

## **Existing Conditions**

The Polytechnic campus is ASU's latest campus. Founded in 1996 on a former Air Force base, it serves the rapidly growing southeast valley. Today the campus consists of 2.14 million gsf of buildings located on approximately 613 acres. As of fall 2011, total enrollment at the Polytechnic campus was 4,877 students.

ASU shares the former Air Force base with two community colleges, the Embry-Riddle Aeronautical University, a Veteran's Administration clinic, Air Force research labs, and an Army Reserve Center. Orderly growth, sustainability, and the creation of a unique campus identity are Polytechnic's future challenges and greatest opportunities.

## **Projected Growth**

The 2020 enrollment target for the Polytechnic campus is projected at 15,000 students, the same as projected in the 2006 Campus Master Plan. This target could result in a future demand of up to 1.49 million gsf of new academic, research, and support functions.

The Polytechnic campus houses 27% of its current student population on campus in 1,306 beds in former military housing, comprised of one-story single-family structures. The ASU Student Affairs Residential Life Department has set a target of housing 25% of students on campus. This would equate to a total of 3,750 beds, for an addition of 2,444 new beds, not including any replacement. A wider variety of student housing types will need to be constructed on the Polytechnic campus. A first phase residence hall with 300 beds, dining, student recreation center, and recreation fields are in design or under construction.



existing conditions (2011)

## **Planning Challenges**

The creation of an orderly, well-defined collegiate campus out of a former Air Force base and its facilities is the largest challenge for the Polytechnic campus. Creating a coherent vehicular circulation and wayfinding system and establishing a sense of place and identity among so many other institutional users on the 613-acre site is an additional challenge. However, as a new campus, Polytechnic has the greatest opportunity to embrace sustainable development and define what it means to be a college campus in the 21st century.

The Midvale and Germann archeological sites occupy most of the south half of the former base, and pose constraints and challenges to future development.

## Recommendations

The Polytechnic Campus Master Plan Update proposes sites for the construction of up to 2.8 million gsf of new academic, research, support, and residential development, including replacement space of 92,000 gsf. Of this total, the plan proposes a net gain of almost 1.8 million gsf for research, academic, and support uses, and almost one million gsf for new student housing, doubling the current residential square footage on campus.

The master plan for the Polytechnic campus envisions the continued development of a cutting edge, contemporary, sustainable campus set within a native desert landscape. The framework for Polytechnic establishes a strong east-west axial organization of pedestrian malls and future buildings framing a central commons that holds the library, student union, student services, and administration.



proposed conditions (2020)





## **Key Elements of the Polytechnic Plan**

The new Innovation Way ring road currently under construction will create a stronger campus boundary and circulation system for the Polytechnic campus. Proposed east-west pedestrian malls and stormwater arroyos will define the central commons of campus, with space for new administrative and student service functions and an expansion to the Student Union. Within the commons, a central green will provide an oasis-like counterpoint and informal gathering space. New three- to four-story academic and research space creates the physical frame around the commons. Larger research footprints on South Innovation Way may provide opportunities for private or governmental research partnerships.

New north and south residential quads are proposed with pedestrian malls bisecting the commons, keeping the campus walkable.

Two gateway sites at the western and eastern edges of the campus provide future opportunities for a signature architectural language and image for the campus. Future solar installations over surface parking will help meet the energy goals of the university. The Midvale and Germann archeological sites south of the central campus are reserved for the long-term needs of the campus.

#### Enrollment 4.887 15.000 Beds 1,306 (26%) 3,750 (25%) Total GSF 2.1 mil. 4.8 mil. Academic/Research GSF 1.1 mil. 2.6 mil. 3,167 3 750 Parking Spaces Academic/Research/Support Acres 295 **Development Acres** 318 Total Acreage 613 613

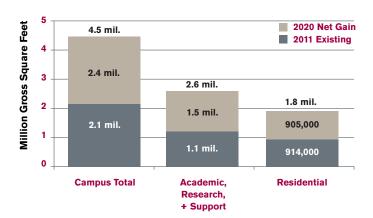
## **Architectural Principles**

The Polytechnic campus is designed on the orthogonal grid established by the Army Air Corps in the 1940s, typified by the dispersed and low-slung character of the former military structures. However the architectural design of new campus buildings exhibits a strong response to the desert climate and to the technology, engineering and research focus of the programs they house. Their articulation and cohesive integration with an environmentally-sensitive desert landscape has created a distinctive, contemporary model for campus design. As the character of the campus transitions into a more defined University setting this newer palette should be reinforced.

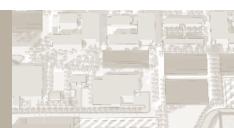
## **Landscape Principles**

The development and implementation of outdoor spaces is crucial to the character, coherence, and comfort of the ASU campuses. The spaces between the buildings on campus form the common campus environment, and will be the medium that helps to create the identity and sense of place unique to each campus. The following landscape design principles are common to all campuses:

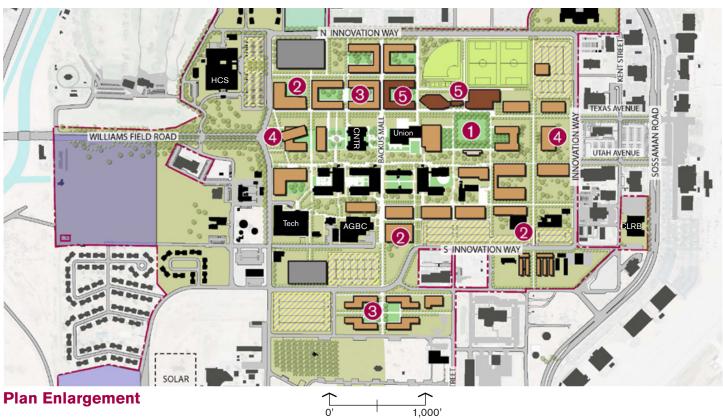
- demonstrate ASU's commitment to sustainability through best management practices
- create a cohesive identity and sense of place throughout the campus by establishing a unified ground plane
- 3. landscape architectural design must consider ways to sensitively mitigate and respond to the Sonoran Desert climate for human comfort



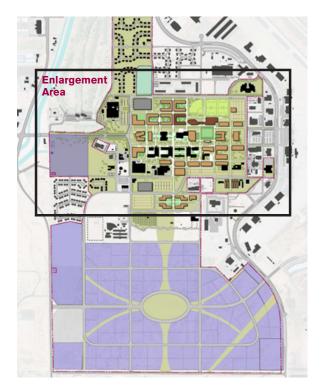




## **Polytechnic Master Plan**



**Plan Enlargement** 



## illustrative master plan key elements

- 1 Central green
- 2 Academic and research expansion
- 3 Future residential development
- 4 Gateway sites, signature architecture
- 6 Phase I residential, dining, and student rec center

#### LEGEND

- PROPOSED DEVELOPMENT
- PROJECTS IN PLANNING, DESIGN, OR CONSTRUCTION
- PAVILION STRUCTURE
- PROPOSED PARKING STRUCTURE
- **EXISTING CAMPUS BUILDING**
- FAITH-BASED COMMUNITY
- FUTURE DEVELOPMENT OPPORTUNITIES
- PROPERTY LINE

**Polytechnic Campus Overall Plan** 



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# **Design Aspirations** for a New American University

#### 01. Leverage Our Place

ASU embraces its cultural, socioeconomic and physical setting

### 02. Transform Society

ASU catalyzes social change by being connected to social needs.

## 03. Value Entrepreneurship

ASU uses its knowledge and encourages innovation.

## 04. Conduct Use-Inspired Research

ASU research has purpose and impact.

#### 05. Enable Student Success

ASU is committed to the success of each unique student.

## **06. Fuse Intellectual Disciplines**

ASU creates knowledge by transcending academic disciplines.

## 07. Be Socially Embedded

ASU connects with communities through mutually beneficial partnerships.

## 08. Engage Globally

ASU engages with people and issues locally, nationally and internationally.





