In many assessments of student enrollment, one area that influences not only enrollment but retention is the appearance of the campus and its facilities. Two studies, one by Noel-Levitz (2001) and one by the Carnegie Foundation (1986), both infer that the campus landscaping and facilities seem to play an important part in enrollment and retention. The Carnegie study confirmed that 62 percent of prospective students thought that "appearance of the grounds and buildings was the most influential factor during a campus visit." Intuitively, the above statements seem reasonable, but the unmistakable result of follow up actions is the appearance of the grounds and facilities comes at a cost.

General Determinants of Cost for most construction projects :

The following factors***** may be neither involved nor significant in residential construction. However, they can be very important to an on-campus project as each can impact the total cost, completion date or both:

1. Safety: The primary objective of public construction is that it be safe for students, faculty, and staff. State laws and professional standards dictate a broad range of safety features such as eye-wash stations in chemical use areas, fire proofing, fire-resistant stairways and fire resistant carpeting.
2. Legislative Mandates/Regulations: All spaces on campus must meet a myriad of federal requirements such as ADA, EPA, OSHA, etc.. These laws and agencies govern building accessibility, removal of hazardous waste, asbestos, light ballasts, lead paint, storm water runoff, construction dust control, noise control, and more. State requirements also add to the costs by complementing the federal requirements.
3. Liability: Contractors working on public campuses are required by state law to carry appropriate workers compensation insurance and to be bondable. Through such insurance improves the work environment and the quality of workers on the job, it is also an expense which must be passed on to the customer.
4. Time is Money: Requirement any construction project to be completed very quickly raises the costs due to overtime payments, incentive payments to vendors, and potential penalties for failure to meet a deadline. However, demanding schedules are an inherent part of higher education design and construction efforts.
5. Complexity: Construction on campus often involves facilities such as laboratories, sports arenas, and fine arts spaces which are highly specialized and complex. These spaces are more challenging to build or renovate. Moreover, the work must contend with the realities of working near and around on-going classes and between use periods (summer and holiday breaks).
6. Longevity: Good stewardship involves constructing facilities that will last, are easily maintained, and may be converted to other programmatic or technologic uses in the future. Campus construction, unlike residential projects, must anticipate extensive demands by many users within a given period as well as continued service for many decades. Consequently, equipment and materials (e.g. carpet, HVAC) must be of an acceptable quality, and that quality adds to the overall costs.
   [*Guckert, D.J. and king, J.R. "The High Cost of building a Better University" ***Facilities Manager***, (19) May/June 2003.**]**

FAQ's for Campus Renovation/Repair Projects < $100,000**:

1. **Is the estimate binding?** Estimates should not be confused with bids. In the construction industry bids are binding, estimates are not. Also, budgetary estimates should only be used for budgetary purposes. These estimates are normally based on historical ($/SF) or industry (e.g. RS MEANS) cost data. When needed, outside contractors or vendors are contacted for additional cost data. Estimates of cost, resources and schedule are not exact and become more refined only as the project moves through the project delivery process. Therefore, estimates derived from detailed scopes of work are generally more accurate than those based on broad scopes and calculated with historical costs per square foot.

2. **Who does the estimate?** Estimates are prepared by in-house staff by Support Services, the physical plant or Computer Information Services. On some occasions outside estimating firms can be hired and these services paid for by the project.
3. **How long should it take to get an estimate and what is likely to cause delays?** In-house staff attempts to get an estimate done within 30-45 day, dependent on work load. In-house staff are also tasked for project management, planning and construction, safety, health and space management. Because of these normal duties, in-house staff prioritize the estimates with those duties, hence the 30-45 day turn around. Most of the time staff can get the estimates done for simple jobs within a week. The more complex the project, the more time, so it is beneficial for the requesting department to ensure ALL items of the UE-1 are filled out with as much information as possible. The more information, the less time to do an estimate.
4. **Is it possible for a department to get bids and ultimately commit to pay an off-campus contractor for my project?** While not encouraged, departments who obtain a proposal for minor renovations (less than $5,000) from an outside contractor can provide the proposal with the work request they submit to Physical plant. At no time can the department contractually obligate the university to pay for any construction or renovation work. There should not be an expectation that a department can speed up the process by independently soliciting a proposal from an outside contractor or vendor. Support Services/Physical Plant are still required to verify the contractor and proposed work meets all federal, state, system and university requirements.
5. **Does the size of the job matter?** Yes, but not as much as the complexity of the project. Simple remodeling (repainting, re-carpeting, etc.) may not require professional support. Larger renovation projects (removing or adding walls, modifications to air conditioning systems, etc.) may add a complexity to the project requiring architectural or engineering services.

6. **Under what circumstances may I employ an external contractor?** Departments are not authorized to accomplish construction, renovation and rehabilitation work. Per System Rule 51.04: With respect to such minor construction and rehabilitation projects, the Chancellor or designee(s) is hereby authorized:
    a. To appropriate funds to provide project funding;
    b. (1) to appropriate funds to provide project funding;
    c. (2) to select and contract with A/E's for professional design services;
    d. (3) to award, execute and administer contracts;
    e. (4) to do any and all things necessary to complete construction and rehabilitation;
7. **Could I put a construction person on my unit's payroll to do small renovations "in-house"?** No, see answer above.
8. **What policies, guidelines, laws, bureaucratic elements shape the costs of renovations?** Below are some examples of regulations that can impact timing and final cost of projects estimated to cost less than $100,000:

    The State requires any procurement exceeding $25,000 relating to a construction project be advertised on the State Electronic business Daily no less than two weeks prior to acceptance of bids. TAMUS requires all requests for bids or requests for proposals be published at least twice in a local newspaper, in one or more metropolitan papers, and in a minority publication. The State requires any project estimated to exceed $8,000, which uses public money and involves electrical or mechanical engineering, to be designed and inspected by a Licensed Professional Engineer (P.E.). all projects exceeding an estimated cost of $20,000, having more than one story, having a clear span of greater than 24 feet, or having a total

floor area over 5000 square feet must also be designed and inspected by a P.E. The State requires any construction project exceeding $50,000 that alters or adds to an existing state owned building and involves removal, relocation or addition of a wall or partition or the alteration or addition of an exit must have plans and specifications prepared by an architect. All construction, renovation or modifications, in whole or in part, to any state-owned facility is subject to compliance with the Texas Accessibility Standards (TAS). Projects estimated to cost $50,000 or more are also required to have plans and specifications submitted to the State for review and a post construction inspection to ensure compliance must be performed by a Registered Accessibility Specialist certified by the State. The EPA requires a survey to determine the presence of asbestos in a facility prior to accomplishing any renovations or demolitions. Furthermore, depending on the scope of work of a particular project, federal/state permitting or notifications may be required due to air and water discharges, storm water and wastewater regulations, fuel storage tanks, backflow prevention, radioactive waste, contaminated soil, etc.

9. **What determines the order in which Physical Plant stages work?** The physical Plant gives the highest priority to those projects which have an effect upon the safety/health of students, faculty and staff. Second priority are those projects which have an effect on the accomplishment of university objectives/mission. Finally, priority is given to those projects which have an effect on operational efficiencies and economies. Within each of these prioritization categories, Physical Plant relies on input from management, university councils, departments and funding to further prioritize projects.
10. **What factors affect the length of time between estimate and the work?** Delays in the start of construction on a project can be affected by the current Physical Plant workload and priorities, the method of accomplishment, the complexity of the job and the availability of resources. Once design is complete, examples of other delays include: materials and/or equipment needed for the project have been ordered but have not been received, the contractor has not completed a previous project and cannot immediately begin work, the nature of the work involves careful scheduling so as to not disturb activities in adjacent areas, etc.

***** Although $100,000 may seem to be an arbitrary quantity, it is not without some precedence. TAMU Committee to Study Procurement of Small Scope Renovation and Repair Projects defined small as being < $100,000. However, this does fall into the Texas A&M System Rule 51.04 for Minor Projects as defined in part; Minor project are defined as projects for the construction of new buildings, facilities or permanent improvements and additions to buildings, facilities or other permanent improvements that do not exceed $1,000,000 in cost and projects for the repair, renovation or rehabilitation of existing buildings, facilities or other permanent improvements that do not exceed $2,000,000 in cost.***