

**OFFICE OF THE CITY ENGINEER
2009 ANNUAL REPORT**

Asphalt Patching and Curb Replacement

In July 2009, Best Excavating was awarded the Asphalt Patching and Curb replacement project. Using 1600 tons of asphalt, Best Excavating completed patching on Brown Street from 3rd Street to 8th Street, Goeller Blvd., Tipton Lakes Blvd. and McClure Road. Best completed extensive curb work along Brown Street installing 1378 LF of new curb. 250 feet of underdrain was installed at Goeller Blvd. and Tipton Lakes Blvd.



Asphalt Patching on Tipton Lakes Boulevard

Overlay Program

In September of 2009, Milestone Contractors was awarded the City's annual overlay program with a contract amount of \$395,822.05. Milestone placed 4664 tons of asphalt on 2.3 miles of City streets. Overlaying a one mile stretch of City street, 24 feet wide by 1 inch in depth, costs \$46,076.80



Overlay on Central Avenue

Crack Seal Program

Dave O'Mara Contractor was awarded the 2009 crack sealing contract in March with a low bid of \$32,358. Crack sealing consists of cleaning, preparing and sealing pavement joints and random pavement cracks on selected streets throughout the city. Dave O'Mara crack sealed 18 lane miles to add longevity to the City's streets. Sealing cracks in city streets increases pavement life, allowing a longer time between more intense street maintenance, such as overlay.



Crack Sealing in Breakaway Trails

Concrete Street Repairs



In May 2009 Excavation Plus was awarded the concrete street repair contract with a low bid of \$125,009. Concrete street repairs were made in the Everroad Park West neighborhood and Shagbark Court in Tipton Lakes. Excavation Plus removed and replaced 2745 square yards of concrete street, placed 893 tons of #73 stone and excavated 467 cubic yards of concrete and soil.

Everroad Park West Concrete Street Repairs

Drainage Repairs

Kings Trucking and Excavation was awarded a Miscellaneous Drainage Repair project in June 2009 with a low quote of \$18,271.41. They made miscellaneous repairs at 4 different locations.

In November 2009, with a low quote of \$19,584.93, CASE was awarded a project to complete patching and install underdrain at Fontview Court in Tipton Lakes. The project included installing 30 LF of 2' roll curb and gutter, installing 630 LF of 6" underdrain and 27 SY of asphalt patching.

In March of this year, the City Engineer's Office began to implement the department's newly developed Lean Six Sigma process. Rather than outsource small scale drainage repair projects, the City Engineer's Office began to work with the City Garage to coordinate these repairs. All initial reports have been favorable and 25 projects have been completed at a cost of \$ 40,943.32.



16th Street repair by City Garage



City Garage repair at Tipton Lane

Infrastructure

The City's infrastructure continued to expand in 2009 with the acceptance of Shadow Creek Farms Section 3, McCullough's Run Phase I, McCullough's Run 5th Replat, and Spruce Ridge. This growth added approximately 13,587 linear feet (2.573 miles) of new streets to the city's infrastructure.

Indiana Department of Transportation

INDOT continues to implement their Major Moves Plan which outlines construction projects through 2015. Three Major Moves projects are programmed in Columbus.

State Street is under construction between Marr Road and Mapleton Street. The improvements include four travel lanes with a center turn lane, sidewalk, storm sewer, realignment of Mapleton/Pence Street, new traffic signals at Marr, Gladstone, and Mapleton, and new left turn lanes at intersections. Construction is estimated to be complete by the summer of 2010.

Milestone Contractors began construction on the US 31 project late this year. Construction will go from Washington Street to Road 50 North and will include a new bridge over Clifty Creek. Construction will continue through 2011. The project includes four travel lanes with a center turn lane, new concrete curb and gutter, new storm sewer, new sidewalk, interconnected signal equipment, and two new bridges.

Improvements are scheduled for the Interchange at I-65 and State Road 58. Final design plans have been submitted to INDOT for review and the project is scheduled for letting in March of 2010. The exit ramps will be widened to two lanes and the overpass bridge will be widened to add a center left turn lane. In order to improve traffic flow, turn lanes will be added to State Road 58 at the interchange. Access to the gas station and residential property at the Northwest quadrant will be modified to reduce turning movement conflicts in close proximity to the interchange.

Projects in Development

17th Street from Central Avenue to US 31

Design Engineer:	Strand and Associates
Right of Way Services:	Strand and Associates
Construction Engineer:	Strand and Associates
Contractor:	Milestone Contractors

Improvements will include four travel lanes, sidewalk, curb and gutter, storm sewers, and dedicated bicycle lanes. The project was let by INDOT in November with Milestone Contractors as the low bidder. Milestone's bid was more than \$1,000,000 (19.7%) below the engineer's estimate. Pending contracts and notice to proceed through INDOT, Milestone will be clearing R/W immediately with construction in earnest to begin in the spring.

Road 200 South between State Road 11 and 150 West

Design Engineer: Janssen & Spaans Engineering
Right-of-Way Services: Beam, Longest & Neff

Improvements will include a dual left turn lane, curb and gutter, and storm sewer. The City has initiated the right-of-way process which should be complete in mid to late 2010.

Indiana Avenue from State Street to Marr Road

Design Engineer: Hannum, Wagle & Cline Engineering
Right-of-Way Services: Strand and Associates

Improvements will include curb and gutter, storm sewer, sidewalk, and dedicated bicycle lanes. The City has initiated the right-of-way process which should be complete by late 2010 to early 2011.

Rocky Ford Road from Taylor Road to Talley Road

Design Engineer: Strand and Associates
Right-of-Way Services: Strand and Associates

Improvements will include curb and gutter, storm sewer, sidewalk, and dedicated bicycle lanes. The City has initiated the right-of-way process which should be complete by late 2010 to early 2011.

Preliminary Engineering continues for the following projects:

Westenedge from US 31 to Rocky Ford Road – Christopher B. Burke Engineering, LTD.
Taylor Road from 25th Street to Rocky Ford Road - DLZ
Carr Hill Road – Janssen & Spaans Engineering

Six Sigma

In an effort to become more efficient, the City of Columbus, through Ivy Tech Community College, provided Lean Six Sigma training to all department heads, and each department initiated a Lean Six Sigma project. The City Engineer's office decided to apply this process to the way it handles small scale drainage repairs. Utilizing the Six Sigma DMAIC process the Engineer's office analyzed the existing process, made changes to the process in conjunction with the City Garage, implemented the new process, and began taking data and controlling the new process. The Engineer's office was up and running on this project in March of this year. Since that time, 25 projects have been initiated. Data continues to be collected, and a report will be issued after the first of the year evaluating the performance of the process.

Initial results of the process have been favorable leading to a change in the City's business practices. The administration of the Storm Sewer Operating Budget has been shifted to the City Garage. The Engineer's office will maintain an active role in storm sewer maintenance by fielding citizen concerns, developing solutions to problems, preparing technical drawings and specifications for quotes or bids within the office's scope, and providing consultation during construction.

WalkWorks

WalkWorks, the City's sidewalk replacement program, was established in 1991 to encourage property owners to replace unsafe, deteriorated sidewalks. The City reimbursed property owners \$10 per linear foot of sidewalk, after it was replaced and inspected. During the 2009 construction season, *WalkWorks* replaced approximately 862 feet of concrete sidewalk and installed 3 ramps. In addition, *WalkWorks* participated in several drainage projects by funding the replacement of curb and gutter.

The Engineer's office provides technical assistance to other City departments to facilitate, administer, or complete projects. The Engineer's office provided the following assistance in 2009:

Redevelopment Commission

- Jackson Street Connection
- Cummins Parking Garage
- Cole Apartments

Mayor's office

- Six Sigma

Community Development

- Block Grant Sidewalk Project
- Veteran's Day Parade
- Ethnic Expo
- Garden plots

Parks and Recreation Department

- Festival of Lights Parade

Fire and Police

- Mapping and Diagrams

Planning Department

- Plan Commission Member
- Subdivision/Plat Review Committee
- Improvement plan and Drainage review

Columbus Area Metropolitan Planning Organization

- GIS Development
- Walesboro Airport Master Plan



Jackson Street Connection



Block Grant Sidewalk Project on Pennsylvania Street

Permitting

The City Engineer's office administers several types of permits to control day to day impacts to infrastructure and traffic. Applications for permits can be picked up in the Engineering office, or can be accessed on-line. There is no charge for making these permit applications to the Engineering office.



The Commons site

A Request for Special Use of Right-of-Way is required any time the right-of-way is going to be encumbered. Typical requests are for street closures, closure of sidewalks, or parking spaces. In 2009, 252 requests were processed, including requests for Zaharako's Grand Opening, Downtown Farmer's Market, and a Bookmobile. Also requests were approved for public art installation, office moving, City special events, parades, benefit walks, and the Columbus City Utilities sanitary sewer project.

A Permit to Excavate in a Public Street, Alley or Right-of-Way is self explanatory. Applicants for this type of permit are generally accessing utilities that reside within the right-of-way of a City street. Some utilities lie under pavement necessitating a street cut to access the utility. Although there is no cost to make the permit application, contractors are required to bond their work for a period of three years to protect the City infrastructure which they have impacted. The City Engineer's office processed 190 permits to excavate in a public street, alley or right-of-way in 2009.



Cummins Parking Garage

Improvement in the Right-of-Way Permits are required for work performed in the right-of-way that does not fall under the Permit to Excavate in Public Street, Alley or Right-of-Way. Typical applications are for driveway or curb repairs. Improvements are required to meet City standards and the Engineer's office inspects all work. In 2009, 79 Improvement in the Right-of-Way Permits were processed by the City Engineers office.