

2006 Showcase in Excellence Awards Recipient

Maricopa County Risk Management, Safety Division – “Roadbuilder Equipment Training Program”



Employee completes skills assessment test for backhoe training.

Company Information:

Highest Ranking Official:

Mr. Peter Crowley, Risk Manager

Contact Person:

Mr. Bill Warren, Assistant Risk
Manager & Safety Manager
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Type of work: Maricopa County Risk Management provides loss prevention and control programs and direction, insurance, environmental and claims management services to Maricopa County departments, districts and Trust members to reduce and eliminate losses.

Risk Management's Safety Division provides loss control programs, safety management systems, and equipment training services to all County departments.

Workforce: 23 employees

Testimonial of Value of Arizona State Quality Awards Program

Our organization used the feed back from our prior, unsuccessful application as a guide to sharpen the focus of our process to better reflect the positive impact this process had on our overall operations and customers. This sharpened focus allowed our staff to better direct the process to meet our customers' needs. And the ultimate receipt of this award truly increased the morale within the department, and stressed to the organization the need for any process to be customer driven.

We believe that any organization would benefit from applying for this award. It does not matter whether or not such application is successful. The value is in identifying the process and determining its impact on the organization's customers.

Peter J. Crowley, Maricopa County Risk Manager

Highlights of Organizational Process:

Quality and Performance Results

- Student testing before each class section began, and following completion of the section demonstrated significant improvement in the students' ability. For example, the students pretest score, prior to the section on "Introduction to the Trade" averaged 66 percent comprehension, while their post test score upon completion of this section averaged 84 percent.
- Improvement in skill attainment and operator capability of those working through the 3 year college certificate program have been identified by field supervisors, who now spend less time directing ROADBUILDER students on the job.
- Individual student grades have improved along with operator competencies as evaluated in hands-on testing on specific construction and maintenance equipment and vehicles.
- The County partners with Gateway Community College ("GWCC") which accredits the program with 30 college credit hours and a Certificate in Equipment Operation. These credits can be used towards an Associates Degree program.

- Current trends and key measurement elements of the equipment training process indicate that the majority of trainees have maintained a 3 to 3.5 grade point average (GPA) in the classroom testing of subjects by the college.
- A review of maintenance grading in the County's southwest maintenance operation showed that over a two year period, ROADBUILDER students improved job completion to within journeyman standards. A specific maintenance area was reviewed with a journeyman operator completing a maintenance grading project in 12.25 hours. When same area was graded by student operator and job completion took 16 hours during first year ROADBUILDER training. The time of completion was improved to 13.5 hours of completion by student after the 2nd year of program training.
- To date there have been 42 ROADBUILDER classes completed, ranging from construction math, OSHA Safety requirements, and soils stabilization, with students acquiring 282 college credit hours. The 282 credits are valued at more than \$25,510.00 if received from Gateway Community College.

Processes

- The process is called ROADBUILDER, a program of equipment training that consists of systematic instruction, experience and theoretical related training in the practical aspects of work in the Commercial Driver License (CDL) and Heavy Equipment Operator Trade. Partnership with GWCC as an accredited certificate program ensures technical competencies of the program.
- To be approved by the ROADBUILDER Committee for this program, the employee must complete the GWCC entrance application and take and pass the college ASSET examination. If the employee fails the college entrance exam, remedial training is made available to assist skills, such as math and reading, as required.
- The process was designed using US Department of Labor apprenticeship models for training equipment operators. A set of competencies for each equipment type were developed cooperatively with departmental management and safety to address needed skills and establish task operations needed to complete assignments.
- The competency based training process specifically identified 4 to 7 operator tasks needed in order to complete the training model on each piece of equipment. This was a significant shift in training applications that improved overall understanding of construction and maintenance applications.
- GWCC is responsible for management of the testing, tracking grades and providing employees with counseling services offered by GWCC.
- A 3-year training curriculum was established to give trainees time to complete basic classroom subjects and on the job training sections to meet the necessary elements of education and expertise for the core and elective portions of this training program and to obtain the college credit hours.
- The ROADBUILDER Committee review, with oversight by GWCC and the Safety Division, keeps the program on track and continues to improve class and field training processes.
- To ensure that cost control, productivity and training efficiencies were met in the process design, the Safety Division contracted Hertz Equipment Rental Company to ensure equipment was available for scheduled training.
- The process provides customers with operators that are equipped with the necessary skills to safely and efficiently operate, as qualified artisans, CDL/Heavy Equipment. It also assures that Maricopa County will have a sufficient pool of professional Equipment Operators. Through the ROADBUILDER training program we can continue to maintain operator proficiency and ensure continued future vitality of internal directed projects.