breezeway in the background

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entry breezeway, the fountain has become the heart of the outdoor space on the campus. It provides a retreat with shaded bench seating areas, centered around a granite-faced fountain featuring two cast bronze dolphins and a large granite monolith that commemorates those who have contributed to the history and legacy of the college and campus.

The Colonnades

Beginning with Thomas Jefferson's design the University of Virginia, the Colonnade has long been recognized within the architectural lexicon of the American College Campus. Consisting of a long sequence of columns joined by a continuous covered area, either free-standing or as an integrated building feature, the colonnades provide protection and join campus buildings. At ACC, the colonnades are a powerful feature that surrounds the courtyard while forming a continuous connection among Buildings A, B, C, and D. The colonnade feature is echoed by N Building, on both the inboard and outboard faces, creating a visual unity between the north and south halves of campus despite the lack of a physical link.

A significant aspect of the two-story colonnades is that they form a layering of columns, walkway and shading. In contrast to the outboard side of these buildings, which is primarily flat, the inboard side has depth and appeal, providing access to the indoor academics spaces while allowing for open air views and social interaction alongside the green space of the courtyard.

Loggias

Acknowledging the entry to a building or campus is important for establishing a welcoming and unified campus character. Loggias are one such architectural treatment that can acknowledge an entry while providing covering and protection for the pedestrian. One particular building on ACC campus makes use of loggias as a principal means of entry: S Building. These loggias are comprised of stone and brick columns, ornamental metalwork, curved and arched structural components, and curved metal roofing. In a different manner, at R Building - the Nolan Ryan Center - the primary entry is an angular glass and metal loggia supported by square glass and metal columns.

S Building loggia


R Building loggia

Form, Massing and Scale

If one were to assess the inventory of buildings at home on the campus, one would find that the vast majority of buildings related to a similar massing and scale indicative of a period of time in which they were built. It is not until the third phase of campus development that a different mass and scale are introduced onto the campus.

Phase I is characterized generally as brick clad single-story structures. Floor plates are narrow in depth, consisting of a rectangular plan with double-loaded corridors with classrooms, offices, and support spaces on either side. H Building is a single double-loaded corridor down the center of the building, while G Building is a double-loaded corridor that forms a continuous loop within the building. Entries to the buildings are denoted by a small outdoor covered area linked directly to circulation corridors.

Unique in its distinctive round form and layout, E Building is similar to H and G in that it is a brick clad single-story structure. Unlike H and G buildings, though, access to the interior spaces is directly from the outdoors, with exterior access protected from the rain and sun by the broad overhang building's iconic folded-plate roof form.

Phase II introduces the scale of two-story buildings A, B, C and D to the campus, along with a deeper floor plate and circulation pattern. While retaining the formal characteristics of the rectangular form, these buildings have a more complex arrangement of interior spaces and secondary internal circulation. These interior spaces are accessed on the two floors by means of a primary external circulation colonnade. N Building, although a single story, was designed for the later addition of a second floor. It displays a similar internal arrangement and is externally accessed via walkways with colonnades.

Phase III of campus development introduces different building forms, massing, and floor plates in R, S, and J Buildings. This phase is typified by entry loggias, pitched metal roofs and ridge lines, and detailed use of brick and stone. The largest of these three buildings, S Building, maintains the deepest floor plate on campus. The two-story plan arranges classrooms, lecture theatres, offices and support spaces along a looped double-loaded corridor. Formally complex, the façade of Building 'S' undulates along a symmetrical center line, recognizable by the clerestory roof monitor. Lacking windows along the primary faces of the façade, S Building is instead detailed with stone banding that begins at a water table base and banding that correlates to the ceilings and floors of both levels. Another unique feature is the faceted curved wall on the East façade of the building where the lecture theatres are located. Curved forms can also be seen on the curved roof lines of the façade along with the entry loggias and ambulance canopy.

FUTURE CAMPUS CHARACTER

Having examined of the past campus history and the existing campus features, it is clear that cohesive design guidelines will help ACC express its best features and priorities moving forward. The guidelines for future campus character are derived from the current image of the East Side campus, combined with the ELT's vision and aspirations for the devleopment of the college.

Natural Light and Views

One of the existing features, which numerous individuals recognize as a negative trait, is the limited amount of windows in some campus buildings or the narrow openings of windows in others. Understanding the psychological and health value of natural light and views, future learning environments should incorporate daylight and views to the outdoors through the use of windows. In addition to reducing eye fatigue, natural daylight provides the widest spectrum of light, which makes it much easier to see colors and textures.[1] Windows allow students and teachers to change perspective from their desk to the distant trees and buildings outside, providing important mental restoration.[2] While the integration of daylight introduces potential problems of glare, many daylight control features can be incorporated into the design of the building and the interior learning environment to prevent such issues.

Along with the tremendous qualities of daylight and views, transparency within the campus environment brings with it additional benefits. In coordination with other safety features, the thoughtful

1. Boyce, P., Hunter, C., & Howlett, O. (2003). *The benefits of daylight through windows.* Troy, New York: Rensselaer Polytechnic Institute.

2. Kaplan, R., & Kaplan, S. (2011). Wellbeing, Reasonableness, and the Natural Environment. Applied Psychology: *Health and WellBeing, 3*(3), 304-321.

The Smith Building at Clemson University was a source of inspiration for ACC's Executive Leadership Team. Architect: Lord, Aeck & Sargent in collaboration with Michael Keeshen & Associates.

EXPLORATION

CAMPUS CHARACTER

The ELT responded strongly to the flat, overhanging roof and calm courtyard space of the Jackson Community College Health Laboratory Center. Architect: Stantec.

placement of windows for purposes of visibility can make people feel safer by allowing them to see and be seen by others, while also providing natural passive surveillance - which can deter unwanted behavior - to improve overall campus safety and security.[1]

Another benefit of utilizing a controlled source of daylight is an increase in energy efficiency and energy savings. Numerous studies also indicate that daylighting as an alternative to artificial light can improve student and staff health, increase productivity and boost test scores in classrooms with daylight.[2]

Building Orientation

The significance of properly siting and orienting any future campus building should not be overlooked. Any future building should be responsive to the need to mitigate the strong sun and provide relieving shade. Along with the orientation, the massing and articulation of the building form should be responsive to this hot, humid climate; building and open space orientation should take advantage of solar angles and prevailing breezes.

Extending courtyards, loggias, and colonnades - as well as saving or planting shade trees - can create a more comfortable outdoor environment, especially during the summer months. Providing overhangs, sunshades and deeply recessed openings reduces heat gain and can enhance the overall campus character. These same shades and overhangs can also provide shelter from the heavy rains that sweep through this region.

1. Welsh, B. C., Mudge, M. E., & Farrington, D. P. (2010). Reconceptualizing public area surveillance and crime prevention: Security guards, place managers and defensible space. *Security Journal, 23*(4), 299-319.

2. Hershong, L., Wright, RL. and Okura, S. (2002). Daylighting impacts on human performance in school. *Journal of the Illuminating Engineering Society*

Campus Entry

Much comment has been made that the current campus lacks a strong sense of entry. A profound consideration for the future of the campus is the creation of an apparent and significant campus gateway. The existing angular entry between buildings A and B acts as the entry point; this area is a single-level breezeway with a second story overhead.

To enhance this entry, two different solutions could be employed. One option is to remove the second level entirely; this would create a large open space between Buildings A and B. However, this would sever the colonnade between the two buildings and eliminate useful second-story access. A less intrusive alteration to this location would be to retain a “bridge” between the two buildings while removing the second-level rooms above the opening.

A series of secondary entryways or “gateways” along the campus edge can be clarified and enhanced with a series of layered visual clues to provide students, staff, faculty and visitors a sense of arrival to ACC. These clues range from building forms to landscaping to signage; collectively they would communicate the identity of ACC, provide a welcoming arrival experience, and assist in wayfinding.

Colonnades

The colonnades of the campus are a feature appreciated by the entire ACC community and should be continued elements in the future of the campus. As new buildings are created according to the Master Plan, colonnades can provide protected links between new and existing buildings. A colonnade can be an integrated feature in the new building, as seen in Buildings A-D.

EXPLORATION

CAMPUS CHARACTER

OUTDOOR SPACES

A successful outdoor campus environment is memorable, restorative, and functional. It is the connective tissue relating individual buildings to one another, and facilitating the movements of people, information, and ideas. Outdoor spaces have the potential to provide inspiration to students, faculty and staff, enriching their campus experience; they can also express a sense of invitation and security to all visitors.

To be successful the outdoor spaces of a campus should operate within a well-orchestrated network that provides fluidly transitions. Campuses can employ myriad landscaping strategies to create an optimal use of outdoor space: courtyards, plazas, pathways, fountains, play fields, greenspace and edges. Many of these exist at ACC's East Side campus and should be considered for enhancement and expansion; they should also be utilized on the West Side campus. There are additional techniques and types of outdoor spaces that can be employed to integrate new buildings, enhance outdoor learning opportunities, increase social engagement, employ sustainable environmental features and support the health, safety and well-being of the campus community.

The Courtyard

The the ACC courtyard has always acted as the heart of the campus. Students speak often of enjoying the natural setting and relaxing between classes, faculty think of the courtyard as a "best feature" at ACC, and visitors are impressed by the shelter and shade found there. These sentiments toward the courtyard reflect its significance to the life and culture of ACC. Planning for the campus should acknowledge this significance and search for opportunities to enhance this courtyard, incorporate some of the courtyard's successful features into other areas of the campus, and interweave this culture of community-oriented outdoor spaces into the fabric of future buildings.

Landscaping

Alvin Community College is located in what is termed the Coastal Prairie. Although this ecosystem once covered most of Houston and the Gulf coast between Corpus Christi, TX and Lafayette, LA, it is now in tremendous peril - less than 0.10% of this ecosystem remains in a relatively pristine condition today. With the development of the campus' outdoor spaces and landforms, the reintroduction of indigenous species would not only lessen maintenance and irrigation requirements (compared to existing non-native turf grasses), it would also acknowledge the significance of the Coastal Prairie ecosystem that is ACC's home.

Left: Switchgrass / Right: Big Bluestem

Currently the campus maintains a healthy population of mature Southern Live Oak trees which provide broad shade canopies in and around the commons courtyard. The continued use of the Southern Live Oaks and other ecosystem appropriate plants – such as little bluestem, switchgrass and other native tallgrasses – and trees – such as Texas persimmon or sweet acacia - should be considered when selecting materials for future use on campus.

A specific landscaping opportunity exists near S Building, where the existing greenhouse and learning garden is in need of repair and enhancement. Through coordination with the Plant Sciences programs, this area could be dramatically enlivened by expansion of the learning garden to include more fluid plantings of species that will attract some of the 100 species of butterflies that live in the region, interspersed with seating areas and interpretive signs for visitors to learn about native flora and fauna.

Left: Sweet Acacia / Right: Texas Persimmon

EXPLORATION

CAMPUS CHARACTER

Outdoor Social and Social Spaces

Outdoor Social and Learning Spaces are places that express the culture, climate, and educational priorities of ACC. Research has shown that the richness of academic life is enhanced through informal encounters and learning outside of the classroom; there is also a recognized need for spaces of contemplation and reflection, considering that the demands of academic life can be stressful for both students and faculty. Providing the full spectrum of outdoor space types will enhance the already pleasant campus at ACC.

The use of informal social and learning spaces will be supported by providing trees or coverings for shade or protection from rain, and by providing a diversity of seating choices and settings. Coordination with food outlets and lively indoor activities will bring life to adjacent outdoor social spaces. As learning is not limited to classrooms, support for learning and technology should be extended outdoors; features would include fully-integrated WiFi and power access for students and faculty outdoors. The creation of more formal learning settings outdoors may include class-sized seating areas, writable surfaces, and a large group space that provides a performance space. Finally, a well-designed lighting system will increase personal comfort and safety, extending the use of the space from the day to night.

Outdoor learning space with swale seating and a chalkboard wall at Swarthmore College. Architect: EYP

Pedestrian Pathways

Existing and future pathways should be carefully considered and a hierarchy established through the use of width, lighting, and materials/paving patterns. These human-scaled paths should be comfortable day and night, with clear sight lines to open spaces and integration of well-designed lighting. Pathway design will be informed by a study of existing movement patterns and understanding of origins and destinations.

Hardscape, such as concrete sidewalks, is not the only method of creating pathways. The ELT would prefer to streamline ACC's existing dense network of paved paths down to a combination of paved main paths and smaller paths of pedestrian preference utilizing a material that mimics natural pathways. This system of pathways should also be created at the new West Side campus. The use soft surfaces or decomposed materials are acceptable for pathways to create texture and enhance the student experience, as well as assisting with drainage of water. Activity spaces and integrated seating along pathways should be considered as enhancements to the student experience.

The Diller-Von Furstenberg Water Feature on Manhattan's Highline Park, designed by James Corner Field Operations, Diller Scofidio + Renfro, and Piet Oudolf. Photo by Juan Valentin.

Water Features

The East Side campus has some existing water features, which the community enjoys a great deal. The ELT would like to add water features, especially in areas where they could mitigate drainage issues. Because of their interest in sustainable design, the ELT is interested in innovative water features that utilize low volumes of water with less impacts on natural surroundings.

Campus Art

The use of art in outdoor and indoor spaces has proven itself to create memorable settings that enhance the experience for students and visitors. ACC wants to create a more memorable, navigable campus and support student, alumni, and local artists. To this end, the ELT has proposed to allocate a portion of each project budget (up to 1%) toward art - either in buildings or in outdoor areas.

Architectural Walking Tour

After learning the architectural history of ACC's East Side campus, the ELT suggested installing interpretive panels on campus, so students and visitors can take a self-guided tour to learn about the development of the campus. These panels would showcase the history of ACC and give students a sense of pride in the ar-

chitectural features in their campus, as well as sparking interest in new career explorations. This walking tour, combined with the existing geology walking tour on the perimeter walking path and the potential native species garden that could be located near S Building, would create an attraction for visitors to campus as well, inviting them to stay and explore the ACC environment.

Sustainable Design

Sustainable building design is important for reducing energy use and creating a greener campus. Energy efficiency and conservation strategies primarily focused on HVAC, lighting, and consumption. These are important components of sustainable design, but sustainable design also incorporates a variety of other sustainable practices and principles. There are numerous factors taken into consideration for new building design and existing building renovation including site and ecosystem impact, storm water runoff control, water efficiency, renewable energy sources, sustainable building materials use, waste reduction and recycling use in construction and promotion and accessibility in building systems, indoor air quality, and other practices.

Sustainable design has not been a focus at ACC to this point, but the ELT is interested in realizing cost savings through more efficient buildings and landscaping. The East Side campus should be renovated and updated with a preference for sustainable solutions, and the ELT would like the West Side campus to have LEED certified buildings. Alvin Community College is committed to promoting the goal of a green campus for their students, faculty and staff as well as supporting a commitment to the environment.

WEST SIDE CAMPUS CHARACTER

Because the West Side Campus will be entirely new construction, the ELT wishes that campus to reflect a much more modern palette of materials. This opens up options of cast concrete, stone, and other composites that will reflect a more modern appearance.

Certain forms, however, should echo the existing East Side Campus; the square-columned colonnades and interior courtyard spaces were most valued as iconic of ACC's campus character. As the West Side campus is designed, steps should be taken to include the most valuable elements from the East Side: natural environments, thoughtful student spaces and outdoor areas, strategically placed pathways, and sustainable design features.

EXPLORATION

CAMPUS CHARACTER

CHARACTER PALETTE

While recognizing that the campus of ACC was first started over 50 years ago and has been created by a series of three distinctive building phases, each of the three building phase are characterized by a palette of materials, architectural elements and features that reflect the qualities of the particular time in which the buildings were built. There are similarities between Phase I and II, yet the differences outweigh the similarities. To create a campus character palette for future buildings it would be beneficial to briefly analyze the palette indicative of each phase and the manner in which materials were used.

Phase I: 1965 - 1975

Walls: Brick Gray Blend
Windows: Vertical Clear Aluminum Frame
Doors: Clear Aluminum Frame with Tinted/Clear Glass
Columns: Square Column Cover
Roof: Built-Up Flat and Folded Plate at E
Roof Edge: Anodized Metal Fascia

Phase II: 1975 – 1990

Walls: Brick Taupe Blend
Windows: Horizontal Bronze Aluminum Frame and Glass
Doors: Aluminum Frame with Glass/Painted Metal
Columns: Square Brick
Roof: Built-Up Flat
Roof Edge: Anodized Metal Fascia

Phase III: 1990 - Present

Walls: Brick Solid and Stone
Windows: Clear Anodized Aluminum
Doors: Clear Aluminum Frame with Glass/Painted Metal
Columns: S: Round Brick & Stone/R: Square Aluminum Frame with Glass
Roof: Metal
Roof Edge: Light Colored Fascia (fascia on existing buildings painted green and yellow)

H Building: cladding, window, and fascia

B Building: cladding, columns, and colonnades

S Building: cladding, stone detail, rooflines

EXPLORATION

CAMPUS CHARACTER

		EXISTING	RETAINING	REINTERPRETING	ADDING
MATERIALS	Walkways	 Warm Aggregate  Rough Flagstone  Smooth Flagstone  Brushed Concrete	Brushed concrete	Replacing some paved paths, and introducing new paths, with materials that resemble a natural setting (e.g.	Path surfaces that resemble natural settings
	Brick	 Cool Gray Blend  Warm Brown Blend  Uniform Deep Red  Uniform Light Red	Brick as the primary material at East Side campus	Brick should be replaced with a more modern material at the West Side campus	Cast concrete wall panels
ELEMENTS	Windows	 Narrow Vertical  Large Grid  Horizontal Band  Full Glazing	Large grids Horizontal bands	Narrow vertical form can appear, but should be used in multiples or paired with additional glass, to allow more natural light to penetrate the building	Larger expanses of glazing to create a modern appearance
	Columns	 Square Brick  Square Glass  Round Brick + Stone  Square Acrylic	Square brick columns, especially along colonnades, at East Side	West Side should retain square columns along colonnades, but material may vary Existing square acrylic columns should be replaced with square brick columns	West Side Campus could utilize different materials for familiar forms
	Covered Entries	 Peaked Glass  Minimalistic Flat  Curved + Detailed	Creating sheltered areas near entry/exits	*(none specified)*	Colonnades and covered entry ways should be extended to cover entry areas and create additional covered social areas outside of buildings
	Rooflines	 1960's Flat  Folded Plate  Low Curve  Peaked	1960's flat	Peaked and curved rooflines	*9none specified)*

Stantec

EXPLORATION

IDENTIFICATION OF PRIORITIES

Once a 10 year goal was established for each campus, the planning team worked with stakeholder groups to identify priorities for each project planned in the short term.

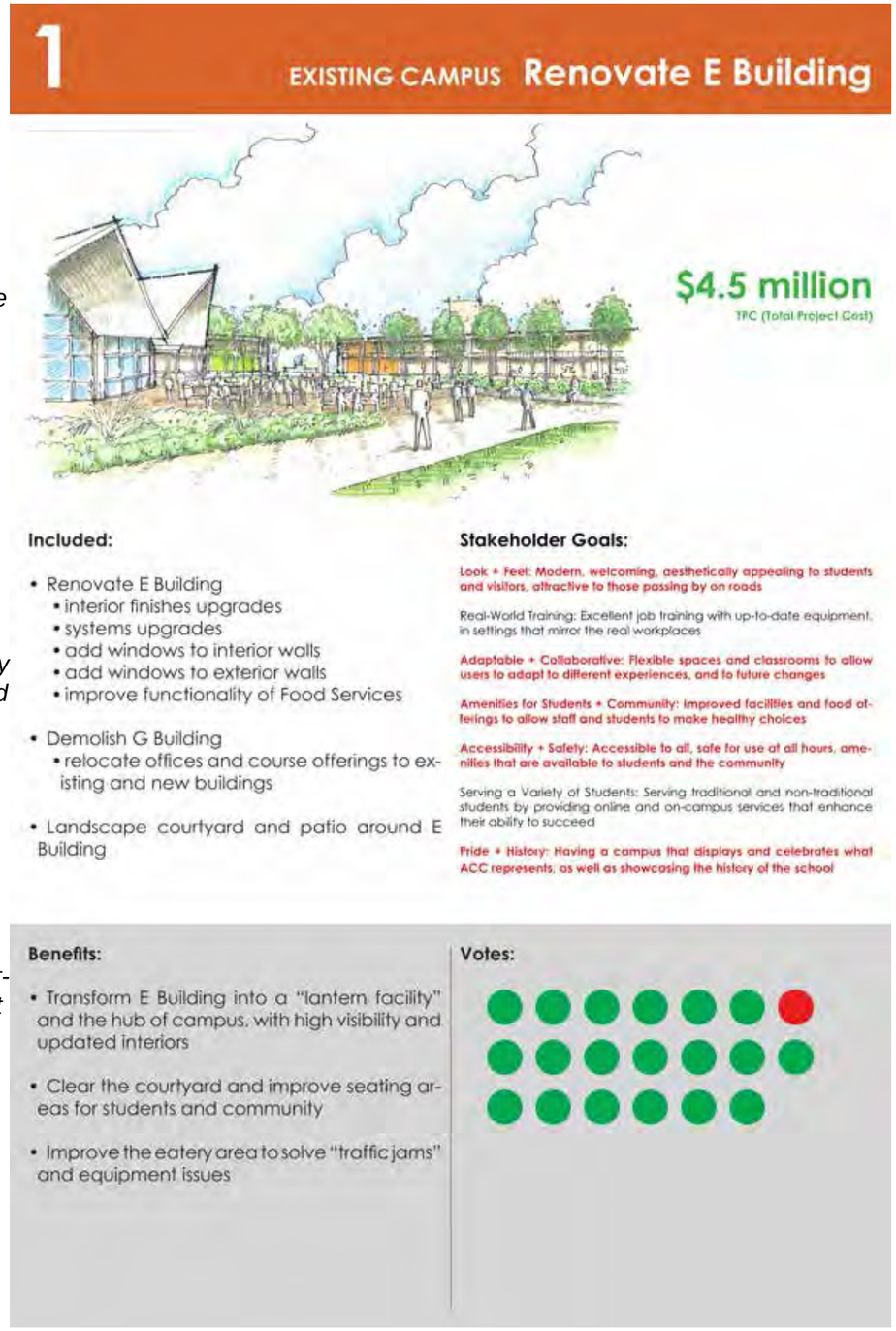
COMMUNITY PRIORITIES

Ten projects were presented to a Long Range Facility Commitee (LRFC), and participants were invited to prioritize those they felt were most needed in the short term by placing a green dot on them, or to defer them by placing a red dot on them. The results of this activity can be seen on the facing page.

Based on this input, the Fitness Center project and the changes to landscaping at the main entry were moved to later phases. An additional high-priority project was suggested by the community: expansion of the Nolan Ryan Center to better serve ACC's Culinary Arts program and the event needs of both ACC and the larger community. Because the planning team had envisioned this as a possible long-term project, it was moved up in the priority list to reflect the community's input. The focus group was also asked about the extent of this expansion, and their input was used to determine phasing for that project.

EXECUTIVE LEARNING TEAM PRIORITIES

The Administration and ELT at ACC were presented with the community's input on prioritized projects. Based on the community's prioritization and the ELT's plans for adding, removing, and expanding programs, and the need for each program to have adequate space during renovations and new construction, a timeline of projects was formed.



Project Title

Concept image or figure

Estimated Total Project Cost, adjusted for inflation

A brief summary of work included in the project

Stakeholder Goals marked in red are goals addressed by this project, in particular

Benefits of undertaking the project

LRFC members were invited to place a green dot if they supported undertaking the project during the Short Term Phase of the of the Facilities Master Plan and a red dot if they did not support it during that phase; dots shown are actual votes received by each project

EXPLORATION

IDENTIFICATION OF PRIORITIES

1 EXISTING CAMPUS Renovate E Building

$4.5 million

Included:

- Renovate E Building
  - Interior finishes upgrades
  - Systems upgrades
  - Add windows to interior walls
  - Add windows to exterior walls
  - Improve functionality of Food Services
- Demolish G Building
  - relocate offices and course offerings to existing and new buildings
- Landscape courtyard and paths around E Building

Stakeholder Goals:

Benefits:

- Transform E Building into a "lantern facility" and the hub of campus, with high visibility and updated interior
- Clear the courtyard and improve seating areas for students and community
- Improve the exterior area to solve "traffic jam" and equipment issues

Votes:

2 EXISTING CAMPUS New Tech Building

$18 million

Included:

- New building to house new and existing programs:
  - AAS CNC Machining (new)
  - AAS Occupational Safety w/HAZWOPER (new)
  - Certificate in HVAC (new)
  - AAS Supply Chain Management (new)
  - AAS Industrial Design (new)
  - AAS Industrial Maintenance (new)
  - AAS Computer Information Technology (new)
  - Welding (relocated from D Building)
- New rooftop observatory for Astronomy
- Additional parking area
- Rapid Prototyping facilities (eg 3-D printing)

Stakeholder Goals:

Benefits:

- Update training spaces and equipment for technical and workforce programs
- Anchor the southern end of campus
- Include student hub and collaboration spaces, easily accessible from all parts of campus
- Move observatory up to a better viewing level
- New parking to serve Tech Building, as well as additional parking for E Building

Votes:

3 EXISTING CAMPUS Optimize Building Condition

$6-12 million

Included:

$6 Million

- Address life safety, code, and accessibility concerns in existing buildings

$12 Million

- Address building optimization issues in all buildings, other than those slated for renovation or demolition, as well as baseball field and club house
- Add energy efficient systems upgrades and window replacements

Stakeholder Goals:

Benefits:

$6 Million

- Bring buildings up to standard
- Address possible code issues
- Improve accessibility

$12 Million

- Improve aesthetics with updated finishes
- Improve energy efficiency, providing monetary operation and maintenance savings

Votes - $6 Million:

Votes - $12 Million:

4 EXISTING CAMPUS Classroom Upgrades

$12 million

Included:

- Right-size classroom spaces to fit ACC class sizes
- Create classroom space standards to increase flexibility in course scheduling
- Upgrade furniture and equipment for classrooms

Stakeholder Goals:

Benefits:

- Offer classroom technology that reflects current educational standards
- Create flexible spaces that adapt to current and future teaching styles
- Improve the look and function of classrooms
- Make scheduling efficient and easy
- Increase faculty comfort and effectiveness across campus with equipment that is standardized to all classrooms

Votes:

5 EXISTING CAMPUS Student Spaces

$1.5 million TPC (Total Project Cost)

Included:

- Renovate selected spaces to create student study, collaboration, and social spaces
- Create Outdoor Seating, Small Group Student Commons, and Quiet Lounge spaces easily accessible across campus
- Create student space standards
- Upgrade furniture in public and student spaces

Stakeholder Goals:

Benefits:

- Clearly designate quiet and noisy student work areas to provide spaces for students to focus and study, or work in groups, without leaving campus
- Provide inviting areas for students and staff to relax and socialize without leaving campus
- Distribute student spaces more evenly across campus to provide more private areas for visitors and ACC community

Votes:

6 EXISTING CAMPUS Site + Safety

$3.5 million

Included:

- Natural access controls, such as clear boundaries to campus and obvious entryways to public areas
- Technological access controls, such as RFID card readers on exterior doors
- Provide night lighting across campus, including walking trail
- Make site repairs for safer pedestrian walkways and traffic circulation
- Provide emergency blue-light call stations across campus

Stakeholder Goals:

Benefits:

- Create a sense of territoriality by delineating private, semi-private, and public spaces
- Utilize natural surveillance with glass and clear sightlines
- Minimize out-of-the-way hiding areas in outdoor areas
- Show a sense of pride and caring for ACC campus

Votes:

7 EXISTING CAMPUS Fitness Center

$40 million

Included:

- Create a Fitness Center for use by students, staff, community members, and ACC programs, including:
  - cardio-vascular exercise equipment
  - weight training equipment and free weights
  - multi-purpose room for yoga, dance, etc.
  - basketball court with bleachers (relocated)
  - general education classrooms
  - administrative office and meeting space
  - locker rooms
  - outdoor tennis courts
- Create additional parking

Stakeholder Goals:

Benefits:

- Create healthy living options for students, staff, and community
- Promote well-rounded student development
- Allow students to socialize and exercise, even without leaving campus
- Attract students by offering a modern lifestyle facility

Votes:

8 EXISTING CAMPUS Landscape Entry

$7 million

Included:

- Remove A/B Building bridge connection
- Relocate Administrative offices
- Landscape entry boulevard
- Partner with YMCA to extend Childrens Drive

Stakeholder Goals:

Benefits:

- Improve traffic circulation at main entry
- Improve sight lines into heart of campus
- Showcase courtyard and B Building
- Beautify cast, stately main entry area

Votes:

9 EXISTING CAMPUS Renovate N Building

$6.9 million

Included:

- Build on current grant to improve gun range
- Create additional spaces for Criminal Justice and Public Safety program growth
- Consolidate forensics lab from D Building to N Building
- Expand Process Tech Program

Stakeholder Goals:

Benefits:

- Create a stronger identity for Criminal Justice, Police Academy, and Public Safety by co-locating in one building
- Celebrate the success of Criminal Justice programs
- Expand Process Technology facilities to accommodate rapidly growing program needs
- Improve building highly visible from Mustang Road for curb appeal

Votes:

10 NEW WEST CAMPUS New Center Building

$45 million

Included:

- Create first building at new campus
- Spaces including:
  - Library
  - Office space
  - Classrooms
  - Learning Commons
  - Computer labs
  - Learning center / Study Hall
  - Tutoring
  - Meeting / working
  - Learning spaces including general purpose classrooms, computer labs, multi-purpose science labs, and multi-purpose healthcare labs
  - Cafeteria
  - Bookstore
  - Student gathering spaces/Commons
  - Outdoor seating
  - Café
  - Vending
- Programs to include:
  - EA General Studies
  - AAS Business Technology
  - AAS Office Technology
  - AAS Accounting
  - AAS Management
  - AAS Computer Information Technology
  - Certificate Computer Technology
  - AAS Human Services
  - AAS Paralegal Studies
  - AAS Process Technology
  - AAS Health Information Technology
  - AAS Respiratory Technology

Stakeholder Goals:

Benefits:

- Ability to offer a variety of programs for the current rising district
- Potential to attract new students in quickly developing areas on Western edge of Rising District
- New student population will provide increased tuition and forecasted contact hours, which leads to direct funding for ACC

Votes:

Stantec