In 2002, FMTS began a continual improvement program to better ourselves and the services we provide for the campus. This year we begin the process of documenting our goals, and assessing our efforts.

This report consists of five sections: our Mission Statement, FMTS Goals, Department Goals, Campus Projects, and Assessment. FMTS Goals are broad goals relevant to all FMTS departments; Department Goals are relevant to specific departments. Goals are set at the beginning of every fiscal year, and reviewed halfway through the year. Here, we define our current goals and provide an update on their status. Assessment looks at the current data we have accumulated, and determine possible goals for next year that will allow us to build upon our current successes.

The FMTS Mission Statement:

This process began when, in January 2003, the supervisors developed the following Mission Statement:

The mission of FMTS is to provide the WWC community with facilities and grounds maintenance and design services. We embrace sustainability and continual improvement. We are committed to the Triad philosophy. We will fulfill our mission through:

1. **Work Excellence:** We will satisfy the needs of the WWC community promptly, safely, and in a clean and organized manner. We will communicate effectively with each other and our community.

2. **Development and Care:** We will develop superior knowledge of our equipment and strive for continual improvement. We will enhance the WWC community through mentoring and training. Our highest priority will be to meet the needs of the students, faculty, staff, and the college community.

3. **Sustainability:** We will lead the campus and community by example through better planning toward a more sustainable future with performance and efficiency in mind.

4. **Maintenance Excellence:** We will combine preventive, predictive, and preemptive methods to ensure the most efficient and trouble-free systems operations at the college.

5. **Triad:** We will promote and support the Triad philosophy of meaningful work, service, and learning. It is our commitment to partner with all aspects of the college.
FMTS Goals:

The following goals are over-arching goals for all FMTS departments, and are the specific charge of the FMTS office to execute:

Work Excellence

Meeting the needs of the campus efficiently and effectively requires us to understand our strengths and weaknesses in broad stroke categories. These categories include:

1) a well organized **structure** where we clearly understand our roles and responsibilities within the overall campus mission
2) a positive **environment** that promotes communications, safety, work excellence, organization and cleanliness, while having fun in the process.
3) the **capabilities** that ensure we can meet the campus' needs. Without the training or know-how to accomplish our work and train our students, trained students, sufficient supervision, equipment, and vehicles, we cannot meet the campus' needs.
4) the development of **leadership** skills
5) developing **processes** that help us to improve our operations. Examples include budgeting, developing standard operating guidelines, goal setting, planning, work order evaluation, and construction/project management.

To this end, we have set the following goals for this year:

1) **Structure**: We define roles and responsibilities for every department and crew, and define supervisor's job descriptions. **Purpose of Goal**: Clearly defined roles and responsibilities ensure we understand the relationships we have between each other, and with whom to address challenges and tasks. This also ensures the campus understands these relationships. **Status**: 50%. **Next Steps**: We complete these by April 1, 2006.

2) **Environment**: We improve communications with Administrative Council. Several key areas of communication are addressed: establishing specific, realistic, time constrained, and mutually agreed upon campus wide goals, improving crew safety as crew numbers are increasing, improved communications, clear goals, time to execute these goals, emphasis on safety, increasing number of students effective training hour of week safety/training. **Status**: Twice a month meetings have been established with Student Affairs, and Work Program Office. **Next Steps**: Regular Meetings with the other Ad Council members will be established by April 2006.

3) **Capabilities**:
   1. **Computers**: We determine the computer technology needs, and provide appropriate computers as needed to our supervisors and students. **Purpose of Goal**: Computers are the lifeline of our work order system, scheduling of meetings, supervisor planning, communications with supervisors, CAD/GIS systems, project planning, budgeting and creation of procedures. Several new assistant supervisors and Landscaping have no computers. At least three quarters of the others have computers that cannot run the software needed for the success of our operations. At least 50% of the computers have multiple failures, lockups, or take several minutes to perform tasks that should occur instantaneously. We need to safely store our documents on a server, and ensure they are backed up. Many of our students perform research on sustainability issues, new products and procedures. We need reliable access to this server. In addition, with the growing number of students on our office crews, development of student department managers, we have an insufficient number of computers. **Status**: A matrix was created evaluating the need for additional computers, computer upgrades, and software needs. This December, with the assistance of the
Computer Center, upgrades occurred that allows us to meet about 80% of our hardware and software needs. All supervisors have some form of computer and inter and intranet access. Computer software security issues, including virus and spyware protection were updated. Procedures were developed on how to successfully load work order software on our computers. An MIS manual has been created on how to operate our network. Christopher Fielden, our CAD/GIS supervisor, with assistance from Joel Campbell, has begun training on networking issues along with our student, Kerris Layne. Computer stations were added, and an underutilized room renovated to handle our additional student office assistants. **Next Steps:** Ensure all computers are up to date on spyware and virus protection by March 1, 2006. Re-evaluate computer needs and update by August 2006. Begin computer use training by June 2006. Create a list of computer/software related goals by April 2006.

2. **Vehicles:** We assess our vehicle needs, and develop a five year plan to meet these needs. We do so with a subgoal of reducing overall vehicle emissions and focusing on alternative fuel vehicles. **Reason for Goal:** With expanding crew sizes, sufficient vehicles are needed to ensure our students and supervisors have appropriate transportation for themselves and their tools and equipment. Without the vehicles, students cannot get to their job. Many students can only work 1.5 hour blocks. They must be able to get to their jobsites quickly. Having the right vehicle is also important. Certain crews require parts, supplies, tools and equipment be ready available to avoid trips back to the shop. Certain vehicles have more frequent repairs, impeding the crews ability to get their work done. **Status:** We have assessed over ½ the departments for their vehicles needs. **Next Steps:** We complete a plan by April 2006.

3. **Equipment** We determine and prioritize our equipment needs. **Reason for Goal:** The right equipment allows us to perform our work more cost effectively. **Status:** we have assessed over ½ the departments for their vehicles needs. **Next Steps:** We complete our plan by April 1, 2006.

4) **Leadership:** No formal goals have been developed.

5) **Processes:**

1. We continue the development of our Safety Program. **Reason for Goal:** The safety of our students is of utmost importance. With increased crew sizes, this becomes more difficult. So, we must find creative ways to effectively develop this program **Status:** the FMTS Safety Committee is in its second year of existence. The focus this year has been on setting specific, measurable and attainable goals. See Goals under Safety Committee for specific goals and accomplishments.

2. We develop an office management program. **Reason for Goal:** In addition to training their students, coordinating between other trades and the campus, lining up contractors for work, and remaining involved in the campus community, supervisors must purchase materials, develop procedures, and plan and complete work orders. With increasing student crew sizes, this becomes more difficult for managers to successfully perform their work. Creating Office Managers will allow them to manage this work load more effectively. Providing these managers standardized training from a central source will free the supervisors to train their other students in the hard skills needed to perform their work. This will also ensure all departments follow the same purchasing and work order planning procedures. **Status:** A student completed a program to provide Microsoft Office, purchase order, and work order planning training. The training documents need to be organized, and this training needs to occur a minimum of once a semester. **Next Steps:** We create a master list of skills every student office manager should understand. We create a twice a month training luncheon specifically for office managers so they can start solving problems together, and become a recognizable group by April 2006.
3. We develop a building managers program. **Reason for Goal:** The roles and responsibilities for building managers are not clear, and not clearly communicated. Building Managers are unaware of the support offered by FMTS. Building Managers often feel inadequately supported. This program will help minimize these issues. **Status:** This goal has been on our list for three years. No progress has been made to date. **Next Steps:** We determine the needs of building managers, and create a list of expectations of them, and from them by September 30th 2006.

4. We develop a Customer Service program. **Reason for Goal:** Building Managers, other supervisors, students, faculty and staff are at times unaware of the status of work, projects, and often there is insufficient communications occurring between FMTS and the Campus. An effective program will ensure our customers, internal and external, are more fully aware of our efforts. **Status:** Minimum progress has been made. **Next Steps:** We create a survey, and review the results by December 2006. We determine our expectations of ourselves as internal customers by August 2006.

5. We develop a yearly report for the Warren Wilson Fact Book. **Reason for Goal:** The campus can assist us in our efforts if they understand our goals. If goals are written, they are more likely to be accomplished. Also, the campus understands our priorities, and campus goals are clearly defined. And with adequate communication of our goals through the Fact Book, we can ensure we are meeting the expectations of the campus. **Status:** This report has been completed for this fiscal year.

**Care of Selves and Students:**

For our supervisors, our goal is simple: Take at least one training class, or attend one seminar for professional development to improve our knowledge, and help better educate our students. **Reason for Goal:** Organizations that succeed are those that become learning institutions through constant training of their people. **Status:** Training has occurred in Environmental Compliance, Floor care, Locksmithing, OSHA, Communication Styles, Access Training, TMA work order system, HVAC pumping systems, Microsoft Office.

For our students: Collaborate with the college to establish a specific dedicated time that at least once every two weeks where dedicated training can occur. **Status:** Dialogue with the campus is underway. **Next Steps:** Continue dialog towards creating a dedicated time for student training. Supervisors are also being encouraged to find creative means of training students, and developing a written program that rewards students for meeting and surpassing training goals.

**Maintenance Excellence:**

1) We develop a preventive maintenance program for Rental Housing. **Reason for Goal:** Preventive Maintenance programs ultimately save time and money by establishing planned maintenance, and eliminate small maintenance issues before they become major repair issues. **Status:** A standard procedures has been developed, and four houses have been inspected. Gutter cleaning and chimney sweep maintenance is already in place, but a quality control program is needed to ensure this program functions successfully. **Next Steps:** By May 15, 2006 we inspect half of the rental houses, establish repair and cost priorities, develop preventive maintenance procedures, and educate renters on FMTS, and, their responsibilities.

2) We develop a preventive maintenance program for Residence Halls **Reason for Goal:** See above **Status:** During the summer, informal sweeps are performed in Carpentry, Electric,
Locksmith, Plumbing, and Painting. Formal preventive maintenance programs for filters has been established in the HVAC department. **Next Steps:** These preventive maintenance sweeps are formalized (documented and put into the work order system as recurring work orders) by May 2006.

3) We develop a preventive maintenance program for Academic Buildings. **Reason for Goal:** See above. **Status:** This program was begun informally (ie, they are not automatically generated in the work order system as preventive maintenance work orders) by the electric and painting crew this past December. Formal preventive maintenance programs for air filter changes have been established in the HVAC department. **Next Steps:** We create a list of preventive maintenance procedures we wish to formally introduce, and have these in place by August 2006. Individual PM programs that will start are listed within each department.

**Sustainability**

Construction: We develop and implement sustainable construction standards for all our projects. We will use USGBC LEED as our standard. **Reason for Goal:** Well designed construction minimizes resource use, impact on the land on which it is developed, minimizes energy consumption, and generally improves occupant productivity by creating healthy living environments. **Status:** The Orr Center has been constructed per LEED standards. We are currently awaiting their review and rating level. We were the general contractor on this building. **Next Steps:** A construction sustainable purchasing manual will be completed by August 2006. We complete Orr Center Building Commissioning by August 2006. We assess whether we attained our sustainability goals for Orr Center by December 2006.

We assist the campus move towards Kyoto Compliance. We do this by developing a point source emissions (building electrical and gas consumption), and mobile emissions (moving equipment that pollute such as vehicles and lawn mowers) program. **Reason for Goal:** Making our campus climate neutral will minimize our impact on the environment, and show others how they, too can accomplish this goal. **Status:** Next Steps: Point Source Emissions: we develop gas and electric consumption profiles for all buildings over the past three years by May 2006. Mobile Emissions: we determine the highest fuel users with the lowest efficiency by May 2006. We develop a Landscaping Low emissions program by December 2006.

**Environmental Compliance:**

We develop a plan for managing environmental compliance. **Reason for Goal:** Environmental compliance, such as for hazardous waste, is important for the health of our campus, as well as our environment. **Status:** One training class has been attended. **Next Steps:** Attend three classes on developing and sustaining a program

**Triad Integration:**

No formal goals have been set at this time. All departments have been encouraged to perform service work with their students.
Safety: We develop an extensive safety program with FMTS by August 2007. Reason for Goal: Over 150+ students work within FMTS departments, and most departments face a myriad of safety issues. We are striving to develop an outstanding program to keep our students, and, ourselves, safe. In the fall of 2004, an in-house safety committee was formed to meet this goal. Status: By May 2006 we complete the FMTS Master safety manual. Next Steps: We develop individual department safety manuals, and obtain an external audit to evaluate our program by August 2006. We develop a safety incident report to track our safety record by December 2006.

Departments:
A complete set of goals for every department is not available for this year. However, notable goals and achievements are noted herein:

Automotive:
We are now operating with B50 biodiesel fuel. This means that 50% of the diesel is biodiesel based. Most other institutions/organizations are running a B20 program. A Vehicle Maintenance program, where students will be assigned specific vehicles to monitor and maintain, will be established by August 2006.

Building Services:
Sustainable jumbo toilet paper dispensers are installed in all buildings by May 2006 (95% complete). Sustainable foam soap dispensers are installed by August 2007. The number of cleaning products used have been reduced by over 35%, with a goal by August 2006 of 50%. Additional paper towel dispensers in all buildings with high traffic now have two dispensers per bathroom installed.

Campus Support:
The Doug Orr Center was completed August 2005. The offices for Financial Aid were completed in the Fall of 2005, and Safety renovations were made to the WPO Boiler/Recycling room. Laursen is currently undergoing a full renovation.

CAD/GIS Services:
Floor plans of all campus buildings have been completed as of May 2006. This includes square footages of every room. These have been provided to all FMTS supervisors, building managers, and are available to all on our website. Floor plans of 25% of the rental houses have been completed. 100% of rental house floorplans are completed by August 2007. Roof plans and square footages are completed by August 2007. Completed classroom furniture plans and inventory spreadsheet for all classrooms on campus October 2005. Created GIS map of campus signs September 2005. Renovated FMTS resource library. A Website for FMTS, with up to date construction schedules was completed March 2006.
All Resource Library (building) files and drawings are organized by December 2006. 20 year road maintenance program is completed by August 2006. Utility maps will be updated and completed by August 2007.

Carpentry:
Reorganized lumber yard. Lumberyard to be completely renovated by August 2007. Recycling sheds were completed at Holden/Kittredge, Church Fellowship Hall, and FMTS. Ransom House, Morse/Witherspoon/Bannerman, and Library recycling sheds are completed by August 2007. Permanent fall protection on all roofs are installed by August 2006. Work orders are reduced to a manageable level by August 2006. Gutter, and general preventive maintenance work is established by
**Electrical:**
The Farm granary was required with controls and explosion proof equipment. The new offices for Financial Aide were wired in-house. Laursen electrical wiring is being jointly installed by a contractor and our students with expected completion in May 2006. Moved phonathon telephone to new permanent locations in the Orr Center. Electrical wiring deficiencies in the Schafer dorms were corrected in-house.

**New Goals:**
The storage areas above FMTS are organized by August 2006. Emergency batteries, emergency light fixtures, smoke detectors, and fire alarm system preventive maintenance work is established by December 2006. Preventive Maintenance sweeps for academic buildings are established by August 2006.

**FMCS:**
Accurate work order reports for supervisor meetings are established by May 2006. Aging work order reports, and highest equipment failure reports are established by May 2006. Pareto reports and mean-time-to-repair reports are established by August 2006. Office file structure is completed by May 2006.

**HVAC:**
We develop comprehensive boiler, pump, belts and sheaves preventive maintenance programs by December 2006. We analyze Pareto charts to determine most significant areas needed for improvement and develop a first year training program for students by August 2006.

**Landscaping Services:**
The Ecodorm landscaping permaculture design continues to evolve each year. In addition, the Orr Center landscaping was completed. Laursen is landscaped by October 2006.

**Locksmith Services:**
The installation of door closers on all residence hall room doors is completed by August 2006. All dorms are complete except for two floors in Dorland. By August 2006 all peepholes in dorms are securely attached. By August 2007, housekeeping, mechanical, electrical, fire panels and FMTS are rekeyed to campus standards. By that time, residence hall key control is also turned over to housing.

**Office Management Group:**
The Office Management Group consists of Purchasing, FMCS, FMTS, and Cad/GIS Services, along with the volunteers working in these offices. The middle work room, hallway, conference room and copier room have been reorganized to allow us to operate more efficiently. An office security program has been instituted, and an office cleaning protocol established.

**Painting Services:**
By August 2006, the 20 year paint schedule for exterior painting projects is updated, a preventive maintenance program for exterior signage and parking painting is developed, and all "loose end" projects are completed. A painting preventive maintenance program is established for academic buildings by December 2006.

**Plumbing Services:**
Water efficient showerheads have been installed in all residence halls along with an education program
on how to use the showerheads. An informal preventive maintenance sweep program (all sinks, toilets and urinals are checked for leaks/needed repairs on at least a quarterly basis) has been developed. A formalized preventive maintenance program is executed by August 2006. A formalized preventive maintenance program for exterior storm drainage is developed by May 2006. Pareto charts are analyzed to determine where we need to focus our preventive maintenance repairs by December 2006.

**Purchasing**
A credit card program for Home Depot, and better budget reports and monitoring records for FMTS expenditures has been completed. We further refine the budget reports by August 2006. We develop an online purchasing system for the campus by May 2007.

**Recycling and Waste Management Services:**
In 2005, a surplus program was instituted. The pole barn space was reorganized and the space is now being managed. Composting has been re-initiated with a new composting system. An operational manual and training program has been initiated. A composting and management plan has been developed for a future, comprehensive compost site.

The Greening Crew is a joint venture between Recycling and Waste Management and the Environmental Leadership. Energy production and use for the photovoltaic shed and golf carts was initiated, as well as a utility monitoring program for all campus buildings, and monthly usage graphs. In addition, low angle cut-off light fixtures for all Progress Security Lighting will be installed by June 2006.

In addition to individual department goals, major repairs and renovations occur every year. These are divided into ADA (American with Disabilities Act), IAQ (Indoor Air Quality) and renovation projects.

**IAQ next year:**
This past year saw the completion of basement waterproofing projects at ANTC and Sage. Landscaping drainage around Stephensen was diverted to prevent water intrusion in these spaces. Additional storm water drainage was installed around Sunderland and Ballfield A. By August 2006, we address all remaining IAQ issues in Sunderland (mold, stormwater and radon). We inventory all asbestos abatement projects for future reference. We readdress stormwater issues at the Ballfields, ANTC and Sutton.

**ADA Compliance:**
We address ADA issues between Jensen and Sunderland by August 2007.

**Projects:**
The sustainably designed Orr Center was completed in August 2005. A major renovation is now occurring at Laursen. Paving was completed behind the pavilion. A major waterleak repair was made at St. Clare. We repair paving at Randolph, Sunderland, and readdress storm water drainage at ANTC/Sutton by August 2007.

A tremendous workload occurs these next two years. All timelines are estimates:

The Fortune Property Residence Halls are completed by August 2006 (Architect is Performa, the General contractor is Weaver-Cooke)

A Utility Infrastructure project is completed by April 2006. This includes a sewer line running through
the parking lot of Kittredge, behind Holden Art Center, the Infirmary, Pavillion, and ending in the parking lot of FMTS. A new water line is run from the Chapel down to St. Clare to replace the line that failed last fall, and also tied into the new Fortune Property Residence Halls.

Sunderland and Jensen
A pedestrian corridor from the main campus, through Holden, and to the Fortune Property Residence Halls, and the repaving of Kittredge Parking Lot will occur. The parking at Kittredge will be expanded. This should be completed by December 2006.

Jensen Renovations: Expected completion August 2008. these renovations are intended to improve our academic classrooms. A new elevator for ADA accessibility and a geothermal well field are installed by August 2006. Interior renovations including a new heating and air conditioning system, and instructional audiovisual technology will be installed. Additional renovations may include new windows, lighting and finishes.

Carsonf and Spidel: Renovations are intended to improve our academic classrooms. Both buildings will be evaluated for needed repairs, and a judgement made on needed renovations. Instructional audiovisual technology will be installed.

Dodge: will be cleaned up and painted for the new occupants by August 2006.
Sunderland: The basement of Sunderland will be cleaned and remodeld for the new occupants by December 2006.
FMTS Green Roof: A new roof is installed by August 2007
Green Walkabout signage and garden cabin improvements are completed by May 2007

**Future Potential Projects:**
Other projects that need consideration in the future:
Sage exterior renovations
Stephensen exterior renovations
Compost operation
Redo FMTS parking
Sage bathroom renovations

**Indicators:**
The indicators we develop allow us to determine if we are meeting the needs of the campus, and, if not, why. These indicators will continue being updated every year to better reflect our efforts:

Student Staffing
Work order reports
Aging reports, over 60 days all depts
Pareto charts

Campus Sustainability Reports:
Utility reports
Recycling reports by waste types (future)
Campus Emissions
Staffing, Staff:
In 2004-2005, an HVAC Assistant Supervisor was hired to bring HVAC work orders under control. An assistant supervisor to Building Services was also hired to oversee cleaning of most academic buildings. Finally, another assistant Supervisor to Building Services was hired to oversee cleaning of all residence halls in 2005-2006.

Staffing, Volunteers:
FMTS has 1 in Landscaping, 2 part timers in FMCS, 1 volunteer in the electric crew, and 1 in purchasing.

Staffing, Students:
Student staffing has steadily increased over the past three years. See below. The average number of students per crew has increased from 143 in Fiscal Year 2002-2003 to 212 in Fiscal Year 2005-2006. See below:

![Total Students in FMTS](chart.png)
The Graph below reflects the FMTS crews in size by department. Building Services has increased substantially. This is a result of the expansion of Building Services to include Academic and Residence Hall Cleaning Services. We are rapidly approaching the point where additional supervision will be required if student numbers continue to increase.
The graph below reflects student staffing by department. The first bar reflects the department crew size for Spring 2006. The remaining bars reflect the student staffing numbers by the student's academic class standing. Note that in general, the crews are predominantly first and second year students. This is significant for these reasons: younger crews have fewer life and technical skills. A tremendous amount of training, including safety, technical and soft skills is required. Upper class students can be assigned increasingly complex projects, and can operate more independently. This also indicates the amount of retraining that must occur every year to continue providing increasing levels of service to the campus.
Work Order Reports:

**Review of opened versus completed work orders: Summary:** A tremendous increase in completion of work orders has occurred the past few years. The request for work orders has increased at an even higher rate. In FY 2004-2005, the average number of work orders opened/received was 450 per month. Details: The above graph reflects open and closed work orders dating back to fiscal year 1997-1998. Data for Fiscal year 2002-2003 is incomplete, and therefore is to be ignored. The new work order was implemented during this time, and inadequate records were kept during this period. Fiscal year 2003-2004 reflects a marked increase in work orders opened and completed. This can partly be attributed to ensuring work orders were entered for all relevant work orders. However, the primary jump is due to improvements in work efficiency. The increased work completion has probably led to increased expectation that work would actually get accomplished. Unfortunately, Fiscal Year 2004-2005 reflects the inability to increase completion of work orders above 4000. Note that FY 2005-2006 reflects only 6 months of data, and could possibly set a new record for work order requests and completed. One primary reason for decreased work order completion was the involvement of almost every crew on the Orr Center. This had a significant impact on work order completion during the summer (in some cases, none were completed), as well as the supervisor(s) being able to prepare for the students, and, the work, during the fall. **Bottom line:** Work order requests are starting to far outpace completed work orders. Incremental gains in work efficiency can still be gained to reduce this deficit. We must shift this year from reactive work orders to preventive maintenance/pro-active work orders. However, if we are to meet the work order demands of the campus, we must find alternative sources of labor, or lower expectations. At the same time, we must continue improving the training of our students. This, too, will increase our ability to complete more work.
Work Orders by Department: Below are work orders by department by fiscal year. The departments receiving the highest number of work orders were, for FY 2003-2004: Carpentry, Electrical, Locksmith, HVAC, Plumbing, Autoshop, and Building Services.

The departments receiving the highest number of work orders were, for FY 2004-2005: Carpentry, Electrical, Plumbing, Locksmith, Autoshop, HVAC, and Building Services.

The average number of work orders per month for carpentry is approximately 67 a month, being accomplished by an average crew of 12 students. In FY 2003-2004, five departments exceeded 50 work orders in one year, in FY 2004-2005, only two departments exceeded this threshold.
Work Orders Opened Summary:

**Summary:** Work Orders opened can be an indication of work order traffic over the years. They may indicate that repairs are exceeding our ability to "prevent" them, a decrease in the number of repairs because better preventive maintenance is being performed, a higher or lower customer expectations, or our customers or ourselves better understanding the need for quality work. **Details:** FY 2005-2006 reflects only 6 months of work orders. While the spring semester generally results in fewer work orders. This year may be an indicator of a record number of work order requests. The jump starting in FY 2003-2004 probably reflects an increased expectation that work order requests would actually be completed. **Bottom Line:** Without additional staffing, or a reduction in large projects, we simply will not be capable of keeping up with the existing work order flow.
The Graph below shows, over a two year period, the number of completed work orders by department. In general, work order completion decreased this past year.
Aging Work Orders: Summary: Aging work orders are an indication of:
   1) work not being completed in a timely manner, or
   2) work orders not being closed out when they are completed, or
   3) work orders not being properly categorized (some work orders are put "on hold", or, "indefinite". If not, they show up on the active work order report)

Details: 243 work orders are older than 6 months. Three departments account for the majority of aging work orders. Bottom line: We will focus on reducing aging work orders in the top 7 departments, and ascertain why these are old. Our goal will be to reduce these by ½. Ultimately, for all requests except major renovations and improvements, we want to have no work orders older than 3 months (with the exception of work orders that have been put on "hold" (ie, they have not been rejected, but no priority at all has been established).
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months. The high number of work orders in fy 2004-2005 in appliance and in furniture repairs probably occurred due to work orders we created. The number repairs being received on these items were high. We entered pre-emptive work orders to eliminate these repair work orders.
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months.

What appears to be two categories that are the same (telephone line/jack) are actually two types of work orders.

An aggressive preventive maintenance program was established for exit and emergency lights. It appears this program has dramatically decreased these types of work orders. This included installing Lithium batteries, which last 6 times longer than regular batteries were installed in all battery operated detectors. These are being replaced on a scheduled basis.

Light repairs, bulb replacement, and telephone line repairs will be addressed this next year.
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months. There appears to be a significant

For the top four types of work orders, the numbers appear to be decreasing. Preventive maintenance sweeps were implemented last year, and appear to be decreasing the number of work orders.

Drain repairs, and sink fixture repairs now need to be addressed.
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months.

Heating system repairs seem to be falling.

General miscellaneous is up. This appears to be a misuse of the category. This should always be minimal.

Boiler repair/replacements are way down. For the past two years we have focused on boilers and heating systems. It appears this focus may be reducing work orders.

Dehumidifiers tend to signify indoor air quality issues or inadequate cooling. Further investigation is needed.

Pipe repairs reflects our efforts to insulate pipes to prevent heat loss, and in other cases, to stop pipe sweating (and therefore, IAQ issues).
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months. Lock repairs, and new key issues may be decreasing. We need to determine what positive (?) events are causing these decreases. Door frame issues appear to be rising, as well as the number of rekeys. We will continue to address the top three work request types and reduce these numbers.

General miscellaneous work orders should always be a minimum number. The increase appears to indicate the wrong task code being entered for some work orders.
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months.

Preventive Maintenance work orders appear to exceed repairs. In general, about 80% of your work orders should be preventive maintenance. In this case, we need to confirm the PM work orders were not just generated, but executed. The increase in repair work orders possibly gives an indication of Pms being generated, but not executed. Tire repairs appear to be low. It appears wos are not generated for each instance of tire repairs.
The reviewer is reminded that fy 2005-2006 only reflects 6 months of data. In general, work orders requested the last 6 months are less than the first 6 months.

In fy 2004-2005, work orders were entered for setup and supply requests. In both cases, the number of requests appear to be skyrocketing. The supply requests can be reduced by pre-empting supply requests. This can be (and is) being accomplished by building services keeping inventory of all supply closets, and automatically restocking supplies before requests are sent in.

Setups are another matter. If they continue to increase, the current crew will not be capable of fulfilling these requests.
Sustainability Reports: Utility Consumption:

Herein are graphs showing utility consumption from September 2003 to present. This data is being collected, the graphs generated, and the results analyzed by the Campus Greening Crew.

![Yearly Electricity Consumption Graph](image)

- **Yearly Electricity Consumption**
- **X-axis:** Sep. '03-Aug. '04, Sep. '04-Aug. '05, Sep. '05-Jan. '06
- **Y-axis:** Electricity (kWh)
- **Legend:**
  - Sep. '03-Aug. '04
  - Sep. '04-Aug. '05
  - Sep. '05-Jan. '06
Electricity Consumption and Cost by Building Type for December 2004-2005

- General Campus: 3587401 kWh, $247,764
- Residence Halls: 1128642 kWh, $79,028
Yearly Gas Consumption and Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Gas (therms)</th>
<th>Cost ($)</th>
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</thead>
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<td>242234</td>
<td>81966.2</td>
</tr>
<tr>
<td>2005</td>
<td>258757</td>
<td>95776.47</td>
</tr>
</tbody>
</table>
Gas Consumption and Cost by Building Type for January 2005-2006

- General Campus: 195,505 therms, $54,262
- Residence Halls: 88,384 therms, $46,000
- Residential: 10,936 therms, $12,118
Water consumption is showing a marked decrease over the past three years. We feel the reduction in use can be attributed to the following: High efficiency washers (Maytag Neptune Series) have been installed in all new dorms (Ecodorm, and Schafer A, B & C). Plumbing preventive maintenance sweeps, which eliminate toilet tank and flush valve leaks are occurring on a continual basis. Low flow shower heads have been installed in all residence hall showers.