

4.0 Key Planning Issues

## 4.0 KEY PLANNING ISSUES

### 4.1 PLANNING ISSUES - GENERAL

One of the challenges of creating a meaningful and responsive Master Plan is the need to integrate many different types of information and issues from a variety of sources and perspectives.

Some issues concern global topics, such as campus culture, while others can be quite specific; for example, the need to repair a faulty boiler system.

Issues highlighted in this Master Plan include, but are not necessarily limited to:

- Existing Campus Capacity and Space Utilization
- Campus Utility Infrastructure and Capacities
- Safety and Security
- Accessibility (ADA compliance)
- Sustainability, Campus Identity and Wayfinding
- The Learning Environment and Technology
- Need for Standards (Space, Materials and Technology)
- Future Expansion Potential

Dealing with Campus “capacity” is one of the considerations of the planning process. How does the campus provide for future expansion? The present campus is overbuilt, given current utilization.

There are significant safety or building code issues that need to be addressed? These kinds of issues fall into the “MUST DO” category for upgrade consideration. If a boiler system or power system fails, safety is compromised.

The campus is required, by law, to be accessible to persons with disabilities. Barriers to accessibility have been identified and must be remediated.

Other issues can be seen as being in a less urgent category of being “NICE TO DO”. Sustainable design, including energy efficiency considerations as a goal. It is socially responsible, and also cost-effective over the life-cycle of the campus, in many cases.

“Campus Identity” is a term that questions: How does the campus cohere, as a whole? How does the academic community view their campus? Do they feel that they are in a unique place? Are they proud of their Campus? Or, do they feel a lack of mutual respect, evidenced by outdated facilities and inadequate maintenance. This report acknowledges the many good things about the Gavilan Campus, and also makes recommendations for specific improvements.

The “smart classroom” and general use of computer and networking technology in the classroom is an educational delivery ‘tool’ and trend that has arrived. Many college mission statements refer to the desire for “innovation”, but what does that mean? This report describes trends and provides direction on how technology can be leveraged for added educational effectiveness.

Finally, future expansion potential is discussed. A Master Plan is a living document that is under the process of continual renewal. Student populations may fluctuate, or educational needs and methods may change, and new or different facilities may be desirable. This report identifies locations on campus for possible new buildings with implications for expansion.

## 4.2 CAPACITY AND SPACE UTILIZATION ISSUES

“Capacity” is a term that is used by college facilities planners to understand how much physical space a given academic program requires.

Merle Cannon was retained by the District to study this important area. Cannon prepared a document entitled “Guidelines for Facility Planning – Improving Capacity to Load Ratios Gavilan College” (included in Appendix Section 9.2).

In May 2005, the District submitted a Five-Year Construction Plan to the State that indicated capacity-to-load ratios for 2005, as follows:

<u>Space Type</u>	<u>Ratio (%)</u>
Lecture	184%
Laboratory	113%
Office	95%
Library	101%
AV/TV/Media	79%

The conclusion of the Cannon Study is that three of the five space types do not require any expansion and office space requires only minimal change. The deficiency in AV/TV/Media translates into 1700 sq. feet, which is minor for overall campus planning purposes.

The importance of this data is that the California Community College Chancellor’s Office (CCCCO) uses this information to determine which colleges it will fund for expansion and/or remodel.

Given the current situation, Gavilan would not be eligible for expansion money from the State without improving overall space utilization and capacity-to-load ratios.

The report goes on to make recommendations of concepts that can be employed during renovation and remodel of facilities to improve the capacity-to-load ratios, thus, improving State funding eligibility.

An obvious approach would be to increase enrollment, measured in FTES (full time equivalent students).

Other strategies outlined in the Cannon Study include:

1. Reconfigure classrooms to be more consistent with the scheduled sizes of the class sections to be served.

2. Employ a multi-use philosophy in the development of space that allows for “peak load” lecture instruction
3. Create breakout lecture area within large vocational labs rather than creating separate lecture rooms
4. Employ the policy of general use classrooms; less departmental-specific
5. Remove or reduce ineffective space-use from the inventory (modulars)
6. Use the classification of meeting rooms rather than conference rooms
7. Improve the net-to-gross building ratios
8. Adopt a policy of shared and mixed discipline usage of computer labs

Items 4 and 8 involve the academic culture of the College and require that departments be willing to share space with each other, for the benefit of the College, as a whole.

### **4.3 CAMPUS INFRASTRUCTURE**

The original Gavilan Campus was constructed in 1967 and 1968, and has operated continually, largely without significant renovation.

As such, the buildings and campus utilities are approximately 40 years old and are in need of significant attention—both, repairs and modernization. Campus maintenance has done a remarkable job of repair/preservation, given the limited funds available, to date.

A report entitled Gavilan College Energy Infrastructure Assessment Report prepared by Kitchell (May 3, 2002) identifies the existing conditions of the facility. Information on the FUSION web site indicates the dollars in maintenance funds that would be required to repair the existing facilities.

BFGC Architects Planners, with its consultants, prepared a subsequent report entitled Gavilan Community College Infrastructure Assessment (April 28, 2005). This report identified specific life-safety and emergency measure concerns associated with mechanical and electrical equipment at the College. Tentative budgets were identified for the repair of these deficiencies.

#### **A. GENERAL OVERVIEW**

1. Four (4) existing working boilers are outdated and having problems (safety and service).
2. Existing underground heating loop failures are causing the boilers to work overtime, stressing boilers and wasting energy.
3. Electrical capacity on campus is insufficient to allow for current power/signal/communications/technology (main service and distribution), as well as added air conditioning loads for modernized projects.

4. Many spaces/buildings on campus are not air conditioned (comfort and utilization issue).
5. Most buildings are not thermally insulated to meet current energy code requirements (energy waste).

#### **B. PROPOSED STRATEGY**

1. Due to obsolescence, or near obsolescence, of existing infrastructure systems, it is recommended that main services be replaced and/or upgraded.
2. The majority of these main lines run down the main walkway running north south along campus (“central spine”).
3. It is proposed that existing services remain operational, while new services are being installed in parallel.
2. Costs for this work needs to be aligned with the money allocated in the Measure-E Bond.

#### **4.4 SAFETY**

- A. Discussions were held with District Administration and Maintenance staff regarding safety concerns.
1. Illumination at night is inadequate and is a concern. This problem is compounded by the fact that there is only one Security Officer on duty for the entire campus during the evening. When power outages occur during evening sessions, there is inadequate lighting to safely evacuate students from Labs/Classrooms to their vehicles.
  2. The possibility of blue (emergency) telephone boxes located strategically around the campus was discussed. One problem, however, is with only one Security Officer, who will be available to respond?
  3. There have been cases of cars being vandalized or robbed in the parking lots. Luckily there haven't been major personal attack or injury incidents, thus far.
  4. The Kitchell Infrastructure Study highlights inadequacies in the lighting levels in both the parking lots and in the campus walkway system.

#### **B. STRATEGIES**

1. Increase the site lighting along major pedestrian pathways
2. Increase the lighting in the parking lots and pathways thereto
3. Possibly install emergency phone system/stations

## **C. BUDGET**

This category has been allocated \$8M to remediate identified needs.

### **4.5 ACCESSIBLE DESIGN ISSUES**

The Americans with Disabilities Act was introduced in 1992 as Civil Rights legislation.

Gavilan College is situated on a hilly site, which presents challenges to allowing for site access by people with disabilities.

A study was done by Disability Access Consultants, titled "Accessibility Compliance Survey", dated July 27, 2005. A team of experts spent several days on the Gavilan campus surveying during the month of May 2005. They produced a report that is very extensive and identifies all access issues on the site, by issue, remedy and budget for same. Specific facilities recommendations are included in the respective project's scope-of-work.

A general budget of \$2.5M has been allocated in the Bond language to remediate accessibility on-Campus for site and building issues.

California State Building Code requires that renovation projects bring buildings and path-of-travel into full access compliance in most cases.

Identified issues that occur at Gavilan include:

1. Pedestrian bridge to P.E. area is too steep for A.D.A. compliance.
2. Site walks and ramps are too steep and are not in compliance in some areas.
3. Door widths are too narrow and not in compliance.
4. Door pulls and thresholds are not in compliance.
5. Toilet rooms are not in compliance.
6. Counter heights are not in compliance.
7. Need for assisted listening stations in assembly or meeting spaces.

A public posting and review process was undertaken to allow the Gavilan College community the ability to comment on accessibility issues and proposed remedies.

### **4.6 CALIFORNIA ENVIRONMENTAL QUALITY ACT ISSUES**

The California Environmental Quality Act (CEQA) was introduced in 1970 with the intent that all significant construction projects be reviewed for potential negative impacts on the environment.

Issues that could be considered impacts include:

1. Pollution
2. Disturbance of endangered species habitat
3. Disturbance of cultural, historical or archaeological artifacts
4. Traffic impacts
5. Sound impacts

An environmental consultant, David J. Powers and Associates, was consulted and their opinion is that these projects are Categorical Exempt.

The rationale is that the campus is an existing facility and there are no building additions planned.

There are no known endangered species on the main campus.

Traffic will not be increased materially, beyond existing conditions.

In conclusion, CEQA should not be an issue for the bond projects on the Gavilan College Campus.

#### **4.7 SUSTAINABLE DESIGN ISSUES**

Issues concerning energy efficiency, building and operating facilities in a way that is responsible to the planet have been grouped together under the term Sustainable Design.

Gavilan College is in favor of responsible and environmentally sensitive design, construction, and operation of its facilities.

Sustainable design improves building performance and efficiency and also protects the health of its occupants.

Successful sustainable design can be defined as comprising a balance between environmental and cost considerations, while also meeting the functional requirements of the facility.

Sustainable design addresses the following principles:

- Site Selection
- Energy Efficiency
- Materials Selection
- Water Conservation
- Indoor Environmental Quality
- Operations and Maintenance

The United States Green Building Council (USGBC) is a widely recognized leader in the area of quantifying the sustainable characteristics of building projects. To this end, the USGBC has produced a standard known as LEED (Leadership in Energy and Environmental Design). This document is essentially a checklist and grading scale.

The LEED system contains a checklist (Appendix 9.6) which can be used as a way to explore potential sustainable design strategies.

It is proposed that for each project a part of the design process will be a review of the LEED checklist with the District and a decision can be made as to the extent of concepts to be implemented.

The main deterrent to implementation is initial cost. Studies have shown that a LEED Platinum building is prohibitively expensive for almost all facilities, whereas a LEED Certified building can be obtained with an upcharge of from zero to 10%.

#### **4.8 CAMPUS IDENTITY AND WAYFINDING**

The sense of identity, of being a unique place, is important to every college campus.

Gavilan College is fortunate in being located in a beautiful natural setting, with strong architecture and landscaping that is in harmony with the environment and sensitive to the local context.

Areas for improvement that have been identified include the lack of a strong “front door” to the campus, including ‘entry’ signage.

The existing main walkway that runs north-south between Cosmetology, the Theater and the P.E. facilities, creates a strong circulation “spine” for the campus and is anchored by the Library and Student Services buildings in the center. The pedestrian bridge north of the P.E. facility is visually appealing.

The main entrance to the campus itself from the parking lots is at the north end of the main walkway, between the Cosmetology and Theater buildings. At present there is no real architectural treatment of this entry point. Current traffic bollards and the bus stop create a somewhat negative impression.

Unified systems of exterior lighting, signage, and landscape furniture could be introduced to strengthen the overall identity of the campus.

New features, such as a possible entry gateway structure at the north end of the walkway, could be designed in a character that reinforces the existing architectural character of the campus buildings.

#### **4.9 THE LEARNING ENVIRONMENT AND THE ‘SMART CLASSROOM’**

A key building block to delineate is the concept of “The Learning Environment”.

There is wide recognition that “spaces for learning” at the college level include not only the traditional classrooms and laboratories or “formal” spaces, but many other spaces – both indoor and outdoor.

The current college student has been described in the book Educating the Net-Gen by Malcolm Brown, as follows: “Net-Gen students, using a variety of digital devices, can turn almost any space outside the classroom into an informal learning space.” Spaces such as hallways, plazas, and faculty offices become opportunities for what is sometimes referred to as places for a “teachable moment.”

It is generally understood that technology (wireless computing) is becoming more prevalent and that this has implications for classroom design.

The term “smart classroom” is often used to describe a technology enabled learning environment.

It is important to understand that a “smart classroom” is more than simply introducing an LCD projector and computers to a traditional classroom space.

Careful thought needs to be involved in exploring, before arriving at a solution. Exactly what types of learning activities are planned to be facilitated in classroom and other learning environment spaces and what infrastructure is therefore needed to allow these activities to happen?

The focus in education has shifted from “teaching” to “learning”. The student becomes a more active participant in the process, and is in many ways a consumer of information.

A process is suggested whereby Gavilan College will come to collaborative agreement on key “learning principles”, which are based on the college’s values. These learning principles become the driver behind the design process and are the yardstick by which decisions are measured.

#### **4.10 KEY CONCEPTS**

##### **A. LIFE CYCLES**

Buildings are physical structures that have much longer usable life spans than the technology that they contain.

It is common for computer hardware to be replaced every two to four years to keep up with technology advances. Furniture systems also advance and may be replaced to improve functionality.

##### **B. LEARNING STYLES**

Modern educational theory recognizes that students tend to retain knowledge better through active involvement. Static lecture formats are often less effective than group and otherwise active learning.

The educational environment needs to support varied learning styles, including small and large groups.

##### **C. TEACHING TECHNOLOGIES**

The recent adoption of tools such as course management systems and the potential availability of wireless access to classrooms and labs continue to change practices in the classroom.

These tools are allowing teachers and students to discover new and potentially better ways to communicate and interact. At a basic level, many community college faculty are uploading course information to the internet. Discussion groups, message threads, etc. are happening. This will probably increase with time.

##### **D. PEOPLE ARE AT DIFFERENT LEVELS**

It should be recognized that the Gavilan College community is diverse. Few are at the same level utilizing technology. Some are embracing it; others are actively resisting. It is not the place of the Master Plan to make value judgments, but technology, as a tool, appears to be the rightful direction for the community, as a whole.

Many students are more comfortable with technology than their instructors.

Therefore, training and support systems are critical to the success of a smart classroom program.

#### **E. ESTABLISHMENT OF LEARNING PRINCIPLES.**

(To be verified with Administration/Faculty)

#### **F. IDENTIFICATION OF INSTITUTIONAL CONTEXT**

Gavilan, like all other institutions, has an existing culture. At the same time, change is necessary to meet the needs of today's students and to compete in the educational marketplace that prepare students to compete in a global economy.

The question is: How much change is Gavilan willing to accept?

It is recognized there may be some innovations for which the institution is not ready or otherwise, does not have the budget to support.

#### **G. FLEXIBILITY**

This issue also correlates with the identified concern about capacity at Gavilan.

There is a need for classrooms and laboratories, and in particular, more expensive educational spaces such as smart classrooms to be shared across departmental disciplines.

The academic community needs to accept and promote this concept.

In fact, sharing space has the potential to promote a greater sense of community and multidisciplinary communication, which is a positive value.

### **4.11 STEPS IN THE PLANNING PROCESS FOR SMART CLASSROOMS**

#### **A. SPECIFYING LEARNING PRINCIPLES**

The planning team needs to identify learning principles that are meaningful and relevant to the institution.

An example of a learning principle might be "to promote collaborative inquiry across the disciplines". This learning principle directly translates into physical planning.

It is recognized that different departments may have different educational philosophies and the intent is to accommodate this through flexibility.

#### **B. LEARNING PRINCIPLES LEAD TO LEARNING ACTIVITIES**

Once the learning principles have been established, the Planning Team must determine specific learning activities that facilitate these principles.

For example, if collaborative learning is a goal, small-group work, study teams, and the use of on-line communities are some activities to promote this objective.

## **C. DEVELOPING DESIGN PRINCIPLES**

Once learning activities have been identified that facilitate learning principles, the physical space can be shaped/equipped.

The key issue is to clearly articulate what students and teachers should be able to do in the space.

### **4.12 NEED FOR STANDARDS**

Standardization is one of the most useful strategies for providing campus, and controlling costs and quality. This report provides recommended standards for space allocations and also materials and equipment and technology standards.

Facilities Standards should contain policy and technical criteria to be used in the programming, design, and documentation of buildings at Gavilan College.

The Facility Standards will establish the minimum requirements for design, and establish a level of quality of material and method in order to be consistent throughout the District.

Since the Facilities Standards will contain general criteria, there may be occasional conflicts between the standards and specific requirements for projects. These may be addressed on a case-by-case basis.

## **A. BUILDING PROGRAM**

Each building shall be designed according to a Building Program, which delineates required project information, such as number and size of building spaces, functions and mechanical, electrical and technology requirements.

## **B. GENERAL DESIGN PHILOSOPHY**

Gavilan College is committed to achieving excellence in the design and construction of its facilities.

The College recognizes that its image is very much reflected in the character of its facilities.

Cost effectiveness is a key concern, without overly sacrificing aesthetics.

## **C. FLEXIBILITY AND ADAPTABILITY**

Educational buildings are expected to undergo change during their life-cycle. Given funding sources for public educational facilities, the opportunity to renovate does not occur frequently, which makes it paramount that the buildings be designed to meet functional requirements and operate optimally from day one.

Buildings must be designed to accommodate future educational delivery systems and technologies that are, as yet, unknown.

Systems flexibility is necessary in Gavilan College facilities.

## **D. COSTS**

Life Cycle cost assessments should be a part of the design approach to each project at Gavilan College.

## **E. OPERATIONS AND MAINTENANCE**

Building systems need to take into consideration the effort involved in operating and maintaining them. It is acknowledged that maintenance budgets are and will continue to be quite limited.

### **4.13 FUTURE EXPANSION CONSIDERATIONS**

As indicated in the narrative under Section 4.2 Capacity, there is currently no need or rationale for expansion at Gavilan. However, should enrollment increase in the future, or due to other factors, expansion of the facilities on-campus may be required.

Two specific locations on campus have been identified as good possibilities as future building pads. These locations are shown on the Proposed Site Plan.

One location is to the north of the existing Child Development Building. The new building would be in proximity to the existing library and art complex. The existing campus walkway structure and possible future "art plaza" could be extended to connect with the new building. Building function is unknown; to be determined based on future college needs.

A second location is to the south of the existing Child Development Building. The new building would be in proximity to the existing science complex.

New buildings could be connected to the existing infrastructure spine running north south under the main campus walk, or, a second infrastructure spine could be created in parallel, as well as a parallel walkway structure.

Additional building would require increased parking capacity and new site infrastructure to support increased loads.