

Akron Engineering Bureau

2003 Annual Report



City of Akron Department of Public Service

Donald L. Plusquellic

Mayor

Gerald Holland

Service Director

David J. Celik

City Engineer

Vision

City Engineer

Design Division

Environmental Division

Construction Division

Administrative Services

Revenue/Expenditures

To: Customers

From: David J. Celik, P.E.
City Engineer



Re: **Akron Engineering Bureau, 2003**

Enclosed for your review and consideration is the 2003 Akron Engineering Bureau Annual Report.

2003 was highlighted by significant activity in design and construction of several major projects, including the High-Main Parking Deck to serve the new Main Library and commercial development in the downtown historic district, Mud Run Golf Course, Lock 3 and demolition of the Broadway Street Viaduct and construction of the new roadway. In total, we bid \$30.9 million in construction contracts and paid out \$40.9 million in construction contract billings.

We achieved significant progress on our goals. Most notably, in workplace flexibility and cross-training of our employees. In addition, we were able to create five new Engineering Technician III positions which provided for promotions for our employees.

Our participation in the World Class Organization (WCO) initiative continued last year. The primary activities included formation of the E3 Core Design Team. The Engineering Bureau is also represented on the Leading Change Team.

The Engineering Bureau is prepared to meet the new challenges in 2004.



AEB VISION



Akron Engineering Bureau (AEB) Vision 2002

Our vision is to provide professional engineering services that meet the infrastructure needs of our customers by:

Planning projects that meet the goals of the City.

Designing projects in a cost effective manner.

Constructing projects in compliance with the contract documents.

To reach this vision means:

Utilizing the experience, education and training of our employees to create a more flexible work force.

Empowering our employees to manage projects more independently.

Use of innovative plan development, design and construction techniques to minimize project costs.

Maintaining the highest level of ethics and professionalism.

Long Term Vision Affirmation

We will affirm and re-enforce our vision by operating the AEB with the following philosophy:

Reduce the need for supervision by creating additional Engineering Technician III and Civil Engineer III promotional opportunities, and filling those positions with capable and motivated employees who can independently coordinate all aspects of a project.

Assign employees based on:

- The overall needs of the AEB.
- The experience level necessary to administer the specific project.
- The opportunity to diversify the experience of the workforce.
- The expectation of minimizing project costs.

Rotate employees between the Design/Environmental Division and the Construction Division so that all employees become proficient in both project design and construction administration.

Maintain the proper balance between in-house design and consultant design.

Determine and monitor overhead rates including project development and programming costs in order to fully understand the cost-effectiveness of the AEB.

Administrative Services

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Construction Division

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City Engineer

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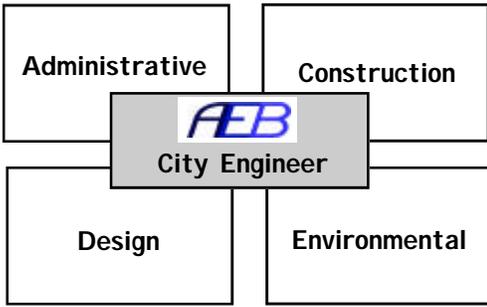
Design Division

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madonmi@ci.akron.oh.us

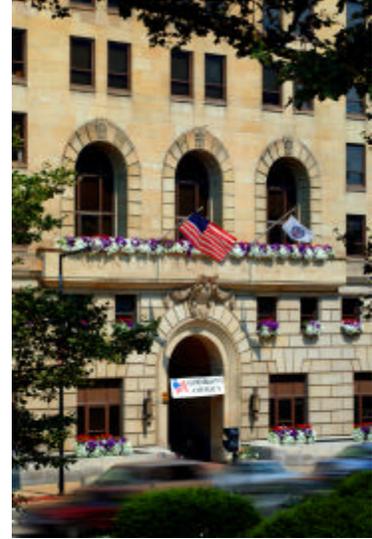
Environmental Division

Patrick D. Gsellman PE
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City Engineer



Core Functions

The Akron Engineering Bureau (AEB) is responsible for the planning, design and construction of the public improvement projects of the City of Akron. Our goal is to produce high quality projects on schedule and within budget. In 2003, the Akron Engineering Bureau bid over \$30.9 million worth of public improvement projects. The Bureau also paid out over \$40.1 million in construction payments during the year. The types of projects include: street and sidewalk reconstruction, bridge maintenance and reconstruction; parks, playgrounds and athletic fields; building construction and rehabilitation; public utilities (water, storm and sanitary sewer system improvements).

AEB employees maintain cooperative working relationships with the public, City Council, the Administration, other City divisions, consulting engineering firms, utility company representatives, contractors, developers, suppliers and federal, state and municipal agencies. While accomplishing our mission, the highest level of ethics and professionalism is maintained.

The Engineering Bureau continued its active participation in the World Class Organization (WCO) initiative in 2003. Engineering Bureau personnel are members of the Leading Change Team (LCT) and the E3 Core Design Team. The E3 Core Design Team includes representatives from the Engineering Bureau, Public Works Engineering Services and Traffic Engineering.

In 2003 the Team worked through defining the organization structure, identifying resources and developing the Action Plan. The draft Action Plan was scheduled to be presented to the LCT in early 2004. The various recommendations were grouped into the categories of (1) E3 recommendations, (2) quick wins, (3) keep-it-running and (4) forward/handoff. Each recommendation is classified as organizational, process and practice or technology. In 2004 "design to pilot" teams will be established to complete details and determine business case.

2003 Goals

Reduced our in-house costs by increasing flexibility of employees working for multiple divisions.

Implemented the first phase of the Customer Service Request system.

Completed the 2003 project manpower projections.

Conducted an in-house training seminar for 19 Project Managers for our consultant contract development process.

Assigned fifteen Engineering Technicians to the Construction Division from the Design and Environmental Divisions for the construction season.

Assigned six Engineering Technicians to the Design or Environmental Divisions for the winter season.

Assigned four Civil Engineers to the Construction Division from the Design and Environmental Divisions to be Resident Project Representatives in an effort to reduce construction administration costs and develop design skills.

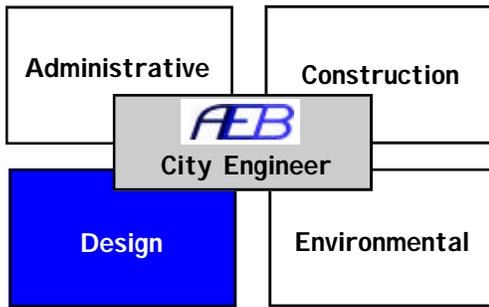


Service Levels

In 2003 the Engineering Bureau processed 398 contractor invoices for \$40.9 million, and 588 consulting invoices for \$6.7 million, totaling \$47.6 million.

The Engineering Bureau bid and administered 55 construction contracts with 31 different contractors for a total of over \$30.9 million in 2003.

The Engineering Bureau attended 24 public meetings to inform the public about City projects and procedures.



Design Division



Core Functions

Programming/Budgeting
 Detail Design
 Project Management
 Public Involvement
 Transportation Program
 Consultant Contract Administration
 Standards and Specifications
 Plan Review
 Surveying
 Mapping

Subdivision and Plan Review



Jim Anderson Wayne Bachus Travis Capper Jeff Caston Andrew Davis Michelle DiFiore Rick Fischer
 Bob Geiser Jason Harris Dennis Hawthorne Tish Jernigan Christine Jonke Randy Keirns Leah Lee
 Mike Madonio Bill Magyar Bill Marras Beth Mettle Jeff Miller Dianne Reed Phil Rohr Chad Root Rob
 Scarletelli Adam Staller Sanford Taylor Michael Teodecki Don Vardon Jim Vechery David Wilkerson

2003 Goals

Provided in-house training for the Architectural design team in order to transition to AutoCAD. Some formal training will be necessary in 2004. Developed the Design Division staff by promoting training programs for specific design-related issues such as GIS training, QA/QC process, and other design-related issues. In-house training has also included AutoCAD forums of various topics.

Established and implemented design criteria for precast inlets that determined inlet type and spacing for roadway improvement projects.

Developed and implemented a program to download parcel information directly into AutoCAD and Excel to use with work agreements and assessments.

Major Accomplishments

Completed plans for the Sand Run Road Stabilization project. Improvements included stabilizing both sides of the bank along Sand Run Road.

Completed plans for the North Main/Furnace Streetscape project. Improvements included parking, full depth pavement reconstruction, street lighting, ornamental pedestrian lighting, walk, curb, and underground utility relocation.

Completed the design of the Copley Road Soccer Complex. The project included seven soccer fields, a concession building, pavilion, tot play area, maintenance building, and all related utilities.

Completed the design of the Pickle Road Sports Complex. The project includes three softball fields, one high school baseball field, one soccer field, a pavilion, a concession building, and related utilities.

Completed the design of the CSRS 311 Center. The project included the renovation of existing office space at the Municipal Service Center to function as the Customer Service Request System Center.

Completed the design for the Upgrade of US 224 from Kelly Avenue to Hilbish Avenue.

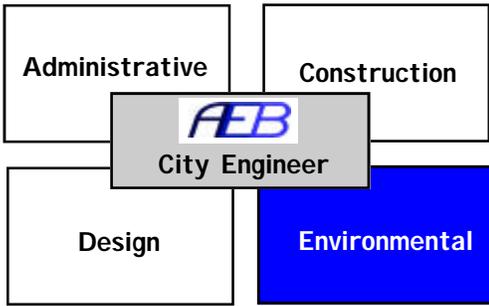
Training

QA/QC Process
Dedication Plats and Vacation Plats
Invoice Approval for Supplemental Services Contracts
Precast Inlets
Importing Parcel Information into a CAD Drawing; Consultant's CD & Survey Standards
GIS Training
Akron Signalization Action Plan, Freeway Management System
Demonstration of current GIS Suppliers/Manufacturers Presentations
Design and construction of Con-Span Bridge Systems.
Haydite for geotechnical applications

Slope Stabilization Issues in the Akron Area
Innovations in Corrosion Mitigation
Retaining walls and pavers
AutoCAD
Plotting with AutoCAD
Construction Material Seminars
Presentations using Power-Point
Environmental & Transportation Development Process
RPR training
Prof. Land Surveyors Conference
ODOT training
Acrobat 5.0 and Adobe Photo Shop
Outlook Scheduler Demonstration



LPA Local Let Policy & Procedures
ODOT Engineering Conference
Autodesk University 2003 Conference



Environmental Division



Core Functions

Detailed Design
 Project Management
 Developer Assistance, Coordination
 and Plan Review
 Storm Water Management
 Sanitary Sewer Evaluation Studies
 Water Pollution Control Station
 Joint Economic Development Dis-
 tricts (JEDD)
 Slope Stability/Erosion Control
 Brownfields
 Facilities Planning

Combined Sewer Overflows (CSO)
 GIS
 Industrial Park Site Development



Genny Barth Brad Beckert Len Blankenship Chris Bores Jeff Bronowski Patrick Gsellman
 Kurt Heffernan Mark Pirie Jeff VanNatten

2003 Goals

Provided training to Division Staff in the areas of FEMA (National Flood Insurance Program), HEC-RAS Hydraulic Modeling, Wetland Permitting, GIS and Brownfields.

Provided training and education opportunities on natural channel design.



Major Accomplishments

Obtained approvals from Ohio EPA and Corps of Engineers to proceed with improvements to the final phase of the Ascot Phase II Industrial Park and final grading of the Massillon Rd Industrial Park Site.

The Fairlawn CC Stream Erosion Project and the Beech Street Power Plant Demolition were awarded Clean Ohio Funds.

The design was completed for the public improvement for the Park West Development. Construction started in late 2003.

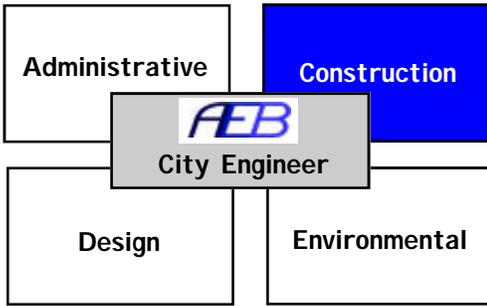
The design of the CSO Rack 40 Project started in 2003. The construction funding will be arranged through the Ohio EPA Ohio Water Pollution Control Loan Fund DEFA Program. This allows for a lower interest rate and return of interest moneys



Training

- CADD Training w/ Survey Module
- Network Drive Awareness
- Construction Material Seminars
- Construction RPR Seminar
- WCO Presentations
- GIS Application Seminar (ASCE)
- Tour of Storage Basin Facilities
- Clean-Ohio Application Workshop
- Storm Water Conference
- OWEA Annual Conference
- WEFTEC 2003
- Section Meeting, Tour of Southerly WWTP (OWEA)
- OWEA Section Meeting and Tours
- Environmental Law Update
- WEF Washington Briefing
- Ongoing Pilot Facility at Toledo WWTP
- OWEA Government Affairs Conf.
- OEEF Training, Ohio EPA
- HEC-RAS Modeling
- Urban Stream Restoration
- FEMA Presentation
- Wetlands Permitting
- Brownfields
- EEO Laws
- WEF TMDL 2003





Construction Division



Core Functions

Construction Project Administration
 Plan Review
 Materials Testing Laboratory
 Bridge Inspection and Inventory
 Public Involvement



Juan Pablo Ascarrunz Mike Brehob Dave Cooke T. Scott Davenport Karen Dyer Rick Falkenstein Fred Fassnacht
 Bill Hahn Jim Hall Jason Harris Chuck Hirsch Mike Huber Kerry Jones Jason Kline Chad Kobelt Richard Kovach
 Bill Magyar Jon Malish Paul McCutcheon Jeff Miller Cory Moke Mark Moore Larry Peaslee Barry Pruitt
 Jody Richards Adam Staller Bill Stump Mike Watt Jim Weber David Wright MikeWytrzyaszczewski Jason Zajac

2003 Goals

Continue the development of a continuing education program for Resident Project Representatives.

Update the Resident Project Representative Source Book.

Conducted the Resident Project Representative Seminar.

Continue to monitor Gypsy Moth infestation and work with the Ohio Department of Agriculture to have the highest levels treated.

Have the proper personnel attend training on how to program projects using the design-build method of project delivery.

Major Accomplishments

Ascot Industrial Park – Phase III

Broadway Street

Darrow Road

Eastwood Avenue

Frank Boulevard

Lock III Park

Main Street Electrical Upgrade

Mud Run Golf Course and Clubhouse

North Portage Path Bridge

Safety Net Dental Clinic

Sand Run Road

Flood response

- Tiffany Circle Sewer Emergency Repair
- Riverview Road Emergency Repair
- Hike and Bike Trail Emergency Repair
- Merriman Road Slope Emergency Repair

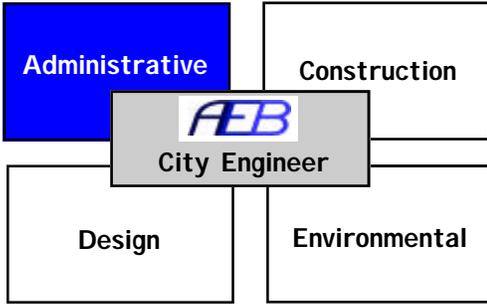


Training

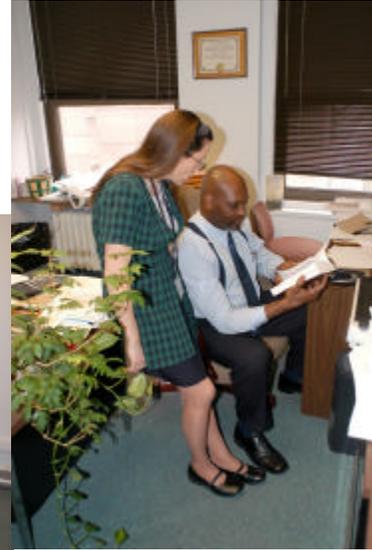
AutoCADD
RPR Seminar
Concrete
Business writing

World of Concrete
Asphalt paving
Design-Build
Architectural Projects

Pesticide Certification Training
Mold and Asbestos Seminar



Administrative Services Division



Core Functions

- Legislation
- Contract Preparation
- Street Improvement Petitions
- Street Dedication Petitions
- Private Development Agreements
- Underground Records
- Central Records Files
- Service Counter
- Secretarial Staff
- Computer Mapping/GI S
- Resolving Legal Claims
- Computer Hardware Support
- Computer Software Support



Wendy Doyle Linda Fallon Alicia Garnett Brent Kelley Kenneth Kostura Marianne Kracker Pam Pollock
 Joe Prekop Larry Thomas Patty Trudics

2003 Goals

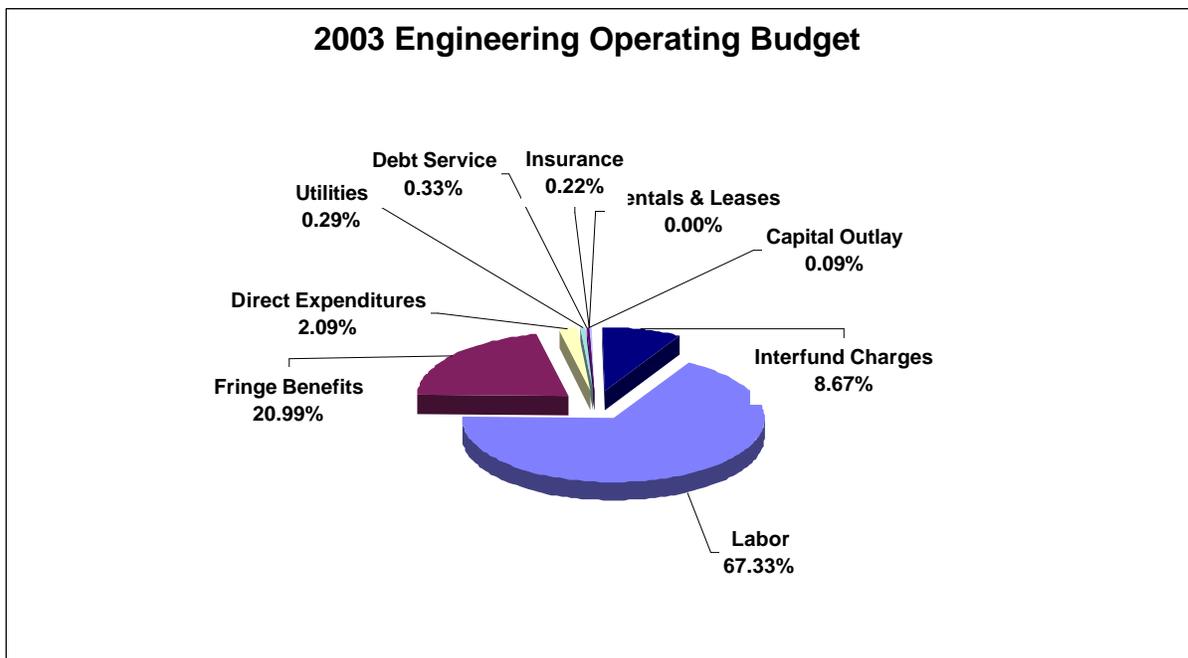
Transferred as-built project information from 101 construction projects to the Sewer Underground Record Maps

Updated the Engineering Bureau web page to include the schedule of upcoming bid dates and preliminary bid results. Working through a vendor, we also made available on the internet legal notices, plans and addenda to assist our customers.

Converted the Engineering Bureau Policy Manual to electronic format and made it available to the employees over the intranet.

Implemented the first phase of the Customer Service Request system in August.

2003 Budget



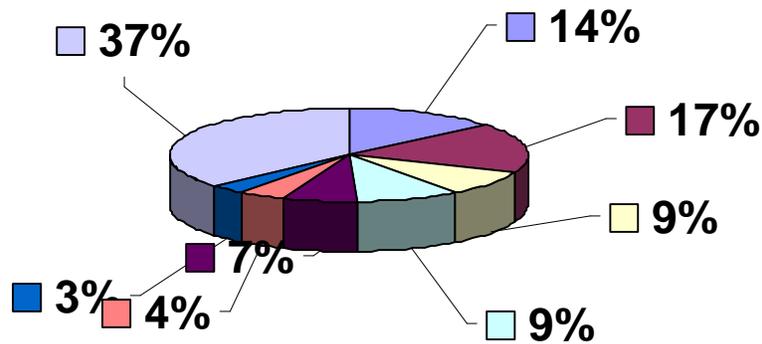
Training

- Front Page 2000 Training
- Secretarial Support
- Cross-Training
- EEO Laws Training
- EAP Organizational Influence
- CSR Training
- Scanning with Alchemy
- Consultant Contract Seminar
- ODOT LPA Project Administration
- AutoCAD Forum
- RPR Seminar



2003 Sources of Revenue

- Income Tax
- General Obligation Debt
- Sewer Capital Fund
- Water Capital Fund
- Community Development
- Federal & State Transportation Funds
- Ohio Public Works Commission Funds
- Other



2003 Program Expenditures

- Public Utilities
- Transportation
- Economic Development
- Debt Service
- Housing & Human Resources
- Public Facilities
- Parks & Recreation
- Other

