

# CITRUS COMMUNITY COLLEGE

## Program Review



## Facilities and Construction

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**YEAR**

**2006 – 2007**

# CITRUS COMMUNITY COLLEGE

## Facilities and Construction Program Review 2006 – 2007

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# College Mission Statement

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Citrus College delivers high quality instruction that empowers students to compete globally and to contribute to the economic growth of today's society.

We are dedicated to fostering a diverse educational community and cultural learning environment that supports student success in pursuit of academic excellence, economic opportunity, and personal achievement.

## Mission Objectives

Citrus College is a safe, friendly, accessible environment where all students and community members may optimize their academic, career, and cultural development.

As Citrus College continues to advance as a dynamic center for life-long learning, we will:

- provide general, lower division coursework leading to an associate degree in the arts or the sciences;
- prepare students to transfer to four-year colleges and universities;
- offer technological services and support for students, faculty, and staff;
- deliver programs to improve basic math, reading, communication, and ESL skills;
- grant opportunities for students to develop a global perspective through a curriculum with international and multicultural applications;
- furnish support services for the intellectual and personal development of all Citrus College students, including opportunities to participate in campus governance;
- foster a comprehensive and enriching program of extracurricular activities;
- conduct community education programs that encourage learning at every stage of life;

- award occupational certificates and degrees for career preparation and advancement;
- administer customized training programs for business and industry;
- increase career development support for students, faculty, and staff through career exploration,
- counseling, job preparation, job opportunities, and academic and classified staff development;
- collaborate with local high schools in articulation and curriculum development;
- advance cultural and personal enrichment programs for the college and community members, and promote inter-collegiate competition opportunities for students.



# Functions of the Facilities and Construction Department

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## Executive Summary

In support of the college's mission, the Facilities and Construction Department plans, builds, installs and maintains the buildings, facilities, and equipment necessary to provide a high-quality learning environment – one that is safe, secure, comfortable and attractive. The department is deeply committed to the idea that everything we do, or don't do, sends a message to our students and staff. We want that message to be that students and staff are welcomed, valued and part of a caring educational community. For this reason, we take pride in the physical appearance of our facilities and, as our resources permit, strive to maintain facilities that are not only functional but aesthetically pleasing as well.

## Department Function by Section

**Engineering.** The Engineering section of the Facilities and Construction Department is primarily responsible for the effective planning, operation and upkeep of the campus infrastructure and related building systems. To accomplish this, the Engineering Section performs the following functions and duties:

- Oversees the operation of all plumbing, mechanical and electrical systems, including the central plant and campus-wide energy management system.
- Maintains and manages the district plan archive and as-built drawing files.
- Participates in the design and engineering of electrical distribution systems, plumbing and mechanical systems, and digital control and warning systems.
- Prepares plans, specifications, CAD drawings and other documents

necessary for the bidding or in-house execution of plumbing, mechanical or electrical projects.

- Reviews plans and specifications from contracted architects and engineers to ensure accuracy and compliance with district needs and standards.
- Conducts inspections of utility infrastructure work and mechanical, electrical, and plumbing work in buildings to ensure compliance with plans, specifications and building codes.
- Sets up service agreements for the maintenance of major mechanical and electrical systems and components.
- Maintains accurate plans on the location of campus utilities and coordinate all utility outages required to execute project work or construction.
- Oversees the operation of the district key office, including the programming of locks and the distribution and control of keys.
- Establishes product and quality standards for equipment, hardware and materials used in buildings and campus infrastructure.
- Provides technical oversight for the repair, maintenance, installation and replacement of building system and infrastructure equipment.
- Prepares requests for proposals from contractors, conducts job walks and evaluates contractor proposals.
- Participates in facilities planning, project development, design, construction and building occupancy.
- Prepares the master schedule for the operation of lights and HVAC equipment via the energy management system to facilitate program needs while ensuring energy conservation.
- Installs, operates and programs a variety of computer software related to the operation and control of building systems and equipment.
- Organizes and archives large quantities of technical data for timely

identification and retrieval.

- Works cooperatively in a team environment to support the educational mission of the college.

**Maintenance.** The Maintenance section of the Facilities and Construction Department is primarily responsible for effectively maintaining the buildings and building systems that comprise the college's learning and working environment. To accomplish this mission, vital to the college's central mission, the Maintenance section performs the following functions and duties:

- Utilizes a campus-wide computer work order program to process work requests, prioritize and assign work, track work progress and costs, and communicate with requestors regarding the status of their work requests. Effectively, this work order program facilitates an open and ongoing dialogue between the Maintenance section and all of its customers.
- Installs, maintains, troubleshoots and repairs electrical distribution systems and fixtures. Installs, adjusts, repairs or replaces electric lights, motors, heaters, generators, transformers, switchboards and other electrical apparatus. Installs transmission lines for electrical equipment. Participates in projects such as wiring communications lines between and within structures.
- Maintains, inspects, diagnoses and makes emergency repairs to natural gas, water, refrigeration, and air distribution systems. Tests, adjusts, and calibrates boiler and air conditioning equipment and mechanical, electrical, and pneumatic control instruments. Tests and may chemically treat boiler, condenser and cooling tower water and water from other systems. Adjusts, repairs or replaces motors and other electrical apparatus. Services and may install direct digital control systems.
- Paints walls, doors, rooms, buildings, parking lots, and other surfaces as required.

- Inspects, maintains, and repairs complete plumbing systems, including other fluid flows such as natural gas. Fits, installs, and repairs sewer lines, water lines, heaters, valves, seals, and back flow preventers.
- Performs a variety of carpentry duties. Constructs, fabricates, installs, repairs or replaces doors, walls, signs, desks, counters, shelves, shelf units, computer tables, chairs, benches, bleachers, tables, sheds, scaffolds, forms, frames, window frames, fences and stairways.
- Participates in the construction of temporary and permanent buildings and structures.
- Installs, repairs, and replaces locks on doors, desks, gates, and lockers. Installs electronic door mechanisms.
- Maintains swimming pools to comply with all applicable health and safety standards and requirements and optimal conditions for use.
- Inspects, tests, and repairs smoke and heat sensors, fire alarms, pulls, and panels to meet applicable standards. Conducts preventive maintenance on sprinkler components.
- Maintains up-to-date knowledge of elevator emergency safety and evacuation procedures. Assists elevator company representatives in ongoing elevator testing and maintenance.
- Inspects roofs. Repairs roof leaks and potential roof leaks. Performs preventive maintenance of roofs. Coordinates roof repairs and replacements by outside contractors
- Executes in-house remodeling projects by planning work to be performed, developing budgets and material and labor estimates, and sequencing work activities. Maintains required records and makes reports.
- Operates and performs maintenance of equipment including light tractors, skip loaders, forklifts and other labor saving devices. Performs a full range of vehicle preventive maintenance and

servicing. Diagnoses mechanical and electrical systems. Performs routine vehicle tune-ups, lubrication, oil and oil filter changes.

- Performs safety and operating checks on College vehicles, ensuring vehicle safety for the transportation of students. Inspects light, brakes, seating, oil and water leaks.
- Fabricates and welds metal fixtures such as, but not limited to, rails, platforms, stairs, and gates.
- Monitors the operation of the central plant. Calibrates, adjusts and schedules the operation of chillers, pumps and variable speed drives.
- Responds to emergency repair calls and clean-up calls.
- Performs set-ups for special campus events and other events for outside users.
- Troubleshoots, maintains and repairs building HVAC systems. Addresses occupant complaints regarding room temperatures and fresh air flow.

**Grounds.** The Grounds section of the Facilities and Construction Department is primarily responsible for effectively maintaining and managing the campus grounds, parking lots, hardscape and athletic facilities in a way that causes minimum disruption to campus operations. To accomplish this mission, vital to the college's central mission, the Grounds section performs the following functions and duties:

- Systematically collects all trash generated on campus and transports it to centralized collection points for pick-up by contracted waste management contractor.
- Cleans and sweeps all campus parking lots and roadways. Paints parking lot and roadway markings and surface signage. Fabricates and installs parking lot and roadway signs.
- Selects, plants, prunes, and trims trees, ornamental plants, shrubs, and ground covers to accomplish landscaping objectives.

- Removes weeds, blows, rakes, and removes trash and debris from walkways, culverts, stairways, roadways, planters, and parking areas. Mows, grooms, and replants lawn areas. Fertilizes turf and various landscaped areas. Maintains in-ground drains and culverts.
- Installs new landscaping by cultivating and renovating areas and installing or replacing turf, trees, ornamental plants, shrubs, ground covers, annuals, and bulbs.
- Prepares, repairs, or installs fencing, paving materials for pathways, wood, concrete, and/or rock borders, and various posts, drains, and culverts.
- Stakes, prunes, thins, and transplants turf, trees, ornamental plants, shrubs, ground covers, annuals, and bulbs. Levels, cuts, fills, trenches, and excavates grounds with tractors and other rolling stock.
- Maintains athletic fields, areas, surfaces, and outdoor classrooms in a safe and usable condition. Mows, grooms, contours, paints, and lines athletic and public use play fields to comply with required dimensions.
- Constructs, sets up, takes down, maintains, and repairs athletic activity courses, tracks, ranges, fields, and other equipment and constructions.
- Sets up signs, scoreboards, goals, clocks, benches, trash cans, public address systems, and bleachers for athletic or other events.
- Monitors and diagnoses weed, disease, and pest problems in athletic fields/areas, taking appropriate measures to mitigate or eliminate the problems.
- Sets calibration on tank sprayers, drop spreaders, and wheel-driven spreaders.
- Applies fertilizers, herbicides and pesticides to areas, as authorized. Places postings where pesticides are being applied. Disposes of product containers per applicable environmental regulations. Applies biological/organic controls for pests and weeds.

- Maintains up-to-date knowledge of safe pesticide/herbicide application.
- Assists with event support and logistics, including, but not limited to preparation of access ways and parking lots. Assists with crowd control and traffic direction. Explains and enforces rules of conduct for visiting teams and renters. Familiarizes outside users with athletic venues; assists them in accessing sound systems, scoreboards, lighting and other equipment. Cleans and maintains restrooms. Collects trash generated by events and cleans venue to maintain usable conditions.
- Maintains work order records, equipment parts listings, equipment oil change logs, equipment service/repair logs, seed usage logs, irrigation repair logs, and records of supplies used on athletic fields.
- Designs, installs and maintains irrigation systems. Programs Maxicom internal irrigation clock system.
- Documents Material Safety Data Sheets (MSDSs) for potentially hazardous materials. Maintains logs and files for pesticide use reports with the District and/or local governmental agencies.

**Operations.** The Operations section of the Facilities and Construction Department is primarily responsible for providing custodial service to all academic and administrative areas on campus. Its mission, vital to the college's central mission, is to provide the cleanest and healthiest possible working and learning environment for students and staff without disrupting college programs in any way. To accomplish this, the Operations section performs the following functions and duties:

- Responds to emergency clean-up requests promptly and professionally.
- Assists with set-ups and tear-downs for campus events.
- Utilizes environmentally-friendly cleaning products which reduce indoor air-pollution, minimizes waste and has reduced health and safety risks.

- Cleans carpets campuswide, utilizing an industrial grade carpet steam cleaning machine.
- Strips, waxes and polishes resilient flooring campuswide.
- Cleans, dusts, and disinfects restrooms including floors, stalls, toilets, urinals, and fixtures. Removes trash and waste. Cleans trash receptacles and replaces liners. Replenishes soap and towel dispensers.
- Cleans public entry and use areas including, but not limited to hallways, stairways, and meeting rooms. Cleans and disinfects drinking fountains, door handles, and door push plates. Sweeps and mops hard floors and baseboards, spot cleaning as necessary and wet mopping on a regularly scheduled basis. Vacuums and spot cleans carpeted areas.
- Performs regularly scheduled cleaning of classroom, laboratory, and office areas including, but not limited to furniture, fixtures, pencil sharpeners, boards.
- Maintains safe and clean walkway and grounds surrounding the area of assignment. Picks up litter. Empties and cleans outdoor trash and smoking urns.
- On a regular schedule, cleans and washes desks, tables, counters, furniture and fixtures, inside/outside walls and ceilings, mirrors, ledges, bookshelves, and other related items. Periodically oils or polishes woodwork, paneling, wood furniture, and metal fixtures.
- Rearranges, moves, and sets furniture and equipment in place, according to established instructions and seating arrangements. Participates with others to assemble furniture, removing from and properly disposing of packaging materials.
- Participates in set up and take down of seating and equipment for events, including theater and gymnasium use. Sets up special equipment such as barriers, benches, bleachers, floor mats, and other equipment.
- Secures internal and external entry and exit doors, ensuring that



windows and lights are locked and off.

- Ensures that secondary containers for cleaning and other products are properly labeled. Ensures that Material Safety Data Sheets (MSDS) for assigned area(s) are up to date.
- Checks fire extinguishers and first aid kits for current service or stock.
- Inspects equipment used on a regular basis for function and required servicing. Makes minor repairs and arranges for complex repairs.
- Documents work activities, inspections, unanticipated occurrences, and MSD sheets.
- Replaces light bulbs.
- Conducts ongoing inspections of all occupied areas and generates work requests for the repair, replacement or maintenance of defective or malfunctioning equipment or building components.

**Environmental Health and Safety.** The Environmental Health and Safety section of the Facilities and Construction Department is primarily responsible for developing, implementing and overseeing the college's environmental health and safety program. It is responsible for ensuring that the college is in compliance with all local, state and federal regulations and standards for environmental health and safety, and for overseeing the campus recycling program to reduce the campus waste stream. In the end, its primary mission is to insure that Citrus College is a safe and healthy place to work and learn, while being as environmentally friendly as possible. To do this, the Environmental, Health and Safety section performs the following functions and duties:

- Monitors CAL/OSHA and AQMD and other local, state and federal regulations, current legislation and nationally recognized environmental, health and safety standards to assure the district's compliance.

- Conducts regular safety inspections and participates in all inspections conducted by regulatory compliance inspectors, including CAL/OSHA, AQMD, the Fire Marshall, the State Water Resources Control Board and others.
- Prepares, maintains and updates the New Employee Safety Awareness Booklet, the District Injury Illness Prevention Plan, the Hazardous Communication Plan, the Blood Borne Pathogen Exposure Control Plan, the Storm Water Pollution Prevention Plan, the Hazardous Materials Business Plan and other regulatory programs.
- Conducts or administers a variety of safety trainings on such topics as ergonomics, emergency preparedness, hazard communication, illness and injury prevention, fire extinguisher use, forklift operation and others.
- Develops, oversees and executes the district's recycling program.
- Monitors and schedules inspections and service for fire extinguishers, fire suppression systems, clarifier pits and backflow devices.
- Responds to complaints regarding environmental, health and safety issues. Conducts interviews and participates in investigations related to these issues and reports of accidents on campus.
- Consults with the Director of Facilities and Construction on safety improvements and ADA access compliance, waste management and hazardous materials management.
- Answers all correspondence and completes all forms necessary for regulatory compliance with local, state and federal regulatory agencies, including: California Integrated Waste Management Board, Los Angeles County Fire Department, Cal-EPA Department of Toxic Substances Control, L.A. County Department of Health Services, the State Water Resources Control Board and other agencies as required.

- As required by the South Coast Air Quality Management District, receives training for and acts as the District's Employee Commute Reduction Program Coordinator (Rule 2202).
- Attends annual conferences and regulatory compliance meetings to keep- updated with EH&S industry trends, as well as, new laws, regulations and additional compliance issues.
- Develops and manages a budget for the payment of permit and operating fees, training, equipment service and consultant services related to environmental health and safety.
- Monitors, collects and inventories all universal and hazardous wastes generated throughout campus. Secures contracts and prepares manifests for hazardous waste removal.

**Construction.** The Construction section of the Facilities and Construction Department plans, schedules, oversees and coordinates the construction of capital building projects funded through the Revenue Bond Construction Fund – a \$121,000,000 bond measure passed by the voters in 2004 to implement the college's Facilities Master Plan. To accomplish this, the Construction section performs the following functions and duties:

- Assumes the lead role in overall construction program planning, including identifying and prioritizing projects, developing project scopes of work, determining project sequencing, obtaining accurate project cost estimates and developing and tracking the program budget.
- Develops and constantly updates an implementation schedule that effectively integrates all of the following:
  - Bond sales.
  - The release of funding.
  - Infrastructure and utility studies.
  - Scheduling of infrastructure and utility upgrades necessary to support new building construction.
  - Swing space requirements.
  - Program relocations.

- Campus functionality and access.
  - Hazardous material abatement.
  - Construction and demolition sequencing.
- Actively participates in the planning of individual projects, identifying key stakeholders, engaging in dialogues with them, setting up and attending planning meetings with college staff and the design team, developing project scopes, implementing value engineering reviews, working with facilities personnel to develop standards, initiating constructability reviews and reviewing plans and specifications.
  - Maintains open lines of communication with and dialogues with: the General Contractor and his on-site team, the District's Architect and his design and engineering team, the Inspector of Record, the Director of Facilities, the Director of Purchasing, the Construction Project Manager and any other agencies or individuals essential to the completion of a project.
  - Prepares and negotiates contracts for architectural, engineering, design, testing and other consultant services.
  - Reviews all construction schedules submitted by Contractors for the following:
    - A project completion date consistent with contract requirements.
    - Sound activity sequence logic.
    - Accurate/realistic activity durations.
    - Sound activity relationships (start-to-start, finish-to-start, overlapping, etc.).
    - Clear identification of the Critical Path (CP).
    - Inclusion of submittal turn-around times, delivery lead times, special inspections and other activity restraints.
  - Oversees in-house and contracted constructability reviews and ensures that comment resolutions have been incorporated into the plans and specifications.
  - Assists with the preparation of addenda to the contract documents and communicates with the Purchasing Department to ensure timely distribution of these addenda.

- Proactively works to mitigate change orders, reviews the contract documents for errors, omissions and ambiguities. Directs the Architect to address any errors, omissions or ambiguities to minimize change order requests after the contract is let. Scrutinizes all change order requests by the Contractor for merit, cost-effectiveness and fair pricing.
- Assists with the preparation of requests for proposals for architectural, engineering and hazardous materials consulting services as required. Reviews proposals for these services and assists in the selection of qualified firms.
- Conducts regularly scheduled construction meetings for all projects, taking substantive notes and producing meeting reports that accurately reflect the status of each project and assign responsibility for all action items.
- Monitors all District expenditures related to projects, including but not limited to expenditures for General Contractor pay applications, change orders, testing, inspection, architectural and engineering fees, project management, hazardous material abatement, special consultant fees, engineering studies, contract work outside the General Contractor's scope of work, fees and assessments paid to government agencies and reimbursements to architects, engineers and others. Provides ongoing analysis and forecasting to enable informed cost-control decisions. Makes recommendations on cost-control measures to achieve budgetary goals.
- Coordinates construction projects, infrastructure upgrades and scheduled maintenance projects to ensure continuous campus operations, functionality and access. Assists in securing program swing space to provide office, classroom and lab space for programs affected by construction. If requested, obtains proposals for the lease of temporary buildings and coordinates and oversees the installation of these buildings.

- Provides ongoing oversight of the program's cash flow, keeping the Vice President of Finance and Administration apprised of the financial status of each project and funding needed to implement successive projects in the master implementation schedule.
- Assists in the development of a web page designed to provide the public with information on project funding and construction progress. Takes phone calls and questions from the public and regularly reports to the Bond Oversight Committee on the status of projects within the program.
- Evaluates Contractor's proposal costs and makes a formal recommendation to the District regarding the acceptance of any proposals for change orders. If requested by the District or Architect, obtains estimates from other Contractors to do the proposed work. These estimates may be used as a basis for comparison to accept or reject estimates provided by the Contractor.
- Advises the District and makes recommendations to the District for exercising the District's contract prerogatives, such as giving the Contractor notice to accelerate the progress when the schedule goals are in jeopardy due to Contractor failings, withholding payment for cause and other prerogatives when required in an effort to achieve contract compliance.
- Reviews and evaluates claims by the Contractor against the District or Architect for any alleged cause. May work with the District's legal council to negotiate or settle a claim against the District.
- Provides ongoing monitoring and inspection of all project work to ensure quality workmanship and compliance with the construction documents and all applicable code and regulations.
- Establishes design schedules with Architects and Engineers. Monitors schedules for timely submittals to District and state and local agencies for preliminary design, design development, and construction document approvals.

- Ensures that the Architect files all necessary documents required by DSA to close project files with Certification of Compliance with the Field Act. Receives all 60-day letters from DSA and provides follow-up with the Architect to ensure that all missing documents are submitted in a timely manner.





# Service Recipients

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## Summary

In support of the college's educational mission, the Facilities and Construction Department functions to serve the entire college. Consequently, our service recipients comprise the entire student, staff and faculty population, along with all the grounds, buildings and other facilities that make up the physical campus.

## Student Population

The size and make up of the student population at Citrus College is described in tables 2.1 through 2.4 below.

**Table 2.1**

Annual Unduplicated headcount and Full-Time Equivalent Students (FTES)

|                                      | 2003-2004 | 2004-2005 | 2005-2006 |
|--------------------------------------|-----------|-----------|-----------|
| <b>Annual Unduplicated Headcount</b> | 24,139    | 25,111    | 23,660    |
| <b>FTES*</b>                         | 11,110    | 11,296    | 11,564    |

Source: Chancellor's Office, Management Information Systems and 320 Report \*FTES data for 2003-2004 and 2004-2005 are based on the FTES recalculation. FTES data for 2005-2006 are based on the FTES annual data. The 2005-2006 recalculation data were not available at the time of this report.

**Table 2.2**

Age of Students at Enrollment

|                 | 2003-2004 | 2004-2005 | 2005-2006 |
|-----------------|-----------|-----------|-----------|
| <b>Under 18</b> | 16.3%     | 12.2%     | 11.5%     |
| <b>18 - 24</b>  | 45.5%     | 48.3%     | 50.4%     |
| <b>25 - 49</b>  | 24.6%     | 24.7%     | 25.6%     |
| <b>Over 49</b>  | 9.3%      | 10.6%     | 10.8%     |

|                |      |       |      |
|----------------|------|-------|------|
| <b>Unknown</b> | 4.2% | 4.1 % | 1.7% |
|----------------|------|-------|------|

Source: Chancellor's Office, Management Information Systems

**Table 2.3**

## Gender of Students

|                | 2003-2004 | 2004-2005 | 2005-2006 |
|----------------|-----------|-----------|-----------|
| <b>Female</b>  | 56.4%     | 56.6%     | 56.8%     |
| <b>Male</b>    | 42.3%     | 41.7%     | 42.7%     |
| <b>Unknown</b> | 1.3%      | 1.7 %     | 0.5%      |

Source: Chancellor's Office, Management Information Systems

**Table 2.4**

## Ethnicity of Students

|                                      | 2003-2004 | 2004-2005 | 2005-2006 |
|--------------------------------------|-----------|-----------|-----------|
| <b>Asian</b>                         | 8.2%      | 9.2 %     | 9.0%      |
| <b>Black/African American</b>        | 4.8%      | 5.7 %     | 6.0%      |
| <b>Filipino</b>                      | 2.8%      | 3.2 %     | 3.1%      |
| <b>Hispanic</b>                      | 31.9%     | 34.7%     | 36.6%     |
| <b>Native American</b>               | 0.7%      | 0.7 %     | 0.7%      |
| <b>Other Non-White</b>               | 1.6%      | 2.4 %     | 2.9%      |
| <b>Pacific Islander</b>              | 0.0%      | 0.0 %     | 0.0%      |
| <b>White</b>                         | 31.0%     | 34.7%     | 35.1%     |
| <b>Unknown/<br/>Decline to State</b> | 18.8%     | 9.5 %     | 6.7%      |

Source: Chancellor's Office, Management Information Systems

### Faculty and Staff Population

Citrus College possesses a talented and diverse faculty/staff population. The college recently received an award from the California Community College Chancellor's Office for its success in hiring a diverse faculty. The size and make up of the employee population at Citrus College is described in table 2.5 below.

**Table 2.5**

Citrus College Employee Classification

|  | <b>Number at Citrus</b> |
|--|-------------------------|
| <b>Classified Employees</b>            | 294                     |
| <b>Confidential/Supervisory</b>        | 33                      |
| <b>Full-Time Faculty</b>               | 171                     |
| <b>Part-Time Faculty</b>               | 354                     |
| <b>Management</b>                      | 33                      |
| <b>Subtotal of Non-student Workers</b> | 885                     |
| <b>Student Workers</b>                 | 440                     |
| <b>Total</b>                           | <b>1,325</b>            |

Source: Citrus College HR Department

### **Campus Facilities**

Currently, Citrus College occupies a 104-acre campus with approximately 40 buildings that comprise almost 650,000 square feet of classrooms, labs and office space. The buildings range in age from 74 years old to new. Most of the buildings on campus are served by a new central plant with thermal energy storage to meet their heating and cooling needs.

The campus grounds comprise over 90 acres of walkways, roadways, parking lots, landscape areas and athletic facilities.

Currently, two new buildings and a new parking lot are under construction, with construction of another new building to commence at the beginning of 2008. Yet another building – a large student services building – is scheduled for construction beginning in 2009.

# Staff Resources

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## Organization

The Facilities and Construction Department employs 73 individuals to perform its vital functions in support of the college's mission. These employees include custodians, gardeners, utility workers, skilled craftsmen and technicians, inspectors, an operations assistant, an engineer, clerical staff, supervisors and managers. The following organization chart depicts the operational organization of the department and shows how our staff resources are allocated.



# Organizational Chart

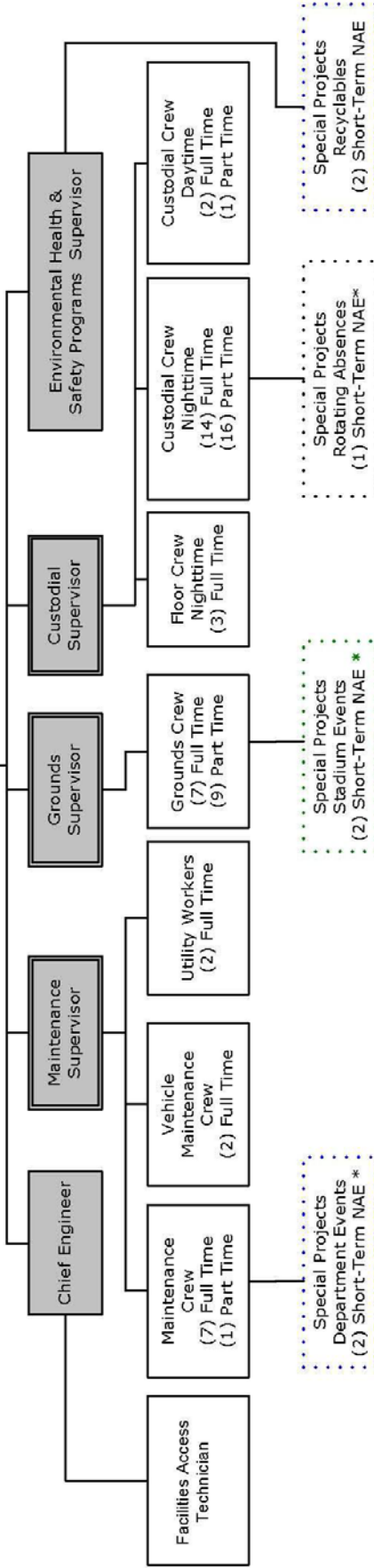
## Facilities Department

|                          |
|--------------------------|
| <b>Maintenance Dept.</b> |
| <b>Days</b>              |
| (1) Supervisor           |
| <b>Full Time:</b>        |
| (1) Locksmith            |
| (1) Electrician          |
| (2) Painters             |
| (3) HVAC                 |
| (2) Vehicle              |
| Maintenance              |
| (2) Utility Workers      |
| <b>Part Time:</b>        |
| (1) HVAC                 |
| <b>Grounds Dept.</b>     |
| <b>Days</b>              |
| (1) Supervisor           |
| <b>Full Time:</b>        |
| (2) Irrigation           |
| Specialist               |
| (5) Gardeners            |
| <b>Part Time:</b>        |
| (9) Gardeners            |

|  |
|--|
| <b>Custodial Dept.</b>   |
| <b>Evenings</b>  |
| (1) Supervisor   |
| <b>Full Time:</b>  |
| (3) Floor Crew   |
| (14) Custodians  |
| <b>Part Time:</b>  |
| (16) Custodians  |
| <b>Days</b>  |
| <b>Full Time:</b>  |
| (2) Custodians   |
| <b>Part Time:</b>  |
| (1) Custodian  |
| <b>Facility Rentals</b>  |
| (Reports to Vice President of Fiscal Services)                         |
| (1) Finance and Administrative Services / Facilities Rental Supervisor |

Director of Facilities & Construction

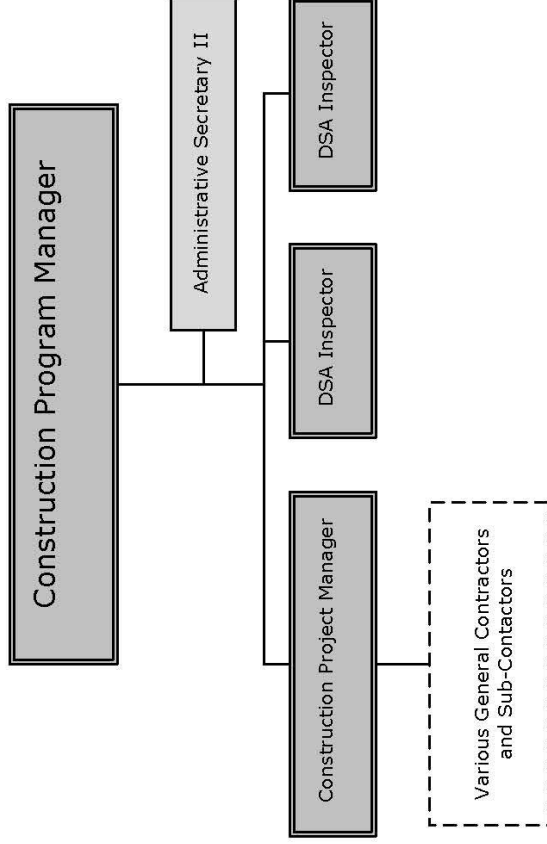
Facilities Operations Assistant





# Organizational Chart

## Construction Department



## Assignments and Specialties

The Facilities and Construction Department comprises an effective and diverse team of maintenance and construction professionals, the composition of which is driven by the needs of the college and the necessity to delivery services in an efficient, cost-effective manner. The Department has, for example, a Chief Engineer—a rare position in most community colleges. This position was created and filled at Citrus because of a pressing need for an in-house engineering professional. Faced with at least ten years of major capital construction projects and the attendant impact on the campus infrastructure; faced with the construction of a new EMS-controlled central plant with thermal energy storage; faced with a host of remodeling, renovation, and utility and mechanical upgrade projects—it became apparent that an engineering professional dedicated to the best interests of the college and integrating projects in an effective, make-sense manner would be a huge asset to the department.

And filling this position has paid great dividends already: our chief engineer, besides providing in-house plan review, has developed design solutions and produced plans for key infrastructure projects related to construction across the campus; he has provided essential project-to-project continuity, identifying secondary effects on existing infrastructure, allowing us to plan ahead and avoid redundant infrastructure upgrades and modifications. He has produced plans and specifications for small to medium-size remodeling and utility projects. And, as the custodian and organizer of the district's plan archive, he has served as the main contact for providing plans and utility location information to contracted engineers and architects. In all of this, he has helped the district realize substantial savings and eliminated the need for outside Construction Management services.

Similarly, the department recognized the need for semi-skilled workers who could perform routine tasks that were taking time away from and disrupting the work of highly-paid skilled maintenance technicians and specialists. In short, it seemed wasteful and ineffective to interrupt the work of an electrician or HVAC technician to have them change a light bulb or move tables and chairs for a campus event. Hence, two Maintenance Utility Workers were hired to perform semi-skilled routine tasks and increase the efficiency of the overall maintenance team. These Utility Workers have, in fact, become highly valued members of the facilities team and have turned out to be some of the most productive workers in the department.

This general philosophy of creating and filling positions based on real needs, as opposed to traditional formulas or ratios, has served the department and the college well. The following table 3.1 below lists the positions in the Facilities and Construction Department and indicates the assignment or specialty for each position:



| <b>QTY</b> | <b>POSITION</b>                               | <b>ASSIGNMENT OR SPECIALTY</b>  |
|------------|---|---|
| 1          | Director of Facilities and Construction       | Department Manager  |
| 1          | Construction Program Manager                  | Manager of the Bond Construction Program  |
| 1          | Chief Engineer                                | In-house engineering services   |
| 1          | Maintenance Supervisor                        | Supervisor of the Maintenance Section   |
| 1          | Grounds Supervisor                            | Supervisor of the Grounds Section   |
| 1          | Custodial Supervisor                          | Supervisor of the Custodial Section   |
| 1          | Facilities Operations Assistant               | Coordinates the delivery of Facilities services; Facilities office manager; assistant to the Director |
| 1          | Administrative Secretary II                   | Assistant to Bond Construction Program Manager  |
| 1          | Construction Project Manager                  | Construction project management   |
| 1          | DSA Inspector                                 | Construction inspection services  |
| 1          | Supervisor of Environmental Health and Safety | Campus Environmental Health and Safety; campus recycling program                                      |
| 1          | Facilities Access Technician                  | Locks, keys, intrusion alarms, office support   |
| 1          | Skilled Maintenance Technician                | Electrical  |
| 3          | Skilled Maintenance Technician                | Heating, ventilation, air conditioning, plumbing  |
| 1          | Skilled Maintenance Technician                | Evening general maintenance coverage, HVAC preventative maintenance                                   |
| 2          | Skilled Maintenance Technician                | Mechanical maintenance and metal fabrication  |
| 2          | Skilled Maintenance Technician                | Painting  |
| 1          | Skilled Maintenance Technician                | Locks, security and fire alarm systems  |
| 2          | Utility workers                               | Light carpentry, plumbing, general maintenance  |

| <b>QTY</b> | <b>POSITION</b> | <b>ASSIGNMENT OR SPECIALTY</b>          |
|------------|-----------------|---|
| 1          | Gardener III    | Irrigation                              |
| 6          | Gardener II     | Full-time general gardening and grounds |
| 7          | Gardener I      | Part-time general gardening and grounds |
| 19         | Custodian       | Full-time custodial services            |
| 13         | Custodian       | Part-time custodial services            |

## Staff Preparation and Training

Members of the Facilities and Construction Department have undergone a variety of specialized trainings to help create a safer workplace and increase their knowledge, expertise and proficiency in their specialized areas. Some of these trainings have included:

- 8-Hour Hazardous Materials Awareness
- Adjustable Speed Drives
- Advanced Industrial Electricity
- Air Handling Systems
- ASCIP Asbestos
- Basic Electricity
- Basic Heating Ventilation & HVAC
- Basic HVAC
- Basic Industrial Electricity
- Basic Lighting
- Bid Law Update & Review
- Boiler & Steam Systems
- Building Education
- Building Regulations
- Cal OSHA – Essentials of Safety
- California Construction Law
- CCEMSA – EMS Workshop
- Chain Saw Safety
- Chilled Water Systems
- CIRCON Controls
- CIRCON Operator
- Classified Leadership
- Cleaver Brooks Boiler Operation and Maintenance
- Conducting Effective Inspections
- Consortium Training
- Cooling Tower Efficiency
- Deep Cleaning
- Disaster Survival Skills
- Electrical Diagrams
- Electrical Safety
- Electrical Systems
- Emergency Planning & Preparedness Training for MINS & SEMS

- Energy Management System Visual Integrator
- Fundamentals of Electricity & Energy Efficiency
- Fusion
- Grandmaster Operator
- Green to Clean Performance Cleaning
- Go Green Maintex
- How to Handle Difficult People
- HVAC Package Units
- HVAC System Testing
- In-House – Monthly Safety Trainings
- Irrigation
- ISSA InterClean Seminar
- Lamp & Ballast Basics
- Lighting Fixture Maintenance
- Low Voltage Electrical Safety
- Management Skills
- Managing Multiple Projects
- Managing School Construction
- Managing Skills
- Managing Your Energy Systems
- Maxi-com Irrigation Clock System Training
- NAPA - AC Advanced Troubleshooting
- Package Unit HVAC
- Pesticide & Weed Control
- Premium Efficiency Motors and Adjustable Speed Drives
- Prevailing Wage Law
- Primavera SureTrak
- Re-refined Oil Awareness
- SC Clean Vehicle Technology
- SCE Air Handling Systems
- SCE Chilled Water Systems
- Schlage “D” Series
- Schlage “L” Locks
- Silent Knight – Intrusion Alarm Systems
- Storm Water Pollution
- Target Specialty – Pest Control
- Trees, People & Urban Environment
- Unacceptable Behavior
- Unitary HVAC Systems

## Professional Activities and Committee Participation

The individuals of the Facilities and Construction Department are active in a variety of professional and trade organizations and participate in numerous committees both inside and outside the college community. Considering the wide range of issues faced by our department — technical, legal, political, economical and logistical — networking and dialoging with our peers and colleagues is absolutely essential. The following lists some of the professional organizations and committees with which our staff is affiliated:

- Los Angeles County Facilities Network
- Community College Facilities Coalition
- California Community College Facilities Network
- Citrus College Classified Staff Development Committee
- Citrus College Code of Ethics Committee
- Citrus College Diversity Committee
- Citrus College Physical Resources Committee
- Citrus College Taste of Autumn Committee
- Citrus College Women's Conference Committee
- Construction Specification Institute
- CCC-IOU Partnership for Energy Savings
- CCC-DSA Choice Committee
- International Brotherhood, Bricklayers and Trowel Trades
- Brick Mason's Local Number 4
- International Code Council
- American Concrete Institute
- Division of the State Architect
- Governor's Office of Emergency Services
- Masonry Institute of America
- Los Angeles County Office of Education
- International Brotherhood of Electrical Workers
- Construction Specifications Institute
- California Campus Environmental Health and Safety Association
- California Community College Disaster Resistance Assessment Group

# Physical Resources

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## Maintenance Compound

The Facilities / Maintenance Compound comprises a 66,000 sq. ft. secure compound that contains the following:

- 2,800 sq. ft. of office space dedicated to the facilities offices, a plan room, conference room, key office, lock shop and copy room.
- A 6,300 sq. ft. covered waste management center dedicated to the storage, handling and recycling of the campus waste stream. The center is equipped with a cardboard bailer, numerous containers for specific types of recyclable materials, a work area for disassembly and separation operations, containers for hazardous materials, and trash dumpsters for waste materials to be picked up by our contracted disposal service.
- A covered fuel-dispensing station and vehicle service area, serviced by a 5,000 gallon, aboveground fuel storage tank.
- A fully equipped 2,500 sq. ft. maintenance shop housing tools, equipment, materials and supplies for the maintenance of buildings and the campus infrastructure. The shop also houses a break / lunchroom for maintenance personnel.
- A 2,500 sq. ft. automotive maintenance and metal fabrication shop equipped with lifts, welders, a tire balancer, a tire changer, lathes, sharpening equipment, power washing equipment and a variety of other power tools and hand tools. The shop also houses an office / storage area for vehicle maintenance records and parts research and storage.
- A 1,250 sq. ft. grounds shop that serves as a garage for many of the grounds vehicles and provides storage for tools, equipment and materials used for the maintenance of the campus grounds and irrigation systems. The shop also houses an office /storage area in which the campus master irrigation computer station is located, along with irrigation repair parts and supplies.
- A 1,250 sq. ft. custodial warehouse used to store custodial supplies,

- equipment, and paper stock for distribution across the campus. The warehouse also serves as a garage for a commercial grade, truck-mounted carpet cleaning unit, and has a small repair shop for minor repairs to custodial equipment.
- 52,200 sq. ft. of paved yard space, 8,000 sq. ft. of which is covered. This space is used for vehicle parking, equipment and supply storage, record storage and district surplus equipment storage.

### On-Campus Facilities

In addition to the Facilities / Maintenance Compound, the Facilities and Construction Department utilizes several on-campus locations as resources for storage and ready access. These include:

- A 1,300 sq. ft. masonry blockhouse, formerly used to house the campus main switchgear, now used for HVAC and painting materials storage.
- A 400 sq. ft. wing of the Campus Center, formerly used to house the Campus Center chiller cooling tower and associated equipment, now used as electrical parts storage.
- A 40-foot storage container, located west of the baseball complex, used to store bulk paint supplies and pumping and generating equipment.
- A 400 sq. ft. equipment room, formerly used to house the LB Building chiller, now used for bulk storage of light bulbs.
- A 900 sq. ft. masonry building, formerly used to house the Central Plant, now being gutted of old equipment so it can be converted into an HVAC storage area and workshop.
- A 500 sq. ft. area in the basement of the Performing Arts Center used to store HVAC filters.

### Tools and Equipment

**Vehicles.** The Facilities / Maintenance Department uses a wide variety of vehicles and specialized motorized equipment. Table 4.1 below lists these vehicles and equipment, along with cost, identification and assignment information.

**Table 4.1**

## Facilities and Construction Vehicles / Equipment

| Vehicle # | Year | Description              | VIN #                | License | Acquired | Cost     | Smog Check | Department     | Surplused |
|-----------|------|--------------------------|----------------------|---------|----------|----------|------------|----------------|-----------|
| 118       | 2002 | Carson Trailer           | 4HXSU08182C043481    | 1065497 | Jan-02   | \$695    |            | Custodial      |           |
| 120       | 2000 | Ford F-150 Truck         | 1FTRF17W3YK"A40515   | 1125242 | Mar-02   | \$14,674 |            | Custodial      |           |
| 140       | 1997 | GMC Sonoma Pick-up Truck | 1GTCS14W1V8524567    | 5P30780 | 12-6-05  | \$3,900  | Yes        | Custodial      |           |
| 26        | 1992 | Hyster Forklift          | C177B04715M          |         | Jan-92   | \$15,000 |            | Facilities     |           |
| 29        | 1996 | Ford Pick-Up             | 1FTEF15NXTLB17196    | 381888  | Sep-98   | \$14,000 | Yes        | Facilities     |           |
| 47        | 1989 | Ford Bronco              | 1FMEU15N2KLB26751    | 3RDT683 | Jul-96   | \$11,800 | Yes        | Facilities     | Dec-00    |
| 51        | 1998 | Cushman Truck            | 6047712 Model:898611 |         | Feb-98   | \$15,000 |            | Facilities     |           |
| 57        | 1987 | Chevrolet Pickup         | 1GBGR24NXHJ110053    | 887484  | Dec-96   | \$7,900  | Yes        | Facilities     |           |
| 59        | 1997 | Cushman Truck            | 6022088 Model:898611 |         | Feb-97   | \$12,500 |            | Facilities     |           |
| 60        | 1997 | Cushman Truck            | 603179 Model:898611  |         | May-97   | \$12,500 |            | Facilities     |           |
| 64        | 1997 | Cushman Truck            | 6030131 Model:898611 |         | May-97   | \$12,500 |            | Facilities     |           |
| 66        | 1997 | Cushman Truck            | 6030449 Model:898611 |         | May-97   | \$12,500 |            | Facilities     |           |
| 85        | 1973 | GMC Pickup               | TCY143Z504086        | E400163 | Jun-89   | \$4,200  | No         | Facilities     | May-02    |
| 86        | 1989 | GMC Pickup               | 1GTBS14E4K8507664    | E400165 | Jun-89   | \$8,700  | Yes        | Facilities     |           |
| 89        | 1997 | Cushman Truck            | 6029366 Model:898611 |         | May-97   | \$12,500 |            | Facilities     |           |
| 108       | 1999 | Ford Ranger Pick-Up      | 1FTYR14V5XPA41018    | 1066358 | Nov-00   | \$15,300 |            | Facilities     |           |
| 117       | 1998 | Toyota 4-Runner          | JT3HN86R8WO166630    | 1114699 | Mar-02   | \$22,442 |            | Facilities     |           |
| 128       | 1999 | Ford Ranger P/U          | 1FTYR10V9XUA71422    | 6Y97474 | Mar 03   | \$5,000  |            | Facilities     |           |
| 156       | 1979 | Modrex (Jim Scinocca)    | 12791245S11259       | CCJ7667 | Nov-04   |          | No         | Facilities     |           |
| 127       | 2003 | Mighty Mover Trailer     | 4ACDU1326XC031461    |         | Oct-03   | \$2,000  |            | Facilities/GEN |           |
| 7         | 1974 | Tennant Sweeper          | 95422 GC12743        | E320864 | Feb-82   | \$4,200  |            | Grounds        | Dec-03    |
| 12        | 1984 | Toro Mower               | 30802-30175          |         | Sep-84   | \$500    |            | Grounds        | Jul-03    |
| 16        | 1970 | Cushman Flatbed          | 898414-7210          |         | Jan-75   | \$100    |            | Grounds        | Jul-03    |
| 18        | 1986 | Nissan Truck             | JN6NDO2S2GW102381    | E405648 | Jun-86   | \$8,500  | Yes        | Grounds        |           |
| 19        | 1965 | Dumpster                 | 5820                 |         | Jun-78   | \$3,000  |            | Grounds        | Jul-03    |
| 30        | 1984 | Turf Vac                 | 84-137-K582-S        |         | May-84   | \$3,000  |            | Grounds        | Jul-03    |
| 45        | 1969 | Cushman Flatbed          | 258400               |         | Sep-69   | \$1,900  |            | Grounds        | Jul-03    |
| 46        | 1969 | Cushman Cart             | 257911               |         | Sep-69   | \$1,500  |            | Grounds        | Jul-03    |



**Table 4.1 - continued**

## Facilities and Construction Vehicles / Equipment

| Vehicle # | Year | Description                 | VIN #                | License  | Acquired | Cost     | Smog Check | Department | Surplused |
|-----------|------|-----------------------------|----------------------|----------|----------|----------|------------|------------|-----------|
| 50        | 1997 | Cushman Truck               | 6026598 Model:898611 |          | Mar-97   | \$12,500 |            | Grounds    |           |
| 53        | 1998 | Toro Groundsmaster          | 30230                |          | Oct-98   | \$13,000 | No         | Grounds    |           |
| 54        | 1998 | John Deere Gator            | W004X2X022465        |          | Jan-98   | \$6,700  |            | Grounds    |           |
| 56        | 1998 | Cushman Refuse Vehicle      | 461B S/N 98009128    |          | Oct-98   | \$13,000 | No         | Grounds    |           |
| 72        | 1996 | Kubota Tractor              | 61420 Model:L2350    |          | Jul-96   | \$17,000 |            | Grounds    | Mar-00    |
| 74        | 1970 | Ford Dump Truck             | F61DRJ11028          | E861274  | Oct-82   | \$4,500  | No         | Grounds    | Jan-99    |
| 75        | 1995 | Toro Workman 3100           | 60111 Model:07210    |          | Nov-95   | \$10,900 |            | Grounds    |           |
| 76        | 1995 | Toro Reelmaster 2300        | 60140 Model:03426    |          | Nov-95   | \$18,000 |            | Grounds    |           |
| 77        | 1995 | Toro Groundsmaster 345      | 60141 Model:30789    |          | Nov-95   | \$15,000 |            | Grounds    |           |
| 78        | 1997 | John Deere Gator            | W004X2X020978        |          | Jan-97   | \$6,400  |            | Grounds    |           |
| 79        | 1997 | John Deere Gator            | W004X2X020643        |          | Jan-97   | \$6,400  |            | Grounds    |           |
| 82        | 1991 | John Deere Dump Truck       | W00623X001571        |          | Dec-90   | \$4,700  |            | Grounds    | Aug-02    |
| 83        | 1989 | John Deere Dump Truck       | W00622X001969        |          | Mar-89   | \$3,800  |            | Grounds    | Apr-02    |
| 84        | 1989 | John Deere Dump Truck       | W00622X001971        |          | Mar-89   | \$3,800  |            | Grounds    | Aug-01    |
| 87        | 1986 | Toro Turf Pro               | 03537-60390          |          | Jun-86   | \$3,000  |            | Grounds    | Jul-03    |
| 88        | 1995 | Schwarze Sweeper            | 1FDJF37G5SEA08717    | E381877  | Mar-98   | \$32,300 | Yes        | Grounds    | Jan-05    |
| 100       | 1989 | Marklift 62C                | S/N 789-M3589        |          | Dec-98   | \$30,300 |            | Grounds    |           |
| 102       | 1999 | John Deere 4 x 2 Gator      | 1004X2X047325        |          | Sep-99   | \$11,500 |            | Grounds    |           |
| 103       | 1999 | John Deere 4 x 2 Gator      | 1004X2X047324        |          | Sep-99   | \$11,500 |            | Grounds    |           |
| 105       | 2000 | Kubota Tractor              | 53C52, Model B21     |          | Feb-00   | \$16,200 |            | Grounds    |           |
| 111       | 2001 | John Deere Gator            | N004X2X065543        |          | Jan-01   | \$5,700  | No         | Grounds    |           |
| 119       |      | AZ-Tex Trailer              | 4ZBUE020XYK000466    | 4AB3041  |          |          |            | Grounds    |           |
| 121       | 2002 | John Deere Gator            | W004X2x080936        | E1041996 | Apr-02   | \$5,945  |            | Grounds    |           |
| 137       | 2004 | Toro Groundmaster           | 240000263            |          | June 04  | \$17,270 |            | Grounds    |           |
| 138       | 2005 | GMC Trk Mounted Vac Sweeper | J8DC4B16457011189    |          | 12-6-04  | \$67,064 |            | Grounds    |           |
| 143       | 2006 | Ford E350 Cargo Van         | 1FDWE35L36HB24575    |          | 4/11/06  |          |            | J Pierce   |           |
| 123       | 2002 | Gem Utility Vehicle         | 5ASAJ27422F023037    |          | Sep-02   | \$6,899  |            | Library    |           |
| 142       | 1997 | GMC Sonoma Pick-up Truck    | 1GTCS14W8V8524162    | 5P24866  | 1-30-06  | \$3,900  |            | Painters   |           |
| 116       | 2001 | Dodge Ele Gem Car           | 5ASAK27411F012963    |          | Dec-02   | \$9,676  |            | Safety     |           |

**Tools.** The Facilities / Maintenance Department possesses a full compliment of high-quality, modern hand and power tools to efficiently carry out its mission. These tools are selected and purchased after careful evaluation for quality, durability and value. Besides the compliment of “common” hand and power tools, the department has purchased the following special tools to increase our efficiency, reduce down time and save money by avoiding the necessity for outside services.

#### Specialized Tools

- 10-inch Delta table saw
- 12-inch Delta cut off saw
- Delta floor-mounted drill press
- 24-inch band saw
- Bosch electric jack hammer
- Milwaukee sawzall
- Milwaukee heavy-duty right angle drill
- Milwaukee heavy-duty hammer drill
- Greenlee hydraulic conduit bender
- Skill 7-inch circular saw
- Porter cable 3" x 21" belt sander
- Milwaukee ½-inch hammer drill
- Large sheet metal break
- Large sheet metal shear
- Upright spindle sander
- Truck-mount Fox 200 extractor
- Nilfisk Advance reel machines
- Heavy-duty area vacuums
- Auto scrubber
- Ride-on carpet extractor
- Portable steamer
- Walkway vacuum
- Street sweeper

- Trash cart
- Kubota tractor
- Mulching mowers
- Reel mower triplex
- John Deere carts
- Toro Workman cart
- Maxicom computer
- Stereo system for Commencement
- Modular stage system
- Ground penetrating radar system
- Structure scan radar system
- Scope meter
- Multi-channel volt and current logging system (5 Amp to 3000 Amp, 0 To 600 Volts)
- Pipe camera inspection system
- Utility line signal generator and locator
- Ferrous metal locator
- Rotating laser level
- Slope and pitch meter
- Theodolite
- Fiber-optic flexible-shaft inspection unit
- Confined space air quality monitor
- Light level meter
- Water balance meter
- High and low-range manometers
- Phase rotation meter
- Non-contact thermometer
- Laser photo / contact tachometer
- EMS data line protocol analyzer
- Current tracing system
- Short-circuit tracing system

## Fiscal Resources

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The Facilities and Construction Department has five principle sources of fiscal resources to support its operations:

1. Moneys allocated from the District's general fund.
2. Moneys allocated by the State for scheduled maintenance and hazardous materials remediation.
3. Moneys allocated by the State for capital improvements.
4. Moneys allocated for capital improvements from a 121 million dollar general obligation bond.

The following tables provide detailed information on the allocation and expenditures of funds from these four sources for the 2007-2008 fiscal year. Annual expenditures for prior years can be found in District budgets and bond expenditures can be found on the Bond Oversight Committee website.

### Facilities General Fund Budget

|      | <b>MAINTENANCE</b>                       | <b>2007-2008</b> |
|------|--|------------------|
|      | <b>01.000.0-00000-00440-XXXX-6510000</b> |                  |
| 2100 | SALARY CLASSIFIED REG                    | 679,183          |
| 2300 | SALARY CLASSIFIED HOURLY                 | 60,000           |
| 3220 | PERS CLASSIFIED                          | 63,205           |
| 3320 | OASDI CLASSIFIED                         | 45,829           |
| 3360 | MEDI CLASSIFIED                          | 10,718           |
| 3420 | H & W BENEFITS CLASSIFIED                | 131,666          |
| 3520 | UN EMP INS CLASSIFIED                    | 370              |
| 3620 | WK COMP CLASSIFIED                       | 17,001           |
| 4300 | SUPPLIES - GENERAL                       | 140,000          |
| 4380 | MAINTENANCE SUPPLIES                     | 40,000           |
| 5100 | CONSULTANT                               | 0                |
| 5200 | CONFERENCE MILEAGE                       | 0                |
| 5600 | RENTS,LEASES                             | 100,000          |
| 5630 | REPAIRS                                  | 0                |
| 5800 | OTHER SERVICES                           | 35,000           |
| 5810 | SERVICE AGREEMENTS                       | 50,000           |
| 6100 | SITE IMPROVEMENTS                        | 15,000           |
| 6200 | REMODELING BUILDINGS                     | 10,000           |
| 6400 | EQUIPMENT                                | 15,000           |
|      | <b>TOTAL EXPENDITURE</b>                 | <b>1,412,972</b> |

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

|      | <b>GROUNDS</b>                               | <b>2007-2008</b> |
|------|--|------------------|
|      | <b>01.0-00000.0-00000-00442-XXXX-6550000</b> |                  |
| 2100 | SALARY CLASSIFIED REG                        | 572,929          |
| 2300 | SALARY CLASSIFIED HOURLY                     | 43,000           |
| 3220 | PERS CLASSIFIED                              | 53,317           |
| 3320 | OASDI CLASSIFIED                             | 38,188           |
| 3360 | MEDI CLASSIFIED                              | 8,931            |
| 3420 | H & W BENEFITS CLASSIFIED                    | 120,690          |
| 3520 | UN EMP INS CLASSIFIED                        | 308              |
| 3620 | WK COMP CLASSIFIED                           | 14,166           |
| 4300 | SUPPLIES                                     | 45,000           |
| 5100 | CONSULTANT                                   | 0                |
| 5200 | CONFERENCE MILEAGE                           | 0                |
| 5610 | RENTS, LEASES                                | 1,000            |
| 5630 | REPAIRS                                      | 35,000           |
| 5800 | OTHER SERVICES                               | 15,000           |
| 5810 | SERVICE AGREEMENTS                           | 0                |
| 6100 | SITE IMPROVEMENT                             | 5,000            |
| 6400 | EQUIPMENT TRACTORS                           | 37,500           |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>990,029</b>   |

|      | <b>CUSTODIAL</b>                             | <b>2007-2008</b> |
|------|--|------------------|
|      | <b>01.0-00000.0-00000-00441-XXXX-6530000</b> |                  |
| 2100 | SALARY CLASSIFIED REG                        | 1,160,904        |
| 2300 | SALARY CLASSIFIED HOURLY                     | 50,000           |
| 3220 | PERS CLASSIFIED                              | 102,943          |
| 3320 | OASDI CLASSIFIED                             | 75,076           |
| 3360 | MEDI CLASSIFIED                              | 17,558           |
| 3420 | H & W BENEFITS CLASSIFIED                    | 236,625          |
| 3520 | UN EMP INS CLASSIFIED                        | 605              |
| 3620 | WK COMP CLASSIFIED                           | 27,851           |
| 4300 | SUPPLIES GENERAL                             | 126,000          |
| 4370 | SUPPLIES CUSTODIAL                           | 16,000           |
| 5100 | CONSULTANT                                   | 0                |
| 5200 | CONFERENCE MILEAGE                           | 0                |
| 5600 | RENTS,LEASES                                 | 0                |
| 5630 | REPAIRS                                      | 4,000            |
| 5800 | OTHER SERVICES                               | 0                |
| 5810 | SERVICE AGREEMENTS                           | 4,000            |
| 6400 | EQUIPMENT                                    | 20,000           |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>1,841,562</b> |

|      | <b>FACILITIES</b>                            | <b>2007-2008</b> |
|------|--|------------------|
|      | <b>01.0-00000.0-00000-00444-XXXX-6590000</b> |                  |
| 2100 | SALARY CLASSIFIED REG                        | 333,714          |
| 2300 | SALARY CLASSIFIED HOURLY                     | 50,000           |
| 2397 | SALARY CLASSIFIED FWS                        | 0                |
| 3220 | PERS CLASSIFIED                              | 31,055           |
| 3320 | OASDI CLASSIFIED                             | 23,790           |
| 3360 | MEDI CLASSIFIED                              | 5,564            |
| 3420 | H & W BENEFITS CLASSIFIED                    | 57,895           |
| 3520 | UN EMP INS CLASSIFIED                        | 192              |
| 3620 | WK COMP CLASSIFIED                           | 8,825            |
| 4300 | SUPPLIES                                     | 40,000           |
| 4360 | SUPPLIES, GAS, OIL, TIRES                    | 55,000           |
| 5100 | CONSULTANT                                   | 0                |
| 5200 | CONFERENCE MILEAGE                           | 0                |
| 5550 | UNIFORM RENTALS                              | 15,000           |
| 5600 | RENTALS, LEASES                              | 6,000            |
| 5630 | REPAIRS                                      | 50,000           |
| 5800 | OTHER SERVICES                               | 16,000           |
| 5810 | SERVICE AGREEMENTS                           | 50,000           |
| 5850 | UPS DELIVERY                                 | 0                |
| 6100 | SITE IMPROVEMENT                             | 5,000            |
| 6200 | BUILDINGS                                    | 5,000            |
| 6400 | EQUIPMENT                                    | 87,500           |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>840,535</b>   |
|      | <b>TOTAL ALL DEPARTMENTS</b>                 | <b>5,085,098</b> |

### State Scheduled Maintenance Allocations

For 2006-2007 Citrus College received a block grant of \$609,909 from the State which was to be used for scheduled maintenance projects and required a District match of \$128,938. These combined funds were used to upgrade HVAC systems in our Education Development Center, Infant Care Building and Hayden Hall.

For 2007-2008 Citrus College received a block grant of \$126,025 from the State which is for scheduled maintenance projects and requires a district match of \$126,025. These funds have been allocated for HVAC upgrades to our Video Technology Building.

For the past two fiscal years, the college has not been allocated funds from the State for hazardous materials remediation projects.

## State Capital Improvements Allocations

Over the past year the State of California has allocated substantial funding for capital improvements at Citrus College: \$14,697,437 has been allocated for design and construction of a new Vocational Technology Complex; and \$123,000 has been allocated for preliminary plans for a new Student Services Building. Currently, construction of the Vocational Technology Complex is underway, and plans for the Student Services Building have been approved by DSA.

## Bond Fund Expenditures for Capital Improvements

|      |   |                  |
|------|---|------------------|
|      | <b>ADMINISTRATIVE</b>                         | <b>2007-2008</b> |
|      | <b>42.0-00000.0-XXXXX-00530-XXXX-7100000</b>  |                  |
|      | SUPPLIES AND SALARIES                         | 400,000          |
|      | <b>TOTAL EXPENDITURE</b>                      | <b>400,000</b>   |
|      |   |                  |
|      | <b>FIELD HOUSE AND CONCESSION BUILDING</b>    | <b>2007-2008</b> |
|      | <b>42.0-00000.0-80100-00530-XXXX-7100000</b>  |                  |
| 4300 | SUPPLIES                                      | 300              |
| 5100 | CONSULTANT                                    | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION             | 240,000          |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER               | 324,000          |
| 5600 | RENTS - LEASES - REPAIRS                      | 0                |
| 5800 | OTHER SERVICES                                | 55,830           |
| 5880 | OTHER CHARGES/FEES                            | 0                |
| 6100 | SITE IMPROVEMENTS                             | 0                |
| 6200 | BUILDING                                      | 4,470,000        |
| 6400 | EQUIPMENT/FURNITURE                           | 0                |
| 7900 | CONTIGENCY                                    | 0                |
|      | <b>TOTAL EXPENDITURE</b>                      | <b>5,090,130</b> |
|      |   |                  |
|      | <b>PARKING LOTS &amp; MASTER PARKING PLAN</b> | <b>2007-2008</b> |
|      | <b>42.0-00000.0-80300-00530-XXXX-7100000</b>  |                  |
| 4300 | SUPPLIES                                      | 0                |
| 5100 | CONSULTANT                                    | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION             | 40,525           |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER               | 108,000          |
| 5600 | RENTS - LEASES - REPAIRS                      | 0                |
| 5800 | OTHER SERVICES                                | 2,500            |
| 5880 | OTHER CHARGES/FEES                            | 0                |
| 6100 | SITE IMPROVEMENTS                             | 1,303,025        |
| 6200 | BUILDING                                      | 0                |
| 6400 | EQUIPMENT/FURNITURE                           | 0                |
| 7900 | CONTIGENCY                                    | 89,000           |
|      | <b>TOTAL EXPENDITURE</b>                      | <b>1,543,050</b> |



|      |  |                  |
|------|--|------------------|
|      | <b>CENTER FOR INNOVATION</b>                 | <b>2007-2008</b> |
|      | <b>42.0-00000.0-80600-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 600              |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 137,333          |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 590,441          |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 70,648           |
| 5880 | OTHER CHARGES/FEES                           | 51,220           |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 3,918,000        |
| 6400 | EQUIPMENT/FURNITURE                          | 770,162          |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>5,538,404</b> |
|      |  |                  |
|      | <b>STUDENT SERVICES</b>                      | <b>2007-2008</b> |
|      | <b>42.0-00000.0-80700-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 300              |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 1,144,256        |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 110,000          |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 0                |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>1,254,556</b> |
|      |  |                  |
|      | <b>VOCATIONAL TECHNOLOGY COMPLEX</b>         | <b>2007-2008</b> |
|      | <b>42.0-00000.0-80900-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 55,500           |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 0                |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>55,500</b>    |
|      |  |                  |

|      |  |                  |
|------|--|------------------|
|      | <b>MAIN GYM REMODEL</b>                      | <b>2007-2008</b> |
|      | <b>42.0-00000.0-81000-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 300              |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 10,000           |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 240,000          |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 0                |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>250,300</b>   |
|      |  |                  |
|      | <b>CAMPUSWIDE ROOFING</b>                    | <b>2007-2008</b> |
|      | <b>42.0-00000.0-81400-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 53,000           |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>53,000</b>    |
|      |  |                  |
|      | <b>CENTRAL PLANT</b>                         | <b>2007-2008</b> |
|      | <b>42.0-00000.0-81500-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 100              |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 9,500            |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 5,190            |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 726,000          |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>740,790</b>   |
|      |  |                  |

|      |  |                  |
|------|--|------------------|
|      | <b>HVAC UPGRADES AT EDC BUILDING</b>         | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82406-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 37,000           |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>37,000</b>    |
|      |  |                  |
|      | <b>HVAC UPGRADES AT INFANT CARE</b>          | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82407-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 20,000           |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>20,000</b>    |
|      |  |                  |
|      | <b>HVAC UPGRADES AT LECTURE HALL</b>         | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82409-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 10,500           |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>10,500</b>    |
|      |  |                  |

|      |  |                  |
|------|--|------------------|
|      | <b>HVAC PROGRAM RELOCATION</b>               | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82410-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 720              |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 8,000            |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>8,720</b>     |
|      |  |                  |
|      | <b>HVAC UPGRADES AT PHYSICAL SCIENCE</b>     | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82411-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 70,750           |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 610,000          |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>680,750</b>   |
|      |  |                  |
|      | <b>HVAC UPGRADES AT VIDEO TECHNOLOGY</b>     | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82412-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 53,000           |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 0                |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 186,000          |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>239,000</b>   |
|      |  |                  |

|      |  |                  |
|------|--|------------------|
|      | <b>SECURITY BUILDING</b>                     | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82500-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 0                |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 1,500            |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 0                |
| 6400 | EQUIPMENT/FURNITURE                          | 0                |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>1,500</b>     |
|      |  |                  |
|      | <b>LB REMODEL</b>                            | <b>2007-2008</b> |
|      | <b>42.0-00000.0-82600-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 20,000           |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 61,000           |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 21,000           |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 725,000          |
| 6400 | EQUIPMENT/FURNITURE                          | 64,000           |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>891,000</b>   |
|      |  |                  |
|      | <b>SOFTBALL FIELDS</b>                       | <b>2007-2008</b> |
|      | <b>42.0-00000.0-83700-00530-XXXX-7100000</b> |                  |
| 4300 | SUPPLIES                                     | 0                |
| 5100 | CONSULTANT                                   | 0                |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 20,000           |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 132,000          |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                |
| 5800 | OTHER SERVICES                               | 2,600            |
| 5880 | OTHER CHARGES/FEES                           | 0                |
| 6100 | SITE IMPROVEMENTS                            | 0                |
| 6200 | BUILDING                                     | 490,000          |
| 6400 | EQUIPMENT/FURNITURE                          | 200,000          |
| 7900 | CONTIGENCY                                   | 0                |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>844,600</b>   |
|      |  |                  |

|      | <b>WALKWAY REPLACEMENTS</b>                  | <b>2007-2008</b>  |
|------|--|-------------------|
|      | <b>42.0-00000.0-83900-00530-XXXX-7100000</b> |                   |
| 4300 | SUPPLIES                                     | 0                 |
| 5100 | CONSULTANT                                   | 0                 |
| 5110 | CONSULTANT - TESTING & INSPECTION            | 1,500             |
| 5120 | CONSULTANT - ARCHITECT/ENGINEER              | 0                 |
| 5600 | RENTS - LEASES - REPAIRS                     | 0                 |
| 5800 | OTHER SERVICES                               | 1,400             |
| 5880 | OTHER CHARGES/FEES                           | 0                 |
| 6100 | SITE IMPROVEMENTS                            | 185,834           |
| 6200 | BUILDING                                     | 0                 |
| 6400 | EQUIPMENT/FURNITURE                          | 0                 |
| 7900 | CONTIGENCY                                   | 0                 |
|      | <b>TOTAL EXPENDITURE</b>                     | <b>188,734</b>    |
|      | <b>TOTAL ALL BOND EXPENDITURES</b>           | <b>17,847,534</b> |

### Utility Provider Incentives

The following table lists incentive moneys that Citrus College has either received or is scheduled to receive for energy-efficiency projects implemented from 2006 through 2008.

| <b>PROJECT</b>  | <b>UTILITY PROVIDER</b>    | <b>AMOUNT</b>  |
|---|----------------------------|----------------|
| HVAC units replacements with VAV conversions, sensors and controls                              | Southern California Edison | 533,360        |
| HVAC units replacements with VAV conversions, sensors and controls                              | Southern California Edison | 19,722         |
| Central Plant – chiller retrofits and new boilers, whole building major infrastructure projects | Siempra Energy             | 18,495         |
| Central Plant – provide new chillers, cooling towers, boilers and pumps                         | Southern California Edison | 162,968        |
| Lighting controls, day lighting systems – exit lights   | Southern California Edison | 12,088         |
| HVAC units replacements with VAV conversion, sensors and controls                               | Southern California Edison | 13,135         |
| <b>TOTAL REBATES</b>  |                            | <b>279,769</b> |

# Program Performance

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## Summary

The Facilities and Construction Department, as described in Section I of this Program Review, performs a wide variety of duties and tasks to support the college's mission. This section of the Program Review endeavors to objectively measure the performance of the department by identifying the quantity of work performed and the quality of the environment produced by this work.

## Quantitative Performance Measurements by Section

**Engineering.** In performing its function within the Facilities and Construction Department, the Engineering Section provides ongoing oversight of campus infrastructure operation, working closely with the Maintenance Section and a host of contracted service providers, design professionals and engineers. On a daily basis, the Engineering Section provides essential direction, information and recommendations to all of the aforementioned. In addition to this, the Engineering Section has completed the following specific projects in 2006 – 2007.

- Reviewed Architectural and Engineering plans for completeness, constructability, and conformance with college standards for the following projects:
  - Central Plant #2
  - Stadium Field House and Gate House
  - Vocational Technology Complex
  - Softball Fields
  - East Parking Lots
  - Campus Center Quad Lighting upgrade
  - Baseball Complex improvements
  - Student Services Building
  - Professional Center RN program remodel

- Completed Engineering and Design work for the following facilities improvements:
  - Relocate HVAC instructional Program
  - Portable Building #2 Site utilities and internal improvements
  - Vocational Technology project – relocation of communication infrastructure
  - Remodel of Technical Services Office and workshop area
  - Consolidation of temporary storage containers in one area
  - Standby generators in the Facilities & Stadium, Campus Center and a portable emergency generator unit
  
- Performed infrastructure testing and assessment at various locations campus wide including:
  - Camera Inspections and cleaning of main line sewers
  - Electrical Power trending at the Central Plant #1, the Facilities Office and the Stadium emergency lights
  - Main Parking Lot lighting
  
- Performed project management for the following projects:
  - Infant Center HVAC upgrade
  - Hayden Hall HVAC upgrade
  - Educational Development Center HVAC upgrade
  - Life Science classrooms HVAC upgrade
  - LB Building HVAC upgrade
  - Little Theater HVAC upgrade
  - PAC HVAC upgrade
  - Campus Wide Fire Alarm repairs
  
- Provided as-built site information, utility location services, existing building drawings and maps for:
  - Central Plant #2
  - Stadium Field House and Gate House
  - Vocational Technology Complex



- Softball Fields
  - East Parking Lots
  - Campus Center Quad Lighting upgrade
  - Baseball Complex improvements
  - Student Services Building
  - Professional Center RN program remodel
  - Campus Wide Fire Alarm repairs
  - HVAC upgrades at Infant Center, Hayden Hall, Educational Development Center, Life Science classrooms, LB Building, Little Theater and the PAC
  - Updated campus map for publications department
  - Floor plans of all buildings on campus for Facilities Web Site, Facilities Access Office for key locations, Fire Evacuation plans for posting in classrooms and offices, Areas of Emergency Evacuation Assistance for disabled persons, Campus Security Emergency handbook and Maintenance Handbook
- Selected and specified the following equipment upgrades:
    - Energy Management system server
    - Portable computers for HVAC Technicians
    - Portable computer for Facilities Access and Fire Alarm Technician

**Maintenance.** In performing its function within the Facilities and Construction Department, the Maintenance Section responds to routine and emergency calls for service daily. It is, after all, the principal mission of the Maintenance Section to insure that the educational mission of the college is disrupted as little as possible. But, the bulk of the work performed by the Maintenance Section is planned, prioritized, scheduled and executed utilizing a computer work order program known across the campus as the FIXit line. The following tables 5.1 and 5.2 below show the type and quantity of work orders completed for 2006 and 2007:

**Table 5.1 - Work Orders for 2006**

| TYPE OF WORK ORDER       | TOTAL RECEIVED | TOTAL COMPLETED | PERCENTAGE COMPLETE |
|--------------------------|----------------|-----------------|---------------------|
| Electrical               | 176            | 171             | 97%                 |
| Health & Safety          | 75             | 75              | 100%                |
| HVAC                     | 682            | 671             | 98%                 |
| Locks / Keys             | 254            | 254             | 100%                |
| Painting                 | 323            | 317             | 98%                 |
| Preventative Maintenance | 180            | 180             | 100%                |
| Utility Work             | 1,667          | 1,667           | 100%                |
| Other Work               | 1,982          | 1,951           | 98%                 |
| Grand Total              | 5,339          | 5,286           | 99%                 |

**Table 5.2 - Work Orders for 2007**

| TYPE OF WORK ORDER       | TOTAL RECEIVED | TOTAL COMPLETED | PERCENTAGE COMPLETE |
|--------------------------|----------------|-----------------|---------------------|
| Electrical               | 231            | 223             | 97%                 |
| Health & Safety          | 71             | 71              | 100%                |
| HVAC                     | 626            | 621             | 99%                 |
| Locks / Keys             | 208            | 206             | 99%                 |
| Painting                 | 234            | 234             | 100%                |
| Preventative Maintenance | 149            | 149             | 100%                |
| Utility Work             | 1,532          | 1,526           | 99%                 |
| Other Work               | 1,550          | 1,528           | 99%                 |
| Grand Total              | 4,601          | 4,561           | 99%                 |

In addition to work orders that are initiated by work requests via the FIXit line, many work orders aimed at preventative maintenance are issued based upon a Master Maintenance Schedule. The types and frequency of these Master Maintenance work orders are listed below in the Master Maintenance Calendar.

**Table 5.3 - Master Maintenance Calendar**

| <b>PROJECT</b>                      | <b>SCHEDULING<br/>DATE</b> | <b>SERVICE<br/>DATE</b> |
|-------------------------------------|----------------------------|-------------------------|
| Clarifier Cleaning / Maintenance    | January                    | January                 |
| Backflow Testing                    | February                   | May                     |
| Roofing Contracts                   | February                   | June                    |
| RR Partition Repairs / Replacements | March                      | June                    |
| Repair & Adjust All Irrigation      | March                      | June                    |
| Gas Nozzle Testing / UST Testing    | April                      | May                     |
| Review Service Agreements           | April                      | May                     |
| Concrete Projects                   | April                      | July                    |
| Asphalt Contracts                   | April                      | July                    |
| Carpet Replacements                 | April                      | July                    |
| Tree Trimming                       | May                        | May                     |
| Graduation Preparation              | May                        | May                     |
| Emergency Lighting Inspection       | May                        | June                    |
| Budget Preparation                  | May                        | June                    |
| Bleacher Inspection                 | May                        | June                    |
| Painting Projects                   | May                        | June                    |
| Fire Extinguisher Service           | May                        | July                    |
| Fire Alarm Batteries                | May                        | July                    |
| Chain Link Repairs                  | May                        | July                    |
| Sewer Main Line Inspections         | May                        | July                    |
| Gym Floor Refinishing               | May                        | August                  |
| EPA Number Renewal                  | June                       | June                    |
| <b>PROJECT</b>                      | <b>SCHEDULING</b>          | <b>SERVICE</b>          |

|   | <b>DATE</b>   | <b>DATE</b> |
|---|---------------|-------------|
| Repair of Custodial Power Equipment       | June          | July        |
| Carpet Extraction Campus-wide             | June          | July        |
| Central Plant Annual Maintenance          | September     | December    |
| Hazardous Material Business Plan          | December      | December    |
| CDC Playground Inspection                 | December      | December    |
| Tree Spraying                             | December      | February    |
| Used Oil Recycling                        | On Demand     |             |
| Paper Recycling                           | On Demand     |             |
| Hazardous Bio/Medical Waste Removal       | Weekly        |             |
| Fertilize Grass Areas                     | Bi-Monthly    |             |
| Lock Battery Replacement                  | Monthly       |             |
| Fertilize Roses                           | Monthly       |             |
| Hazardous Chemical Waste Removal          | Monthly       |             |
| Grease Trap Service                       | Quarterly     |             |
| Clarifier Cleaning / Maintenance          | Bi-Annually   |             |
| Emergency Plan Updates for Local & County | Bi-Annually   |             |
| Annual Reports                            | Annually      |             |
| Blanket PO Renewals                       | Annually      |             |
| Air Compression Inspection                | Every 5 Years |             |

**Grounds.** Monday through Saturday, in support of the college's educational mission, the Citrus College Grounds Section is responsible for the maintenance of over 90 acres of walkways, roadways, parking lots, landscape areas and athletic facilities. This maintenance includes: trash pick-up, mowing and edging of lawns, caring for trees, shrubs and flowering plants, cleaning parking lots, and maintaining athletic fields.

In addition to this daily workload, the department sets up and provides support for a wide variety of athletic events and rental events that utilize our outdoor facilities. In 2006 – 2007, some of these events included:

- 39 baseball games

- 18 track meets
- 44 football games
- 7 softball games
- 92 soccer games
- 44 special events requiring setups/plants
- Citrus graduation
- Glendora High School graduation
- Various landscaping projects
- Restriping and painting of parking lots

**Operations.** In support of the college's educational mission, the Operations Section of the Facilities and Construction Department cleans over 650,000 square feet of classroom, laboratory and office space every night, Monday through Friday. Additionally, three day custodians continually service eating, restroom, and other facilities throughout the day, responding to calls for emergency clean-ups, setups and other requests.

In addition to this daily routine cleaning, the Operations Section employs a floor crew equipped with an industrial steam-cleaning unit to professionally clean carpets and strip and wax resilient flooring. The Operations Section also performed the following special project work during the summer, spring and winter break periods:

- Checked and replaced interior lights and clean diffusers
- Washed walls
- Cleaned vents and registers
- Performed high dusting
- Cleaned windows, inside and out
- Stripped and waxed resilient floors

- Cleaned carpets, building by building
- Detailed floor corners, baseboards, sinks, toilets and fixtures
- Performed hospital-level cleaning, detailing and sanitizing in technical buildings, locker rooms and laboratories
- Cleaned balconies, stairways and corridors
- Performed outside cleaning and dusting of buildings

**Environmental Health and Safety.** As described in Section I of this Program Review, the Environmental Health and Safety Section of the Facilities and Construction Department performs a wide variety of routine duties and tasks to insure a safe and healthy learning and working environment on campus, and insure the college's compliance with a host of regulatory agencies. But this section of the department also takes on "project" work to fulfill its mission and assist other sections within the department. In 2006 – 2007, the Environmental Health and Safety Section completed the following projects in support of the department's mission:

- Oversaw the hazardous materials clean-up of the Automotive Technology program in preparation for new construction.
- Prepared of the District's Hazardous Material Business Plan
- Oversaw the testing and certification of campus backflow devices
- Accompanied Local Enforcing Agencies (OSHA, LA, Co Fire, Health Hazmat, Sanitation, Health Depts.) on walk-through inspections of campus
- Administered employee safety programs (IIPP, Hazard Communication, BBP Exposure control, Asbestos Awareness)
- Conducted in-service training for employees forklift and utility cart use
- Located and coordinated the repair walkway trip hazards campus-wide
- Inspected and maintained all emergency eyewash/shower stations on campus

- Investigated accident and injury reports received
- Checked all fire extinguishers throughout campus buildings and scheduled their annual inspection
- Scheduled five-year fire sprinkler system inspections
- Scheduled disaster preparedness training sessions
- Distributed and keep updated, The District "Emergency Plan & Disaster Preparedness Manual"
- Attended California Community College System Office workshops for ICS 100, 200 & IS 700 & 800 and SEMS training for incorporation into District's existing EP&DP Manual
- Performed campus-wide ergonomic evaluations for District employees
- Conducted mold assessments and remediation operation
- Managed the hazardous and biological wastes generated throughout campus
- Contracted and scheduled pickups of wastes generated on campus
- Oversaw the required recycling programs for paper, OCC, plastics, metals, e-wastes and automotive fluids
- Oversaw the recycling of universal wastes; fluorescent light tubes, HID lamps, ballasts, automotive oil filters etc.
- Administered and trained employees for SWRCB's Storm Water Pollution Prevention Program
- Completed and submitted annual/bi-annual compliance reports to LEA's
- (Cal EPA, SWRCB, CIWMB, DTSC, BOE, SCAQMD)
- As the District's official ETC, administered the SCAQMD's annual ECRP survey
- Solicited and procured necessary Emissions Credits to satisfy SCAQMD's Rule 2202 requirements
- Oversaw AQMD's electric generator use permit and fee requirements

- Performed campus-wide general safety inspections of both building interiors and grounds
- Monitored and scheduled maintenance of clarifiers throughout campus
- Scheduled testing for Cross Connection Prevention Program - annual testing of BPD's

**Construction.** As described in Section I of this Program Review, the Construction Section of the Facilities and Construction Department performs a host of duties and tasks related to the planning, scheduling, oversight and coordination of capital building projects. In 2006 – 2007 the Construction Section performed the following specific duties:

- Completed Master Scheduling for the following projects:
  - East Parking Lot
  - Center for Innovation
  - Central Plant
  - Field House and Concession Building
  - Fine Arts Building
  - HVAC Upgrades at Various Locations on Campus
  - Main Gym Remodel
  - Portable 1 – Swing Space
  - Security Building
  - Softball Fields Complex
  - Student Services
  - Vocational Technology Building
  - West Campus Access Drive
  
- Completed preliminary planning for the following projects:
  - East Parking Lot
  - Fine Arts Building
  - Liberal Arts Building and Restroom Remodel
  - Main Gym Remodel



- Marquee at Main Entrance
  - Nursing Skills Lab Remodel
  - Security Building
  - Vocational Technology Building
  - West Campus Access Drive
- Issued Architectural, Engineering, Geotechnical and/or Construction contracts for the following projects:
    - Campus Walkway Replacements
    - Campus Wide Fire Alarm Upgrades
    - Campus Center Quad Lighting
    - Center for Innovation
    - Center for Innovation – Furniture Planning
    - Central Plant
    - East Parking Lot
    - Field House and Concession Building
    - HVAC Upgrades at Various Locations on Campus
    - Liberal Arts Building and Restroom Remodel
    - Main Gym Remodel
    - Nursing Skills Lab Remodel
    - Portable 1 – Swing Space for Vocational Technology
    - Quad Lighting Project
    - Softball Fields Complex
    - Student Services Building
    - West Campus Access Drive
    - Vocational Technology Building
- Completed Project Management and Inspection Services for the following projects:
    - Central Plant
    - Campus Walkway Replacement
    - Campus Wide Fire Alarm Upgrades
    - Campus Center Quad Lighting
    - Center for Innovation

- Central Plant
- East Parking Lot
- Emergency Generator Placement
- Facilities Compound Block Wall
- Field House and Concession Building
- HVAC Upgrades at Various Locations on Campus
- Main Gym Remodel
- Nursing Skills Lab Remodel
- Portable 1 – Swing Space for Vocational Technology
- Quad Lighting Project
- Softball Fields Complex
- Student Services Building
- West Campus Access Drive
- Vocational Technology Building

## Qualitative Performance Measurements

While the Facilities and Construction Department strives to provide quality facilities and a high-quality learning environment, measurement of “quality” remains a tricky endeavor – “quality” is, to a large extent, a relative and subjective term. Nonetheless, the department has developed standards for products, materials and services aimed at getting the best quality for the cost. We believe these standards, along with the commitment and pride of our employees, has, in fact, resulted in a high-quality learning and working environment here at Citrus College. Two recent surveys support this conclusion.

In 2003 Citrus College underwent a six-year accreditation conducted by a five-member evaluation team of educators and administrators from other community colleges. The following is an excerpt from the team’s evaluation report that focuses largely on the quality of Citrus College’s facilities:

### **Observations**

It is very evident that the college has made significant progress towards providing the physical resources needed to support its educational programs and services. The renovations of the Physical Science Building, cosmetology, Hayden Memorial Library and completion of the adaptive physical education facility plus several small construction projects clearly support this statement. Further, the construction of the new Math/Science building is testimony to an aggressive Educational and Facilities Master Plan and Master Plan Construction Program. These plans, addressing projected enrollments of 16,036 students by 2010, identify 28 projects including 13 state approved scheduled maintenance projects. An ever-evolving list, a more recent document, dated September 2003, identifies 34 projects. At present, however, although under-utilization of facilities has been documented, it is very apparent that additional faculty office space is required.

Existing facilities are well maintained and reflect a very attractive, positive and safe learning environment. This has been accomplished with lean but enthusiastic maintenance, grounds and custodial staffs. Health and safety clearly are considered as high priority and the contributions of the Owl Patrol must be acknowledged. It is very evident that these college employees take great pride in the campus and their part of its educational mission.

Campus equipment, including computer technology and instructional equipment needed to support a diverse array of educational programs, is well maintained. Specific needs are identified through program review and faculty has indicated they are, in general and over time, well supported. Day to day operational expenses including instructional consumables always seem to be covered. There is concern, however, that short- term capital needs, 23 identified outside of the review cycle, may not be addressed and that faculty are frequently not consulted with respect to definition of needs and planning for the future. This was particularly evident when computer technology was discussed. Faculty felt a need for greater participation in the planning processes related to selecting and managing information technology.

The Educational and Facilities Master Plans and Five-Year Construction Plan, 2004-2008 clearly outlines campus facilities needed to support the educational goals of diverse student bodies until the year 2010. It reflects a great deal of planning and consideration of changes in local demographics and future enrollments. Although a current student satisfaction survey is not available for evaluation, conversations with students indicated they are pleased with the facilities and enjoy coming to campus. Additional conversations with faculty, classified management and classified employees also indicated their pleasure with the present campus physical plant. Moreover, although they indicated they were not involved in the planning process, they expressed strong approval for the campus wide makeover proposed in the Recommended Master Plan. In the past, the college has aggressively sought funding for all of its projects and it is clear that this strategy will continue to be utilized as they explore a variety of potential financial resources, including the Citrus College Foundation, associated student body, grants, business and industry partners, a general obligation bond and public sources.

In 2007 the Citrus College office of Institutional Research conducted an "All Employee Survey" to measure employee perception and satisfaction with the Citrus College work environment. The following is an excerpt from this survey that focuses on employee satisfaction with campus facilities.

### **Organization**

The items that comprised the Organization dimension examined the adequacy of campus facilities and safety. The items asked respondents to rate their satisfaction with campus facilities (e.g. facilities meeting employees' needs, adequate parking on campus, handicapped access, adequate assigned workspace.) Respondents were asked to rate their access to safety information (e.g. crime and accident prevention, disaster preparedness), their confidence in the abilities of security personnel (e.g. answer questions about safety and security) as well as their perception of safety on

campus (e.g. feeling safe on campus, adequate lighting on walkways and in parking lots).

### Results

The item regarding the feeling of safety on campus received the highest rating (90.9% strongly agree or agree). Also rated favorably was that campus facilities are adequately maintained (83.7%) and that the campus facilities adequately meet the needs of the employees (82.5%). Overall, many respondents are happy with the campus as a whole, with the exception of parking, lighting, and employees' input with regards to construction.

The item receiving the most unfavorable rating is opportunity for input on facility construction and remodeling for the area (30.9% disagreed/strongly disagreed). The second item that also received a highly unfavorable rating was campus parking (50.6% agreed that there is sufficient parking).

## **Goals and Objectives**

The principal goal of the Facilities and Construction Department remains the same: to support the college's educational mission by planning, building and maintaining the buildings, facilities and equipment necessary to provide a high-quality learning and working environment. To achieve this goal, the department will strive to attain the following objectives in over the next five years.

- Careful and methodical implementation of the District's Master Plan, including comprehensive long-range planning to identify and make provisions for the secondary effects caused by the plan's implementation. These provisions will include: program relocations, accommodations for temporary swing space, infrastructure and utility reconfiguration, and all the logistical planning necessary to keep the campus operational and functional through construction activities.
- Continued implementation of the department Energy Conservation Master Plan, which identifies over twenty projects aimed at increasing energy-efficiency across the campus. These projects include the replacement and upgrade of building HVAC systems, improvements to our energy management system, the installation of occupancy sensors, the use of high-efficiency LED lighting and the expansion of our heating hot water

and cooling chilled water distribution system.

- Implementation of a campus-wide landscaping project aimed at creating attractive landscaped areas for student and faculty use, while conserving water and benefiting the global environment.
- Continued proactive preventative maintenance to reduce equipment downtime and minimize disruption to campus programs.
- Installation of additional campus and parking security lighting.
- Modernization of numerous campus restrooms.
- Reconfiguration of campus parking to maximize the amount of parking available to students and faculty.
- Installation of updated campus directories to assist students in locating classrooms and other campus facilities.
- Continued rapid-response to the daily maintenance and repair needs across the campus.

# Special Accomplishments

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## Awards / Grants

Over the past several years, Citrus College has received numerous awards for the design and operation of its facilities. Some of these awards include the following:

- 2004 Award of Excellence from the Community College Facility Coalition for the Design and Construction of the Citrus College Library.
- 2005 Award of Excellence from the Community College Facility Coalition for the Design and Construction of the Citrus College Mathematics Building.
- 2006 Electrical Excellence Award from the National Electrical Contractors Association for the Citrus College Stadium Lighting Project.
- 2007 Award for Outstanding Water Conservation Efforts from Azusa Light and Water Department.
- 2007 \$533,360 awarded to Citrus College by Southern California Edison for energy-efficiency retrofits to HVAC systems in the Lecture Halls, Hayden Hall and Educational Development Center.
- 2007 \$18,495 awarded to Citrus College by Siempra Energy (Southern California Gas Company) for the installation of high-efficiency boilers in the new Central Plant.
- 2007 \$162,968 awarded to Citrus College by Southern California Edison for the installation of high-efficiency chillers and thermal energy storage in the new Central Plant.

## Leadership Roles

Several members of the staff in the Facilities and Construction Department fill key leadership roles in various organizations and committees in the

community college environment. Some of these leadership roles include the following:

- Senior advisory role on the Citrus College Physical Resource Committee
- Public Relations Officer for CSEA
- Secretary for CSEA
- Member of Division of State Architect Choice Committee
- Subcommittee Chair for California Community College and Investor Owned Utilities Partnership for Energy Conservation
- Subcommittee Chair for the California Community College Training and Education Committee for Energy Efficiency

### **Staff Incentive Programs**

The Facilities and Construction Department is blessed with an enthusiastic, dedicated staff that takes pride in its work and possesses the skills and expertise to fulfill its mission. To recognize the special efforts and accomplishments of individuals within the department, the department instituted the Facilities MVP (most valuable player) Award Program in 2002. Initially, each month at the department's senior staff meeting, supervisors and managers nominated and selected an individual for outstanding service for that month. This individual would then be recognized at a brief all-employee gathering and awarded a certificate and jacket bearing an "MVP Facilities Team" logo. We believe this MVP Award Program has fostered a sense of pride and teamwork throughout the department.



# Program Effectiveness

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## Facilities for the Community

While the construction and maintenance of District facilities chiefly benefit the students and staff of Citrus College, these services also directly benefit the surrounding communities in a number of ways. The college's Adapted Physical Education Center, for example, provides ADA accessible exercise and therapy equipment for use by the general public. Similarly, the college's aquatic center, which includes an Olympic-size pool and therapy pool, is also open to the public. The college's all-weather track is also open to the community and our gymnasium is regularly used for youth basketball leagues and other public functions. The college's non-credit courses offer a variety of educational and recreational classes aimed at providing personal enrichment and lifelong learning opportunities for members of our community. Additionally, the college's Performing Arts Center presents a variety of performances at very reasonable prices which routinely enjoy sell-out attendance by the surrounding communities and school districts.

In short, the condition and availability of Citrus College facilities provides for the enrichment, education and recreation of the citizens that support the college with their tax dollars. This is an outcome which directly reflects upon the effectiveness of the efforts of the Facilities and Construction Department.

## Effects on Student Outcomes

**Indoor Air Quality (IAQ).** There is a growing body of research linking student performance to the quality of the air they breathe in schools. The following excerpts from the article *Do School Facilities Affect Academic Outcomes?* (Mark Schneider, November 2002) focuses on temperature, humidity and ventilation, and the roles they play in affecting academic performance:

Temperature and humidity affect IAQ in many ways, perhaps most significantly because their levels can promote or inhibit the presence of bacteria and mold. For example, a study of Florida classrooms with relative humidity levels greater than seventy-two percent found visible mold growth on the ceilings and complaints of allergy symptoms associated with sick building syndrome (Bates 1996). At the other end of the humidity scale, Leach (1997) reported findings of a 1970 study done in Saskatoon, Saskatchewan, Canada, which found absenteeism was reduced in schools by twenty percent as relative humidity in the facilities was increased from twenty-two to thirty-five percent. Wyon (1991) showed that student performance at mental tasks is affected by changes in temperature, and Fang et al. (1998) found that office workers are most comfortable in the low end of temperature and humidity comfort zones. These findings support the idea that students will perform mental tasks best in rooms kept at moderate humidity levels (forty to seventy percent) and moderate temperatures in the range of sixty-eight to seventy-four degrees Fahrenheit (Harner 1974, Wyon, Andersen, and Lundqvist 1979).

One of the first symptoms of poor ventilation in a building is a buildup of carbon dioxide caused by human respiration. When carbon dioxide levels reach 1000 parts per million (about three times what is normally found in the atmosphere), headaches, drowsiness, and the inability to concentrate ensue. Myhrvold et al. (1996) found that increased carbon dioxide levels in classrooms owing to poor ventilation decreased student performance on concentration tests and increased students' complaints of health problems as compared to classes with lower carbon dioxide levels. The study was conducted at eight different European schools on more than 800 students with results that achieved statistical significance.

Newly installed building HVAC systems serviced by the college's new Central Plant provide for relatively precise control of interior temperatures via the campus' energy management system. The department's Chief Engineer and HVAC technicians program this system to achieve a temperature range of 71 – 74 degrees Fahrenheit in classrooms and offices. Additionally, the district standard for all new multi-zone air-handling units requires carbon dioxide sensors which increase ventilation using outside air when CO<sub>2</sub> levels exceed acceptable levels. In other buildings ventilation systems are designed to provide a minimum of 15 cfm (cubic feet per minute) of fresh air for each occupant – a standard established by the American Society of Heating, Refrigerator and Air-conditioning Engineers (ASHRAE).

**Lighting.** A substantial body of research also indicates that lighting plays a key role in academic success. The following excerpt from Schneider's *Do School Facilities Affect Academic Outcomes?* focuses on the importance of adequate classroom lighting and the benefits of daylighting.

Classroom lighting plays a particularly critical role in student performance (Phillips 1997). Obviously, students cannot study unless lighting is adequate, and there have been many studies reporting optimal lighting levels (see Mayron et al. 1974, Dunn et al. 1985, 866). Jago and Tanner's review (1999) cites results of seventeen studies from the mid-1930s to 1997. The consensus of these studies is that appropriate lighting improves test scores, reduces off-task behavior, and plays a significant role in students' achievement.

Recently there has been renewed interest in increasing natural daylight in school buildings. Until the 1950s, natural light was the predominant means of illuminating most school spaces, but as electric power costs declined, so too did the amount of daylighting used in schools. According to Benya, a lighting designer and consultant, recent changes, including energy-efficient windows and skylights and a renewed recognition of the positive psychological and physiological effects of daylighting, have heightened interest in increasing natural daylight in schools (Benya 2001).

Classroom lighting throughout the campus is designed to provide between 60 and 70 footcandles of lighting at desktop level – deemed comfortable and adequate for classroom tasks. However, lamp improvements and lighting system design is now allowing us to exceed these levels while saving on energy costs. Currently, the department has implemented a lighting pilot program in one classroom to test the effectiveness of a new indirect lighting system. The results have proved so promising that this same lighting system will be installed in four classrooms soon to be remodeled.

Additionally, the college's new library, math building and faculty office building have been designed and constructed utilizing natural daylighting to fill or augment the lighting needs in those buildings. And designs now in progress for other new buildings are incorporating natural daylight as primary sources of light as well.

**Acoustics.** The link between academic performance and classroom acoustics seems an obvious one: the fewer distractions there are in a classroom, the better students will perform. Once again, Mark Schnieder's research makes the case for yet another aspect of school facilities having a direct effect on academic outcomes:

The research linking acoustics to learning is consistent and convincing: good acoustics are fundamental to good academic performance.

In one of their many syntheses of existing work, Earthman and Lemasters (1998) reported three key findings: that higher student achievement is associated with schools that have less external noise, that outside noise causes increased student dissatisfaction with their classrooms, and that excessive noise causes stress in students (1998, 18).

The Facilities and Construction Department at Citrus College approaches the problem of "noise" from both an operational and design perspective. The day-to-day operations of our Maintenance, Grounds, Operations and Construction Sections produce noise – this is simply the reality of conducting these kinds of operations. However, great care is taken to schedule this work so that noise near classrooms is minimized during class hours. Both the Maintenance and Grounds Sections of the department begin work at 6:00 a.m. and schedule their noisiest operations in the central campus for first thing in the morning while the campus is still unoccupied. The majority of custodial operations does not begin until 9:30 p.m. and goes on throughout the night while the campus is unoccupied. Remodeling and construction projects are scheduled, when possible, during break periods and periods with lower enrollment – e.g. the summer and winter inter-sessions – to minimize the impact of noise upon academic programs.

From a design perspective, most buildings on campus utilize a building envelope constructed of materials with high noise-attenuation characteristics – e.g. masonry, double-paned glass and heavily insulated metal-framed walls. Also, all upgraded HVAC systems and HVAC systems for new buildings are designed to produce a minimum of noise and vibration.

## Energy Savings

The effectiveness of the Facilities and Construction Department, in large part, can be measured in terms of the energy savings it helps realize for the District. Some of these energy savings are realized simply through the employment of sound maintenance practices. Keeping equipment lubricated, adjusted and cleaned saves energy, especially in the area of HVAC equipment. For this reason the Maintenance Section employs a comprehensive preventative maintenance program for HVAC equipment, checking, lubricating and adjusting equipment and changing filters on a scheduled basis. The Maintenance Section's HVAC technicians also program and monitor the operation of HVAC equipment – including the central plant – utilizing a computerized energy management system. This system allows for the precise scheduling of HVAC operation campus-wide so that building systems operate only when rooms are occupied.

All buildings on campus underwent a lighting retrofit approximately ten years ago, equipping them with electronic ballasts and high-efficiency T-8 lighting. New buildings are being designed with occupancy sensors for lighting, and currently all exit lights are being replaced with high-efficiency LED lighting. Two old marquees are being replaced with marquees that incorporate LED message boards, and, as mentioned previously in this report, HVAC systems across the campus are being replaced with new energy-efficient systems that will both improve occupancy comfort and save energy. The following table, which lists energy retrofit projects either completed or planned for completion through 2008, shows projected annual energy savings for Citrus College.

**Retrofits /MBCx / New Construction / Emerging Technologies**

| Building Name (s)  | Building # (s)           | Building Usage Description  | Year Built Or Retro | Completion Date | Square Footage                | Measure Description  | Cost        | Peak kW Savings | kW Usage Before | kW Usage After | kWh Annual Savings |
|--|--------------------------|---|---------------------|-----------------|-------------------------------|--|-------------|-----------------|-----------------|----------------|--------------------|
| Central Plant  | 1                        | Chilled & Heating Hot Water Plant   | 01/01/06            | 07/01/07        | 5,000                         | Provide new chillers, cooling towers, boilers, pumps, etc.   | \$3,000,000 | -69.0           | 1,952,454       | 1,476,201      | 476,253            |
| Campus wide  |                          | Classrooms, Administrative offices, Laboratories, Childcare, Gymnasium, Retail, Kitchen/Cafeteria, etc. | 01/01/06            | 12/01/08        | 583,721                       | Replace Exit Signs from average of 25W Incandescent/Fluorescent to 2W LED                            | \$80,000    | 9.0             | 87,600          | 7,008          | 80,59              |
| Technical B, Technical C, Performing Art Center, Liberal Arts                                  | 8, 27, 28, 30            | Classrooms, Auditorium, Performance Theatre   | 01/01/06            | 05/15/06        | 8,500, 16,000, 42,000, 16,700 | HVAC units replacements with VAV conversions combined with Occupancy sensing and controls interface. | \$2,534,705 | -6.1            | 305,385         | 83,050         | 222,335            |
| Education Development, Infant Center, Lecture Halls  | 34, 37                   | Classrooms, Offices, Infant Care Center, Lecture Halls  | 01/01/06            | 04/30/07        | 6,000, 22,000, 11,000         | HVAC units replacements with VAV conversions combined with Occupancy sensing and controls interface. | \$882,500   | 21.9            | 132,730         | 50,553         | 82,177             |
| Physical Science, Video Technology   | 26, 55                   | Classrooms, Offices, Storage and Studio   | 01/01/06            | 04/30/08        | 17,500, 14,000                | HVAC units replacements with VAV conversions combined with Occupancy sensing and controls interface. | \$1,394,626 | 62.7            | 327,379         | 162,869        | 164,510            |
| Campus Center  | 18                       | Cafeteria, Teacher Lounge, Offices, Retail facility   | 01/01/06            | 12/31/08        | 19,000                        | HVAC units replacements with VAV conversions combined with Occupancy sensing and controls interface. | \$557,473   | 2.2             | 67,984          | 13,252         | 54,732             |
| Information Systems, Adapted PE Center, Life Science Educational Dvlpmt Center, Hayden Library | 6, 7, 14, 16, 17, 34, 52 | Offices, Classrooms, Library, Gym, Workshops.   | 01/01/06            | 12/31/08        |                               | Retro Commissioning of seven buildings.  | \$61,500    | 32.4            | 1,335,000       | 1,218,250      | 116,750            |

|   |  |  |              |              |   |  |                         |             |                       |                       |                       |
|---|--|--|--------------|--------------|---|--|-------------------------|-------------|-----------------------|-----------------------|-----------------------|
| Art Center<br>Earth Science   |  |  |              |              |   |  |                         |             |                       |                       |                       |
| Technica<br>I B<br>Technica<br>I C<br>Performi<br>ng Art<br>Center<br>Liberal<br>Arts<br>8<br>Campus<br>18<br>Center<br>2<br>Physical<br>Science<br>27<br>Video<br>28<br>Tech<br>30<br>Educatio<br>n<br>34<br>Develop<br>ment<br>Center<br>55 |  | Classrooms<br>, Offices,<br>Storages,<br>Cafeteria,<br>Teacher<br>Lounge | 01/0<br>1/06 | 12/31<br>/08 | 24,0<br>00<br>15,5<br>00<br>16,0<br>00<br>22,0<br>00<br>13,0<br>00<br>9,50<br>0<br>10,0<br>00<br>25,5<br>00 | Install<br>Occupancy<br>Sensors to<br>existing<br>lightings of<br>eight<br>buildings | \$141,60<br>0           | 0.0         | 676,27<br>0           | 338,13<br>5           | 338,135               |
| <b>Project<br/>Totals</b>   |  |  |              |              |   |  | <b>\$8,652,<br/>404</b> | <b>53.1</b> | <b>4,884,<br/>802</b> | <b>3,349,<br/>318</b> | <b>1,535,4<br/>84</b> |