

CITY OF WOOSTER  
DIVISION OF ENGINEERING  
**2015 Annual Report**



**North High Water Tower – Melrose Drive**

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**Summary & Narrative – Section 1**

## **Division of Engineering 2015 Annual Report Executive Summary**

The 2015 Annual Report for the Division of Engineering is contained in the following pages. The intent of this report is to summarize roles and responsibilities of the Division of Engineering, as well as describe the major projects and activities accomplished by the Division of Engineering for the year ending December 31, 2015. Hopefully, this report will provide information that can be used for City organizational, development and infrastructure planning for the coming years.

The Division of Engineering has attempted to meet the City's mission in the most cost effective way possible. Most infrastructure projects are designed, managed, and inspected in-house by Engineering Division staff, keeping average fees for professional services at 4.45% for 2015. The industry average for design and professional engineering costs is 8% to 11% of the estimated construction costs. The value of engineering services provided by the Engineering Division for projects was over \$1,300,000 in 2015.

The Engineering Division managed over 37 infrastructure projects in 2015. The total dollar value of construction projects completed or under construction in 2015 was over \$22,000,000. Final construction costs were slightly higher than the contracts awarded price due to several issues arising during resurfacing and concrete repairs on city streets. The division diligently tracks and records quantities, materials stored and other aspects of construction management to ensure the city does not incur unjustified overages.

The Engineering Division is responsible for managing the replacement and improvement of the City's infrastructure. Including construction and development in 2015, the City now has over 400 miles of piping in its utility system and over 130 miles of roadway in its transportation system; 70% of the utility infrastructure is greater than 20 years old.

The Engineering Division also reviews and issues permits for all utility and site work construction activity in the City, as well as enforcing the City's Site Development Regulations and Storm Water Management Regulations. 173 permits were issued in 2015 compared to 158 in 2014.

The Engineering Division is also the City's representative for the Ohio Utilities Protection Service, and is responsible for locating and marking all city owned utilities whenever requested by contractors and proposed development. These requests have consistently numbered over 2000 each year since 1991. 2015 brought another increase in notifications processing 3165 requests. Per state law, not only are we responsible for physically marking the locations, we also are responsible for responding to requests electronically. The Engineering Division along with PPM traffic use WEBTMS software to note whether the locations have been marked, no conflict or a design ticket.

The Engineering Division is also responsible for all mapping, parcel data, addressing, utility information, and traffic control data that is contained in the City's Geographic Information System, or GIS. This information is updated and used on a daily basis for project planning, design, and maintenance of the City's infrastructure.

## Division of Engineering Mission Statement and Objectives

**Mission:** Our mission in the City of Wooster, Division of Engineering is to plan, advise, administer, oversee implementation of and document all public works improvements and subdivision development with the aim of providing these services cost effectively and timely while protecting the public health, safety and welfare.

**2016 Objectives:** To continue to manage the City's infrastructure construction and documentation in a way that will provide adequate service to residents, sustain development, and allow for intelligent infrastructure planning. The Division of Engineering attempts to balance the infrastructure needs of the city with the financial resources available. At the same time, current and future development and its associated demands are considered when attempting to develop a strategic plan for infrastructure improvements. The Division strives to provide design engineering services and construction monitoring to keep the outside engineering costs below the 8% industry average.

**Personnel:**

<i>Name</i>	<i>Title</i>	<i>Years Experience</i>
Roger Kobilarcsik	City Engineer, Licensed Professional Engineer	26
Dave Case	Inspector II, Assoc. Degree Civil Eng. Technology	22
Matt Hill	Inspector II, ODOT Right-of-Way Certification	31
Spencer Gray	Engineering Technician/Drafter	31
Tom Hart	Engineering Technician/GIS Technician	33
Lynne DePaulo	Administrative Assistant/Contract Specialist	39
John Rice	Staff Engineer, Licensed Professional Engineer	9
Lance Cole	Project Manager	23
Tim Leach	Inspector II, Assoc. Degree Civil Eng.	6

**Operations:**

O&M costs have remained steady over the past several years. The Division is on a regular schedule for replacing and/or upgrading computer equipment. The cost is spread out over two years; 2014 saw the replacement of 4 employees computers, 2015 the remaining 5 employees received new computers. The Division also purchased three Surface Pro 3 Tablets to be used in the field.

**Capital:**

The current system of infrastructure project prioritization is primarily reactive. Capital improvement projects are currently implemented as portions of the system fail, in response to regulatory mandates, in an effort to avoid lawsuits, or complaint driven. Funds are limited and the result is that the most needed projects are not always addressed.

Wooster's Infrastructure Strategic Plan indicates the following funding needs:

- ▶ 60 projects planned for construction from 2016-2020
- ▶ \$18,279,000 in Roadway
- ▶ \$10,645,000 in Water
- ▶ \$4,000,000 in Sewer
- ▶ \$4,613,000 in Storm

The most pressing needs within the next two years are as follows:

1. Water Distribution and Storage – Replacing existing mains and maintenance of water tanks
  - a. Funding Needs in 2016 = \$1,245,000
  - b. Funding Needs in 2017 = \$2,050,000
2. Sewer Collection – Lift Station upgrades
  - a. Funding Needs in 2016 = \$400,000
  - b. Funding Needs in 2017 = \$850,000
3. Roadways – Roundabouts, traffic signals and streetscape
  - a. Funding Needs in 2016 = \$3,034,000
  - b. Funding Needs in 2017 = \$5,100,000
4. Storm Sewer – Culvert replacements, sewer line installation
  - a. Funding Needs in 2016 = \$1,405,000
  - b. Funding Needs in 2017 = \$1,110,000

The Engineering Division aggressively seeks outside funding sources in an effort to offset the high costs of infrastructure improvements. The City has been awarded close to \$8,000,000 in the last two years in grant money or low interest loan money from various sources such as ODOT, EPA, OPWC, CDBG and others. These funds have been applied to water system projects, sewer separation projects and roadway projects including resurfacing.

OPWC is currently funding the WCPC Improvements project with a \$500,000 grant and a \$713,852 low interest loan. They are also providing a grant in the amount of \$398,640 for the Secondary Transmission Waterline project being done in the Northwestern, Pearl and Forest areas.

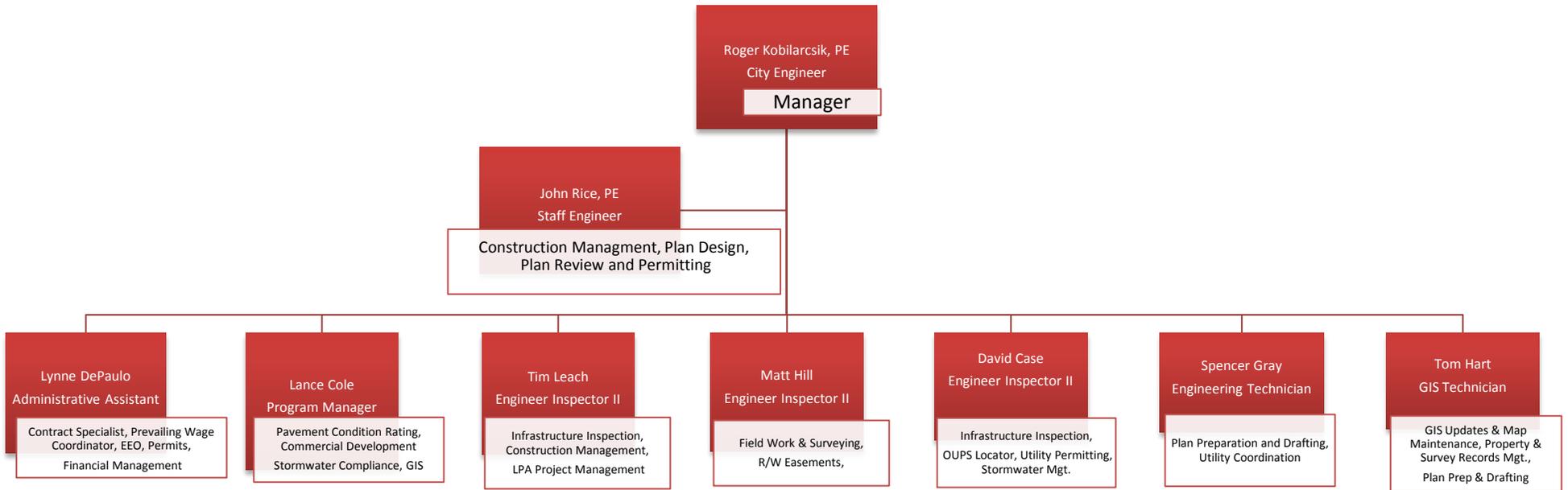
ODOT has provided over \$5,000,000 in funding for projects which included Akron Road, Safe Routes to Schools Sidewalk Improvements and resurfacing projects. The chart below details the actual dollars received from the various sources in 2015.

2015 Funding Received

PROJECT	BID PRICE	FINAL PROJECT COST	Funding Source	2015 Funding Received
SRTS Kean	\$191,729.65	\$202,090.32	ODOT	\$123,444.00
Friendsville Road	\$1,798,042.00	\$1,990,548.00	ODOT	\$1,271,725.00
Portage Road	\$238,692.00	\$238,610.00	ODOT	\$182,948.49
Akron Road Phase 2	\$3,077,862.00	UC	ODOT	\$2,315,768.00
SRTS Parkview	\$320,142.00	UC	ODOT	\$0.00
E. Liberty	\$396,203.65	\$379,093.00	ODOT	\$0.00
Oldman Connector	\$162,287.00	\$149,195.00	ODOT	\$0.00
Palmer	\$118,036.00	\$112,691.00	ODOT	\$0.00
Geyers Chapel	\$293,781.00	\$276,290.00	Ohio Jobs	\$279,633.00
WPCP Improvement	\$3,817,000.00	UC	OPWC	\$635,460.61
Secondary Transmission	\$1,136,633.00	UC	OPWC	\$203,162.77
				\$5,012,141.87
Total Grant				\$4,876,681.26
Total Loan				\$135,460.61

# Division of Engineering

## Organizational Chart



## Stormwater Management

The Division of Engineering is responsible for the City's Stormwater Management Plan and Municipal Separate Storm Sewer System (MS4) as mandated by the Ohio EPA. The program entails managing a minimum of six control measures.

- 1) **PUBLIC EDUCATION AND OUTREACH:** The City has formed and maintained a cooperative agreement with Wayne County Soil and Water Division (Wayne SWDC) to educate students and the general public in environmental conservation through programs such as Freddie the Fish, Groundwater Wonders and Enviroscape. Kelly Riley, Education Specialist with the Wayne SWDC, taught more than 50 sessions last year through public school programs reaching more than 1200 students. Riley also provided information and support through programs offered at the Wayne County Fair and the Ohio Agriculture Research and Development Center (OARDC) addressing such topics as conservation, pond maintenance, point source and non-point source pollution and Best Management Practices (BMPs).

The City has also continued several outreach programs to education residents within the City. These programs included informational letters to residents that maintain septic systems within the City limits called HSTS, and educational flyers on an annual basis to residents whom receive public water, storm and/or sanitary services. The City also maintains a public website that provides information to users about the City's Stormwater system, how and where to dispose of materials that could impact public waterways and users can submit stormwater complaints via the web interface directly to the City Engineer and others involved.

- 2) **PUBLIC INVOLVEMENT AND PARTICIPATION:** The College of Wooster, OARDC and various service organizations partner with the City's Park Department in park clean-up activities, tree planting and trail projects. Links are provided on our website for local information on recycling and connecting users to the Tri-County Waste Management Division. The City is actively looking for methods to increase public involvement and participation.
- 3) **ILLICIT DISCHARGE DETECTION AND EDUCATION:** The Engineering Division is responsible to locate, map and update the City's storm water system onto the GIS. The Engineering Division is in the process of completing a comprehensive review of the existing data and making significant modifications to how data is stored to meet new Ohio EPA permit requirements. Comprehensive inventories of all public and private outfalls (discharge points of the storm water system), culverts, HSTS and permanent Best Management Practices (BMP) are being completed to facilitate the management of these assets and compliance with Ohio EPA permits guidelines.

The City also implemented numerous programs to aid in the detection, prevention and monitoring of the stormwater system in terms of illicit discharge. These programs include; smoke testing of areas that have been identified as possible contributors of illicit discharge, regular inspection of more than 500 outfalls for signs of contamination, environmental stress, overall structural condition and proper function, video inspection of storm and sanitary systems to evaluate possible infiltration, along with damage and tree root infestation. The Engineering Division performs annual dry weather screenings to identify other areas possible requiring further investigation. Several other new programs are under consideration, pending final guidance from the Ohio EPA.

- 4) **CONSTRUCTION SITE RUN-OFF CONTROL:** This year 18 new National Pollution Discharge Elimination System NPDES permits were issued by the Ohio EPA for projects greater than one acre within the City of Wooster MS4. The Engineering Division is responsible for reviewing the plans for these permits, monitoring construction activities for new and previously issued permits and insuring compliance with Ohio EPA regulations. The City project manager inspects and monitors an average of 21 sites per month for compliance to their approved Storm Water Pollution Prevention Plan (SWP3), proper installation and maintenance of BMPs and issues notices of noncompliance and violation notices as need to meet EPA regulations.

The Engineering Division is in the process of incorporating NPDES permit data into the City GIS system to assist in tracking the progress of active NPDES permits and provide historical data for previously issued permits. This effort is being undertaken to meet new requirements of the most recent issuance of the City's MS4 permit and Ohio EPA requirements.

- 5) **POST CONSTRUCTION STORM WATER MANAGEMENT:** Numerous changes are underway to meet Ohio EPA requirements for post construction stormwater management and monitoring of more than 150 permanent BMPs. During the summer of 2014 a comprehensive inventory was completed of all new, existing and proposed permanent BMPs within the City's MS4. The inventory involved identifying the physical BMP, collecting original design information, performing a physical inspection and evaluating compliance to design specifications. Effective 9/11/2014 the Engineering Division is required to annually inspect each permanent BMP and issue a letter of findings to the property owner and insure proper maintenance and repair of each BMP.
- 6) **POLLUTION PREVENTION/GOOD HOUSEKEEPING:** In 2013 the City implemented a Stormwater Pollution Prevention Plan for the Wooster Service Center as part of the City's MS4 permit. The plan addresses service center activities, methods to minimize exposure, good housekeeping, spill prevention and response, management of surface water runoff, waste and garbage management and dust generation control. The plan is jointly managed by PPM and Engineering to implement training, inspections, documentation and meet compliance requirements. This year the City will be utilizing several training opportunities available from the Ohio EPA to continue meeting the SWP3 requirements.

## 2015 PROJECT NARRATIVE

The Engineering Division managed more than 38 various projects in 2015. Variety is the key word; projects included demolition, waterline replacement, cell tower installations, playgrounds, roadways, water towers and safety centers. The staff of nine designed, inspected and administered nine waterline projects, three sanitary projects, seventeen roadway projects and six miscellaneous projects totaling over \$22,000,000 in estimated construction costs.

The following pages give a brief synopsis of our 2015 infrastructure projects.



## 2015 Projects Under Construction

### **ROADWAY – SIDEWALK PROJECTS -** (18 projects - \$9,084,723 Estimated Construction Costs)

<p><b>Akron Road – Phase 2</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Associates</li> <li>• Funding: ODOT</li> <li>• Bid Date: April 2014</li> <li>• Estimate: \$3,100,000</li> <li>• Contractor: Wenger</li> <li>• Bid Price: \$3,077,862</li> <li>• Completed October 2015 – Final paperwork not completed</li> </ul>	<p><b>SRTS - Parkview</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: ODOT</li> <li>• Bid Date: August 2014</li> <li>• Estimate: \$281,000</li> <li>• Contractor: Terra Valley</li> <li>• Bid Price: \$320,142</li> <li>• Completed July 2015 – Final paperwork not completed</li> </ul>	<p><b>Edgewood Allotment Concrete</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: July 2014</li> <li>• Estimate: \$190,000</li> <li>• Contractor: Smith Paving</li> <li>• Bid Price: \$211,700</li> <li>• Final Price: \$367,711</li> <li>• Completed April 2015</li> </ul>
<p><b>Friendsville Road Reconstruction</b></p> <ul style="list-style-type: none"> <li>• Designed: GPD</li> <li>• Funding: ODOT</li> <li>• Bid Date: September 2013</li> <li>• Estimate: \$2,065,000</li> <li>• Contractor: Stout Excavating</li> <li>• Bid Price: \$1,798,042</li> <li>• Final Price: \$1,990,548</li> <li>• Completed October 2014 – Still waiting on ODOT to perform audit</li> </ul>	<p><b>Geyers Chapel Road Reconstruction</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: Ohio Jobs</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$330,000</li> <li>• Contractor: Melway Paving</li> <li>• Bid Price: \$293,781</li> <li>• Final Price: \$276,290</li> <li>• Completed August 2015</li> </ul>	<p><b>WAY – Palmer Street Resurfacing</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: ODOT</li> <li>• Bid Date: June 2015</li> <li>• Estimate: \$132,500</li> <li>• Contractor: Kokosing</li> <li>• Bid Price: \$118,036</li> <li>• Final Price: \$112,691</li> <li>• Completion: October 2015 – Waiting on ODOT to perform audit</li> </ul>
<p><b>Minerva Paving</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Proposal Date: February 2015</li> <li>• Estimate: \$43,500</li> <li>• Contractor: Kokosing</li> <li>• Proposal Price: \$37,328</li> <li>• Final price: \$34,671</li> <li>• Completed October 2015</li> </ul>	<p><b>Point-of-View, Crabapple Paving</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: April 2015</li> <li>• Estimate: \$81,500</li> <li>• Contractor: Kokosing</li> <li>• Bid Price: \$74,643</li> <li>• Final Price: \$107,708</li> <li>• Completed October 2015</li> </ul>	<p><b>CDBG Sidewalk (2015)</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: CDBG</li> <li>• Bid Date: September 2015</li> <li>• Estimate: \$57,000</li> <li>• Contractor: Mid Ohio Concrete</li> <li>• Bid Price: \$44,636</li> <li>• Final Price: \$52,299</li> <li>• Completed December 2015</li> </ul>

## ROADWAY – SIDEWALK PROJECTS

<p>WAY – Various Roadways 2016</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: ODOT</li> <li>• Bid Date: December 2015</li> <li>• Estimate: \$945,000</li> <li>• Contractor: Melway Paving</li> <li>• Bid Price: \$747,381</li> <li>• Under Construction</li> <li>• Completion Date is July 2016</li> </ul>	<p>Oldman Connector Trail</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: ODOT</li> <li>• Bid Date: April 2015</li> <li>• Estimate: \$180,000</li> <li>• Contractor: Terra Valley</li> <li>• Bid Price: \$162,287</li> <li>• Final Price: \$149,195</li> <li>• Completed September 2015 – Waiting on ODOT to perform audit</li> </ul>	<p>E. Pine Street Reconstruction</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: September 2015</li> <li>• Estimate: \$440,000</li> <li>• Contractor: Terra Valley</li> <li>• Bid Price: \$403,740</li> <li>• Under Construction</li> <li>• Completion Date is May 2016</li> </ul>
<p>Vinton Woods/Tanglewood Concrete Repairs</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$148,000</li> <li>• Contractor: D.L. Smith Concrete</li> <li>• Bid Price: \$106,000</li> <li>• Final Price: \$135,950</li> <li>• Completed September 2015</li> </ul>	<p>WAY – E. Liberty/Pittsburgh Avenue Resurfacing</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: ODOT</li> <li>• Bid Date: December 2014</li> <li>• Estimate: \$450,000</li> <li>• Contractor: Kokosing</li> <li>• Bid Price: \$396,203</li> <li>• Final Price: \$379,093</li> <li>• Completed December 2015 – Waiting on ODOT to perform audit</li> </ul>	<p>E. Bowman &amp; Long Road Resurfacing</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: August 2015</li> <li>• Estimate: \$565,000</li> <li>• Contractor: Karvo Paving</li> <li>• Bid Price: \$584,911</li> <li>• Completed October 2015</li> <li>• Final payment paperwork has not been submitted</li> </ul>
<p>Traffic Signal Replacement Cleveland/Highland Bever/Bowman</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: November 2015</li> <li>• Estimate: \$300,000</li> <li>• Contractor: Perram Electric</li> <li>• Bid Price: \$254,110</li> <li>• Under Construction</li> <li>• Completion Date is July 2016</li> </ul>	<p>Columbus Gateway</p> <ul style="list-style-type: none"> <li>• Designed: OHM</li> <li>• Bid Date: October 2015</li> <li>• Estimate: \$218,299</li> <li>• Contractor: Stout Excavating</li> <li>• Bid Price: \$261,495</li> <li>• Under Construction</li> <li>• Completion Date is May 2016</li> </ul>	<p>2015 Primary Street Paving</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: April 2015</li> <li>• Estimate: \$219,600</li> <li>• Contractor: Barbicas</li> <li>• Bid Price: \$192,516</li> <li>• Completed May 2015</li> <li>• Final Price: \$214,140</li> </ul>

## 2015 Projects Under Construction

### **WATER PROJECTS**

(9 projects - \$5,447,805 Estimated Construction Costs)

<p><b>North High Tank</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: April 2014</li> <li>• Estimate: \$3,900,000</li> <li>• Contractor: CB&amp;I</li> <li>• Bid Price: \$3,066,000</li> <li>• Completed October 2015 – Final paperwork not completed</li> </ul>	<p><b>First Farm Waterline-Contract B</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: CDBG</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$411,915</li> <li>• Contractor: Lockhart</li> <li>• Bid Price: \$444,031</li> <li>• Final Price: \$442,233</li> <li>• Completed September 2015 – Still waiting for contractor to submit final pay request</li> </ul>	<p><b>Norman Waterline</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: January 2015</li> <li>• Estimate: \$106,000</li> <li>• Contractor: Stout Exc.</li> <li>• Bid Price: \$85,299</li> <li>• Final Price: \$104,887</li> <li>• Completed April 2015</li> </ul>
<p><b>Westridge Waterline</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$95,000</li> <li>• Contractor: Terra Valley Excavating</li> <li>• Bid Price: \$84,252</li> <li>• Final Price: \$88,920</li> <li>• Completed August 2015</li> </ul>	<p><b>Melrose Booster Station</b></p> <ul style="list-style-type: none"> <li>• Designed: GGJ</li> <li>• Bid Date: May 2015</li> <li>• Estimate: \$600,000</li> <li>• Contractor: Bogner Construction</li> <li>• Bid Price: \$341,090</li> <li>• Substantially completed in November 2015, telemetry connection is still being worked on</li> </ul>	<p><b>Winter Tank Demolition</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Proposal Date: April 2015</li> <li>• Estimate: \$25,000</li> <li>• Contractor: Iseler Demolition</li> <li>• Proposal Price: \$24,760</li> <li>• Final Price: \$24,760</li> <li>• Completion: December 2015</li> </ul>
<p><b>Secondary Transmission Line – Contract A (Northwestern, Woodland and Rosa Parks)</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: OPWC</li> <li>• Bid Date: August 2015</li> <li>• Estimate: \$650,000</li> <li>• Contractor: Simonson Construction</li> <li>• Bid Price: \$649,873</li> <li>• Under Construction</li> <li>• Completion Date is July 31, 2016</li> </ul>	<p><b>Secondary Transmission Line – Contract B (Christmas Run Pool, Forest and Pearl)</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: OPWC</li> <li>• Bid Date: August 2015</li> <li>• Estimate: \$460,000</li> <li>• Contractor: Dirt Dawg Excavating</li> <li>• Bid Price: \$486,760</li> <li>• Under Construction</li> <li>• Completion Date is July 31, 2016</li> </ul>	<p><b>Ihrig Avenue and Sherman Drive Waterline</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: December 2015</li> <li>• Estimate: \$320,000</li> <li>• Contractor: Fioritto Construction</li> <li>• Bid Price: \$265,740</li> <li>• Completion Date is May 31, 2016</li> </ul>

## 2015 Projects Under Construction

### **SANITARY PROJECTS**

(4 projects - \$5,971,085 Estimated Construction Costs)

<p><b>WRRF – Liquid Stream</b></p> <ul style="list-style-type: none"> <li>• Designed: URS</li> <li>• Funding: OPWC</li> <li>• Bid Date: September 2014</li> <li>• Estimate: \$4,840,000</li> <li>• Contractor: Kirk Brothers</li> <li>• Bid Price: \$3,817,000</li> <li>• Under Construction</li> <li>• Completion Date: March 2016</li> </ul>	<p><b>First Farm Sanitary-Contract A</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Funding: CDBG</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$371,085</li> <li>• Contractor: Terra Valley</li> <li>• Bid Price: \$276,886</li> <li>• Final Price: \$281,585</li> <li>• Completed September 2015</li> </ul>	<p><b>WRRF to WTP Electric Line</b></p> <ul style="list-style-type: none"> <li>• Estimate: \$260,000</li> <li>• Contractor: Quasar</li> <li>• Bid Price: \$260,000</li> <li>• Final Price: \$262,275</li> <li>• Completed August 2015</li> <li>• Provides electric to both plants created from WRRF</li> </ul>
<p><b>Melrose Sanitary Interceptor</b></p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: February 2015</li> <li>• Estimate: \$500,000</li> <li>• Contractor: Terra Valley</li> <li>• Bid Price: \$361,811</li> <li>• Final Price: \$357,140</li> <li>• Completed September 2015</li> </ul>		

## 2015 Projects Under Construction

### **MISCELLANEOUS PROJECTS** (7 projects - \$8,273,486 Estimated Construction Costs)

<p>Christmas Run Playground – Contract A</p> <ul style="list-style-type: none"> <li>• Designed: Wooster Engineering</li> <li>• Funding: Donations/City</li> <li>• Bid Date: September 2015</li> <li>• Estimate: \$339,600</li> <li>• Contractor: Bogner Construction</li> <li>• Bid Price: \$130,00</li> <li>• Under Construction</li> <li>• Completion Date: April 2016</li> </ul>	<p>Christmas Run Playground – Contract B</p> <ul style="list-style-type: none"> <li>• Designed: OHM</li> <li>• Funding: Donations/City</li> <li>• Bid Date: September 2015</li> <li>• Estimate: \$339,600</li> <li>• Contractor: Landscape Structures</li> <li>• Bid Price: \$257,797</li> <li>• Under Construction</li> <li>• Completion Date: April 2016</li> </ul>	<p>Fire Station #3</p> <ul style="list-style-type: none"> <li>• Designed: Sol Harris Day</li> <li>• Estimate: \$400,000</li> <li>• Contractor: CCI Commercial</li> <li>• Bid Price: \$439,379</li> <li>• Under Construction</li> <li>• Completion Date is March 2016</li> </ul>
<p>WARCOG</p> <ul style="list-style-type: none"> <li>• Designed: Sol Harris Day</li> <li>• Bid Date: November 2015</li> <li>• Estimate: \$310,000</li> <li>• Contractor: Simonson Construction</li> <li>• Bid Price: \$341,000</li> <li>• Under Construction</li> <li>• Completion Date: March 2016</li> </ul>	<p>Safety Center</p> <ul style="list-style-type: none"> <li>• Architect: Bowden &amp; Associates</li> <li>• Construction Management: John G. Johnson Construction Company</li> <li>• Estimate: \$7,000,000</li> </ul>	<p>Layton Communication Tower</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Bid Date: May 2015</li> <li>• Estimate: \$60,000</li> <li>• Contractor: CFE Construction</li> <li>• Bid Price: \$47,160</li> <li>• Final Price: \$33,776</li> <li>• Completed August 2015</li> </ul>
<p>Winter Tank – Site Work</p> <ul style="list-style-type: none"> <li>• Designed: Engineering Division</li> <li>• Proposal Date: April 2015</li> <li>• Estimate: \$50,000</li> <li>• Contractor: Dirt Dawg</li> <li>• Proposal Price: \$58,150</li> <li>• Final Price: \$58,150</li> <li>• Completion Date: November 2015</li> </ul>		

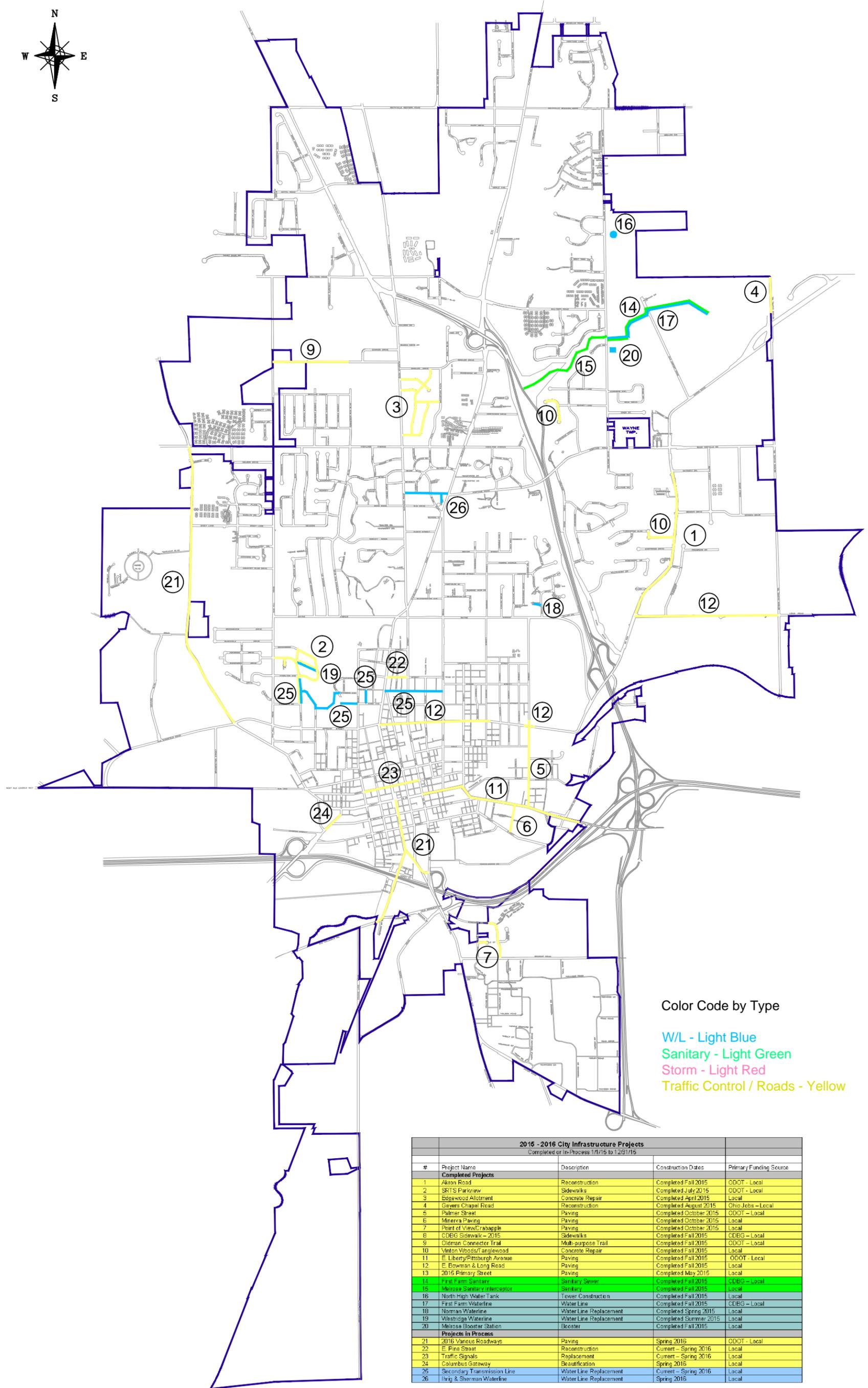
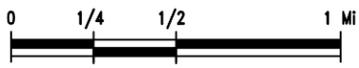
## **INFRASTRUCTURE PROJECTS SCHEDULED/PLANNED FOR 2016:**

1. **SRTS – Ashwood Sidewalk:** The Division is applying for ODOT funding to complete the sidewalks in the Parkview Elementary area along Ashwood. The estimate is \$300,000 with the plans being currently developed. If funding is awarded the project would be started in the 2018 construction season.
2. **SRTS –Sunset/Armstrong Sidewalk:** The Division is applying for ODOT funding to complete the sidewalks in the Melrose Elementary area. Plans will be developed if funding is awarded with a construction date of 2019.
3. **Christmas Run Park Volleyball/Basketball:** The City of Wooster has obtained funding from ODNR to construct a volleyball court and a basketball court in Christmas Run Park where the pond was. The pond was drained and filled in 2015 in anticipation of beginning this project spring of 2016. The Engineering Division will be developing the plans.
4. **Akron Road Industrial Park Road – Phase 1:** This project consists of construction of a new road east of LuK facility to accommodate current and future needs in the industrial park. The project is being partially funded by Ohio Jobs and is being designed by the Engineering Associates, Inc.
5. **Downtown Streetscape:** Preliminary design concepts are being provided by OHM for updating the downtown streetscape. Construction of Phase 1 is planned for 2017.
6. **North Street Traffic Signals:** This project consists of the replacement of traffic signals along North Street at the following intersections: Grant, Walnut, Market and Bever. The project is being designed by Poggemyer Group. Funding has been obtained from CDBG in the amount of \$402,000.
7. **Milltown Water Tank Painting:** This project consists of blasting and repainting the interior and exterior of the 250,000 gallon Milltown water tank. This project was designed by the Engineering Division. The Division will be coordinating the Stripper Tower Painting with this tank project.
8. **Wooster Bike Loop – Phase 1:** This is a 2.1 mile construction of a dedicated 10' wide multi-use path for non-motorized transportation connecting Oak Hill Park to the downtown district. The project is partially funded by ODOT. Poggemyer Group is in the process of developing the plans and specifications.
9. **North Well Field Check Valve Replacement:** This project is being designed by the Engineering Division and consists of replacing the existing check valve vaults at the City's north well field. Piping will be replaced including all bends. Electric services to each well will also be upgraded.

10. **Oakley Culvert Replacement:** This project is being designed by Engineering Associates. It entails cleaning of the city-owned pond on the north side of Oakley Road, replacing the outlet structure in the pond, and replacing the overflow culvert under Oakley Road.
11. **Culvert Replacements:** Roadway culvert replacements or rehabilitations are scheduled for locations on Silver Road, Melrose Drive, Geyers Chapel Road, Mechanicsburg Road and the Dix Expressway. These will be designed by the Engineering Division.
12. **Northview Drive Waterline Replacement:** This project is being designed by the Engineering Division and consists of replacing water mains and services on Northview Drive. The current estimate is \$150,000.
13. **Burbank Road Reconstruction:** This project improving Burbank Road with construction of sidewalks on the east side, a bike trail, curb and gutter and widening of the roadway. The Engineering Division is in the process of developing the plans and construction is planned for 2017. The estimated project cost is \$1,995,000.

# CITY OF WOOSTER

Prepared By: DIVISION OF ENGINEERING



Color Code by Type

- W/L - Light Blue
- Sanitary - Light Green
- Storm - Light Red
- Traffic Control / Roads - Yellow

2015 - 2016 City Infrastructure Projects				
Completed or In-Process 1/1/15 to 12/31/15				
#	Project Name	Description	Construction Dates	Primary Funding Source
<b>Completed Projects</b>				
1	Akron Road	Reconstruction	Completed Fall 2015	ODOT - Local
2	SRTS Parkway	Sidewalks	Completed July 2015	ODOT - Local
3	Edgewood Allotment	Concrete Repair	Completed April 2015	Local
4	Gavers Chapel Road	Reconstruction	Completed August 2015	Ohio Jobs - Local
5	Palmer Street	Paving	Completed October 2015	ODOT - Local
6	Minerva Paving	Paving	Completed October 2015	Local
7	Point of View/Crabapple	Paving	Completed October 2015	Local
8	CDEG Sidewalk - 2015	Sidewalks	Completed Fall 2015	CDEG - Local
9	Oldman Connector Trail	Multi-purpose Trail	Completed Fall 2015	ODOT - Local
10	Vinton Woods/Tanglewood	Concrete Repair	Completed Fall 2015	Local
11	E. Liberty/Pittsburgh Avenue	Paving	Completed Fall 2015	ODOT - Local
12	E. Bowman & Long Road	Paving	Completed Fall 2015	Local
13	2015 Primary Street	Paving	Completed May 2015	Local
14	First Farm Sanitary	Sanitary Sewer	Completed Fall 2015	CDEG - Local
15	Melrose Sanitary Interceptor	Sanitary	Completed Fall 2015	Local
16	North High Water Tank	Tower Construction	Completed Fall 2015	Local
17	First Farm Waterline	Water Line	Completed Fall 2015	CDEG - Local
18	Norman Waterline	Water Line Replacement	Completed Spring 2015	Local
19	Westridge Waterline	Water Line Replacement	Completed Summer 2015	Local
20	Melrose Booster Station	Booster	Completed Fall 2015	Local
<b>Projects In Process</b>				
21	2016 Various Roadways	Paving	Spring 2016	ODOT - Local
22	E. Pine Street	Reconstruction	Current - Spring 2016	Local
23	Traffic Signals	Replacement	Current - Spring 2016	Local
24	Columbus Gateway	Beautification	Spring 2016	Local
25	Secondary Transmission Line	Water Line Replacement	Current - Spring 2016	Local
26	Hrig & Sherman Waterline	Water Line Replacement	Spring 2016	Local

**Private Developments**

**1. Private Subdivisions/Commercial Property under Construction:**

2015 saw an increase in business expansion and commercial development. The City issued 18 development permits which was only slightly higher than the 16 issued in 2014.

Pallota Ford expanded its facilities with close to \$2,000,000 of improvements. LuK, OARDC, Montessori School and the College of Wooster all applied for development permits for additions to their existing facilities. The Daisy Brand Warehouse opened in November.

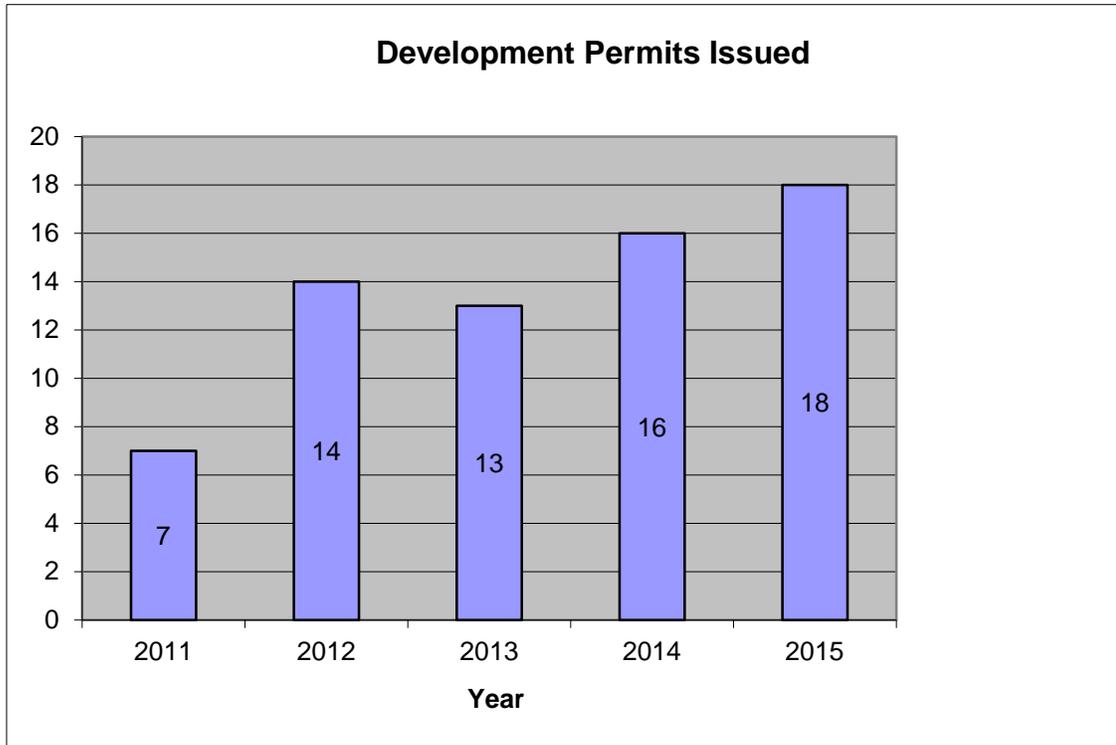
The Shoppes at Burbank will be opening in 2016 bringing T.J. Maxx, Ulta, 5 Guys Burgers and several other businesses to the area. Along with the site improvements the developer was required to improve the roadway with a turning lane and traffic signal.

All private developments required oversight and permit approval from the City Engineering Division for compliance with the Wooster Site Development and Improvement Regulations. The Engineering Division reviews all plans and provided inspection of all these developments.

**2. Subdivision Plan Review Table:** The table below lists all subdivisions and developments submitted for review in 2015.

City of Wooster Engineering Development Permits						2015
DEVELOP. #	PERMIT NO.	PROJECT NO.	NAME / DESCRIPTION	SITE IMP.S COST ESTIMATE	PLAN REVIEW FEE	DATE RECEIVED
1	2015001	#143051	Pallota Ford	\$1,965,000	\$ 3,688.30	01/09/15
2	2015002	#143052	Tartan Ridge Phase 2	\$75,000	\$ 1,985.00	1/16/2015
3	2015003	#132068	Telecommunications Facility	\$150,000	\$ -	01/23/15
4	2015004	#143059	Independent Living Apartments	\$228,780	\$ 3,260.50	03/23/15
5	2015005	#153021	Jankov Property	\$10,000	\$ 330.00	06/04/15
6	2015006	#142041	Shoppes on Burbank	\$1,500,000	\$ 9,564.30	06/08/15
7	2015007	#153022	Wayne Cty. Historical Society	\$85,000	\$ 991.00	06/16/15
8	2015008	#153023	LUK	\$404,000	\$ 2,295.00	06/22/15
9	2015009	#153026	OARDC	\$515,000	\$ 930.00	07/10/15
10	2015010	#142041	Signal Improvements	\$517,342	\$ 2,716.00	07/20/15
11	2015011	#153025	Montessori School	\$50,000	\$ 2,014.00	07/23/15
12	2015012	#153031	Danbury Phase 2	\$100,000	\$ 2,572.00	08/13/15
13	2015013	#153032	LUK	\$20,000	\$ 2,585.00	08/24/15
14	2015014		Larwill Trailer Park		\$ -	09/17/15
15	2015015	#153036	COW - Brush Hall	\$45,000	\$ 821.40	10/05/15
16	2015016	#153038	Wooster Growth - 3690 Long Road	\$20,000	\$ 1,166.00	11/03/15
17	2015017	#153039	Daisy Waste Water Pretreatment	\$3,000,000	\$ 980.00	11/10/15
18	2015018	#153045	439 Market Street N. Parking	\$10,000	\$ 179.50	12/30/15

\$ 8,695,122.00 \$ 26,634.70



**ENGINEERING FEES AND REVENUES :**

The following chart details the revenues received the past few years by the Division of Engineering.

	2012	2013	2014	2015
Single Inspection	\$11,470.00	\$21,338.26	\$10,478.20	\$19,800.00
Construction Inspection	\$37,491.43	\$50,476.60	\$114,642.28	\$58,105.03
Plan Review Fee	\$17,320.00	\$14,160.00	\$10,480.00	\$12,960.00
Plan Copies	\$4,204.50	\$4,634.54	\$4,213.25	\$5,489.15
Yard Pipe Permit	\$0.00	\$160.00	\$0.00	\$160.00
Sanitary Sewer Permit	\$6,960.00	\$480.00	\$480.00	\$960.00
San. Sewer Availability Charge	\$44,586.00	\$25,740.00	\$7,584.00	\$47,746.56
Water Availability	\$36,768.80	\$25,461.00	\$704.00	\$50,300.80
Water Service Permit	\$960.00	\$1,400.00	\$640.00	\$800.00
Development Permit Waiver	\$0.00	\$0.00	\$0.00	\$0.00
<b>TOTAL FEES COLLECTED</b>	<b>\$159,760.73</b>	<b>\$143,850.40</b>	<b>\$149,221.73</b>	<b>\$196,321.54</b>

<b>Permissive Tax Revenue:</b>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
	<b>\$94,029.20</b>	<b>\$101,243.42</b>	<b>\$102,382.20</b>	<b>\$120,467.41</b>

Permissive tax revenue represents the portion of the state vehicle license tax received by the city. These funds are released to the city based on roadway construction expenditures for projects managed by the Division of Engineering. The Division requests disbursement of these funds on a bi-monthly basis. The total funds requested and released from 1969 to October 2015 is \$4,222,951.87.

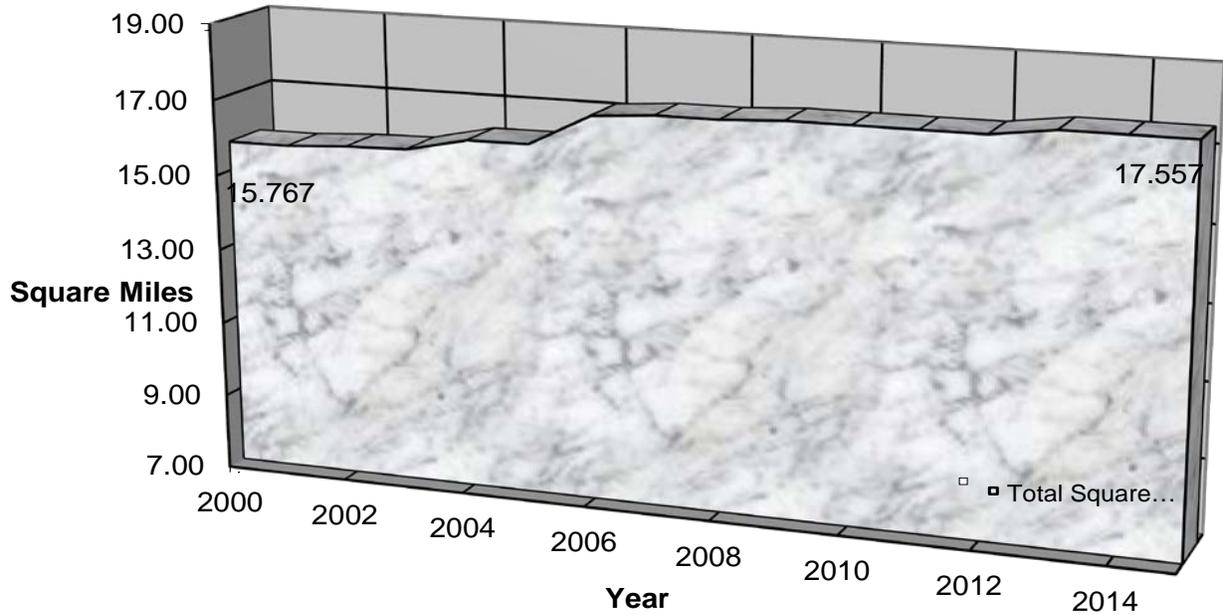
**ODOT Reimbursement: \$ 1,629,617.36**

The Engineering Division requests reimbursement from ODOT for construction costs and construction engineering costs on ODOT funded projects. The City had eight roadway projects that had reimbursable costs in 2015. ODOT funding amounting to over \$820,000 is still outstanding for projects that will be finalized in 2016.

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**City Growth Statistics – Section 2**

## City Growth Total City Area



### City Growth Information

Year	City Population	City Area	City Streets
1990	22,427 (a)	12.8222 Sq. Mi.	106.42 Miles
2000	24,811 (a)	15.767 Sq. Mi.	120.41 Miles
2010	26,119 (a)	17.334 Sq. Mi	133.10 Miles
2011	26,397 (b)	17.334 Sq. Mi	133.10 Miles
2012	26,677 (b)	17.336 Sq. Mi	133.10 Miles
2013	26,961 (b)	17.557 Sq. MI	133.78 Miles
2014	27,247 (b)	17.557 Sq. MI	133.78 Miles
2015	27,537 (b)	17.557 Sq. MI	133.78 Miles

### 2015 Annexations

No.	Description	Date	Area
	NONE		

## City Area Statistics

City Area				
Year	Increases (Acres)	Total Acres	Total Square Miles	% Increase
1965	0.000	4,966.400	7.760	0.000
1966	648.890	5,615.290	8.774	13.066
1967	0.000	5,615.290	8.774	0.000
1968	0.000	5,615.290	8.774	0.000
1969	331.550	5,946.840	9.292	5.904
1970	62.470	6,009.310	9.390	1.050
1971	0.000	6,009.310	9.390	0.000
1972	181.810	6,191.120	9.674	3.025
1973	54.380	6,245.500	9.759	0.878
1974	173.858	6,419.358	10.030	2.784
1975	4.000	6,423.358	10.036	0.062
1976	19.532	6,442.890	10.067	0.304
1977	25.032	6,467.922	10.106	0.389
1978	79.990	6,547.912	10.231	1.237
1979	56.819	6,604.731	10.320	0.868
1980	3.000	6,607.731	10.325	0.045
1981	135.195	6,742.926	10.536	2.046
1982	2.730	6,745.656	10.540	0.040
1983	47.046	6,792.702	10.614	0.697
1984	148.203	6,940.905	10.845	2.182
1985	0.000	6,940.905	10.845	0.000
1986	45.319	6,986.224	10.916	0.653
1987	0.000	6,986.224	10.916	0.000
1988	187.711	7,173.935	11.209	2.687
1989	1,031.835	8,205.770	12.822	14.383
1990	0.000	8,205.770	12.822	0.000
1991	541.763	8,747.533	13.668	6.602
1992	166.072	8,913.605	13.928	1.899
1993	160.949	9,074.554	14.179	1.806
1994	1.080	9,075.634	14.181	0.012
1995	0.000	9,075.634	14.181	0.000
1996	23.626	9,099.260	14.218	0.260
1997	123.047	9,222.307	14.410	1.352
1998	40.564	9,262.871	14.473	0.440
1999	610.865	9,873.736	15.428	6.595
2000	217.389	10,091.125	15.767	2.202
2001	2.781	10,093.906	15.772	0.028
2002	64.491	10,158.397	15.872	0.639
2003	24.120	10,182.517	15.910	0.237
2004	226.640	10,409.157	16.264	2.226
2005	11.090	10,420.247	16.282	0.107
2006	537.062	10,957.309	17.121	5.154
2007	78.780	11,036.089	17.244	0.719
2008	0.000	11,036.089	17.244	0.000
2009	57.450	11,093.539	17.334	0.521
2010	0.000	11,093.539	17.334	0.000
2011	0.000	11,093.539	17.334	0.000
2012	1.61	11,095.149	17.336	0.015
2013	141.202	11,236.351	17.557	1.273
2014	0	11,236.351	17.557	0.000
2015	0	11,236.351	17.557	0.000

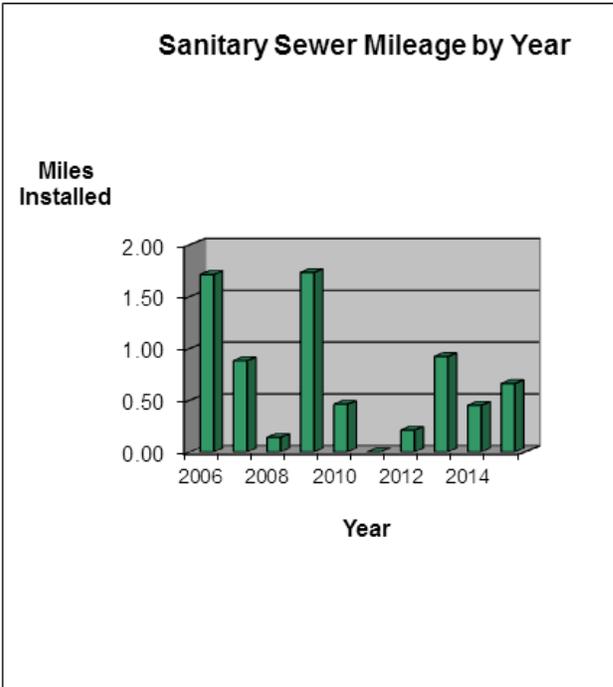
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City of Wooster  
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**Utility Statistics – Section 3**

# Sanitary Sewer Mileage

## Sanitary Sewer Mileage

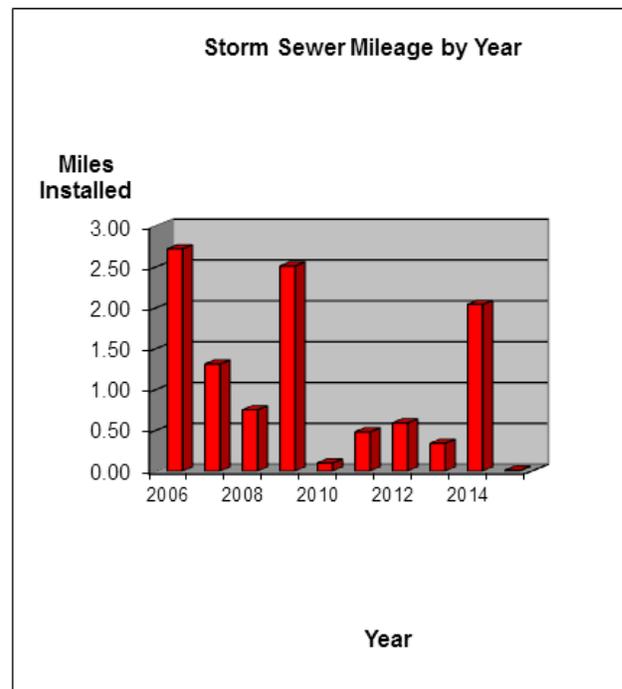
Year	Increase in Miles	Total Miles	% Increase
		114.85	
2006	1.71	116.56	1.49%
2007	0.88	117.44	0.75%
2008	0.14	117.58	0.12%
2009	1.73	119.31	1.47%
2010	0.46	119.77	0.39%
2011	0.00	119.77	0.00%
2012	0.21	119.98	0.18%
2013	0.92	120.90	0.77%
2014	0.45	121.35	0.37%
2015	0.66	122.01	0.54%



# Storm Sewer Mileage

## Storm Sewer Mileage

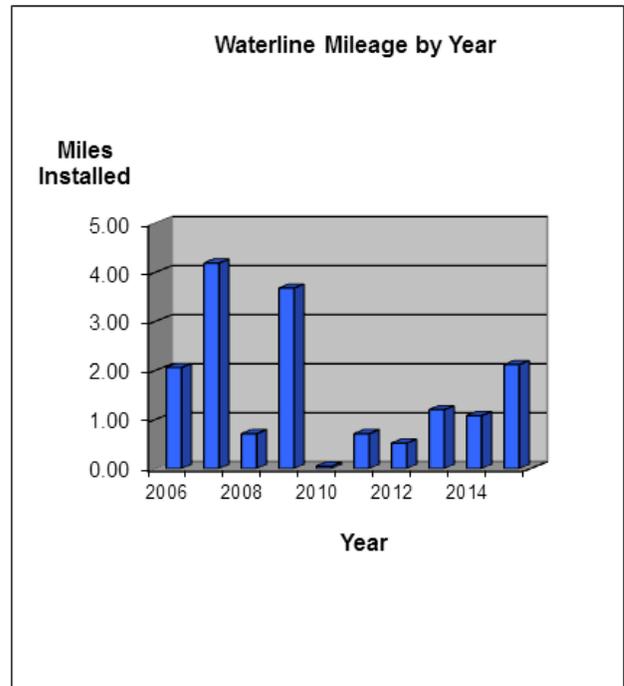
Year	Increase in Miles	Total Mileage	% Increase
		111.60	
2006	2.72	114.32	2.44%
2007	1.31	115.63	1.15%
2008	0.75	116.38	0.65%
2009	2.51	118.89	2.16%
2010	0.10	118.99	0.08%
2011	0.48	119.47	0.40%
2012	0.59	120.06	0.49%
2013	0.34	120.40	0.28%
2014	2.04	122.44	1.69%
2015	0.01	122.45	0.01%



# Waterline Mileage

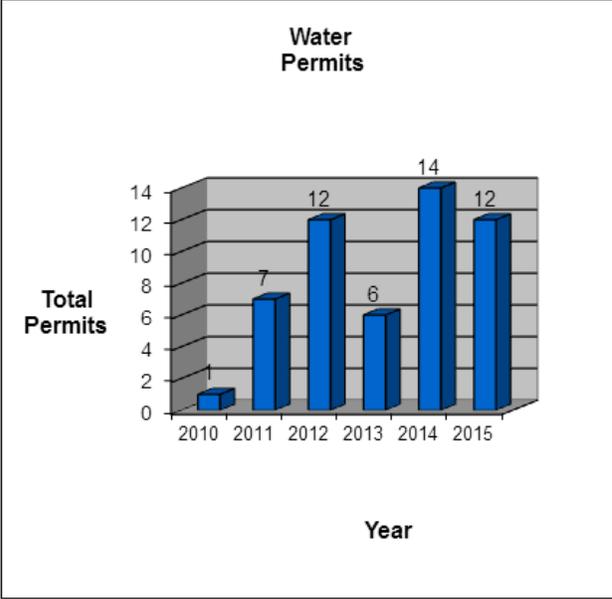
## Waterline Mileage

Year	Increase in Miles	Total Miles	% Increase
		122.39	
2006	2.06	124.45	1.68%
2007	4.19	128.64	3.37%
2008	0.71	129.35	0.55%
2009	3.68	133.03	2.84%
2010	0.05	133.08	0.04%
2011	0.71	133.79	0.53%
2012	0.52	134.31	0.39%
2013	1.20	135.51	0.89%
2014	1.08	136.59	0.80%
2015	2.12	138.71	1.55%

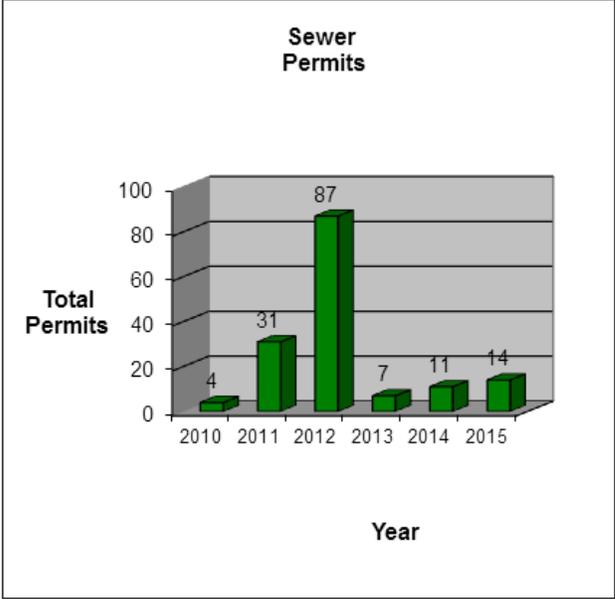


# 2015 Permits

### Water Permits

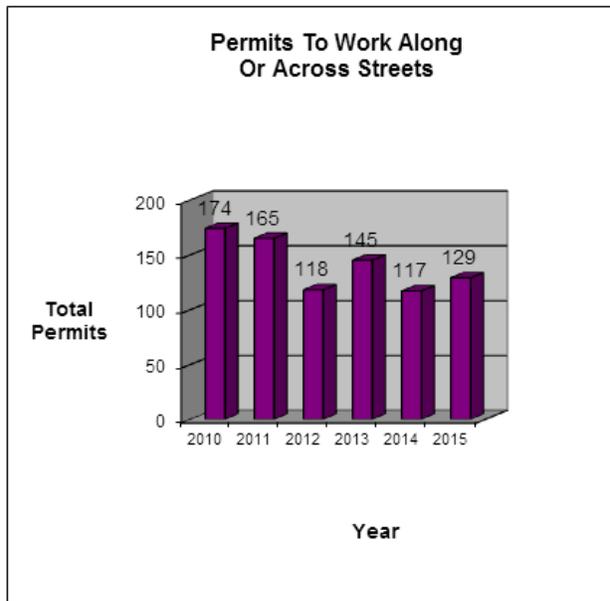


### Sewer Permits

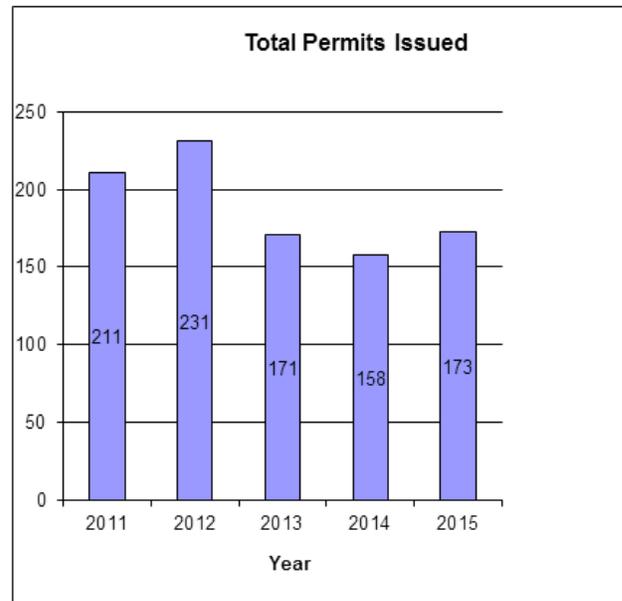


Water and Sewer Permits remain fairly level throughout the years. Permits are issued for these utilities for any new development or whenever the need for a replacement or repair becomes necessary to a homeowner or business. Our inspectors are on site to make sure the contractor follows the City's Standards and help the contractor with any questions or problems that might arise during the project. The increase in 2012 sewer permits is due to the connection of the homes in the Batdorf Road area to the City's sewer system as mandated by EPA.

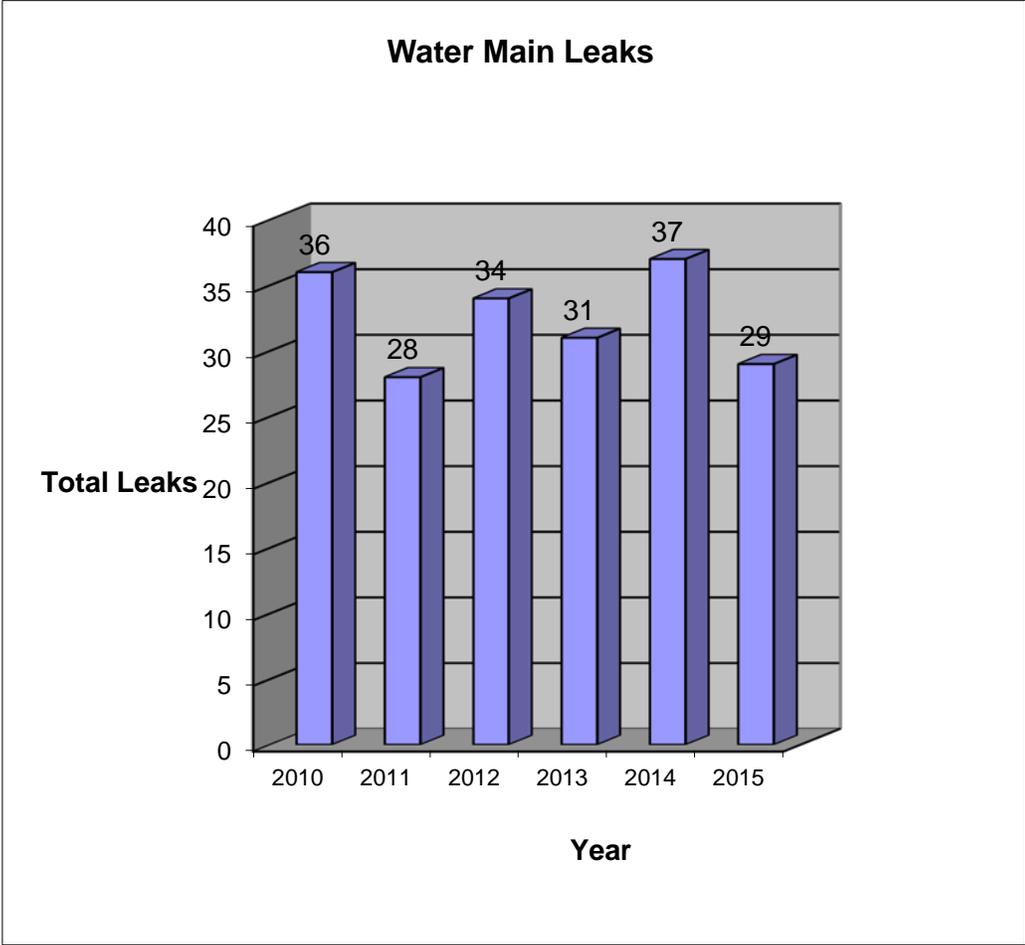
## Right-of-Way Permits



## Total Permits Issued - 2015

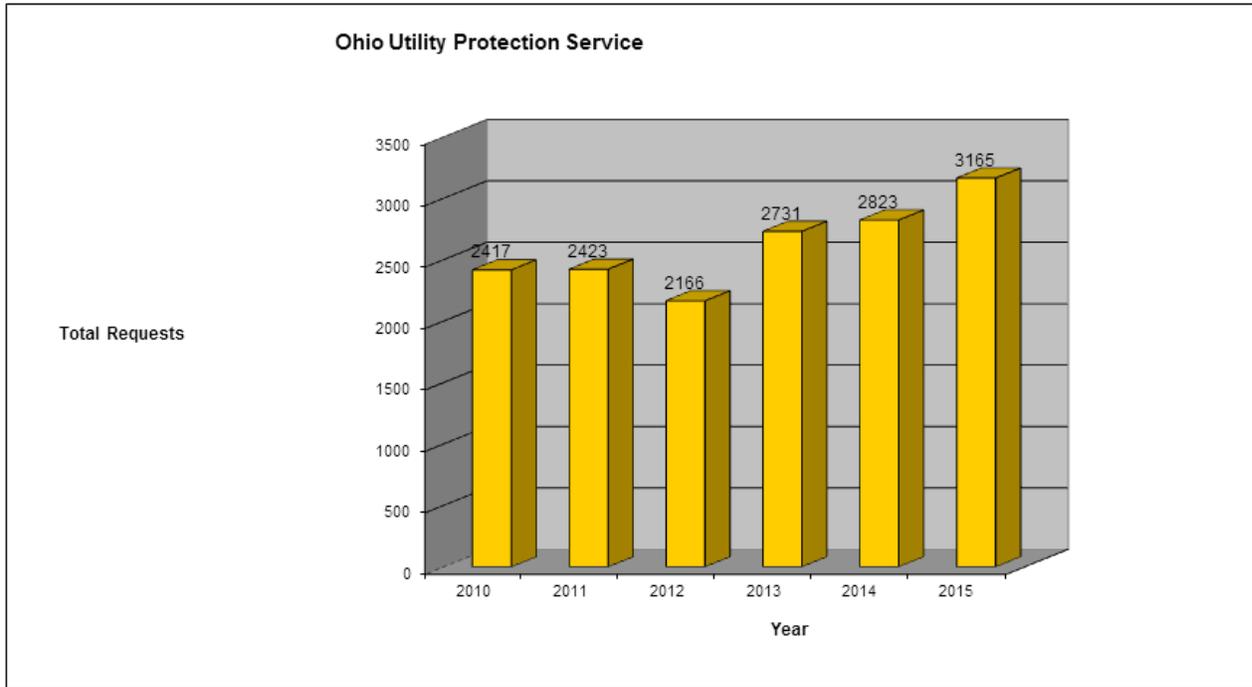


Dominion East Ohio Gas continues to be the primary company obtaining Right-of Way Permits. The company is in the process of improving their infrastructure throughout the city and replacing their main lines. Right of way permits are required anytime there will be work along the City's streets and/or across the street. This ensures that the City can monitor restoration of the area after the contractor has completed the project.



Water line breaks remain consistent. The City currently has over 138 miles of waterline to maintain. The Engineering Division is developing plans for the waterline on Northview Drive in 2016.

# 2015 OUPS Notices



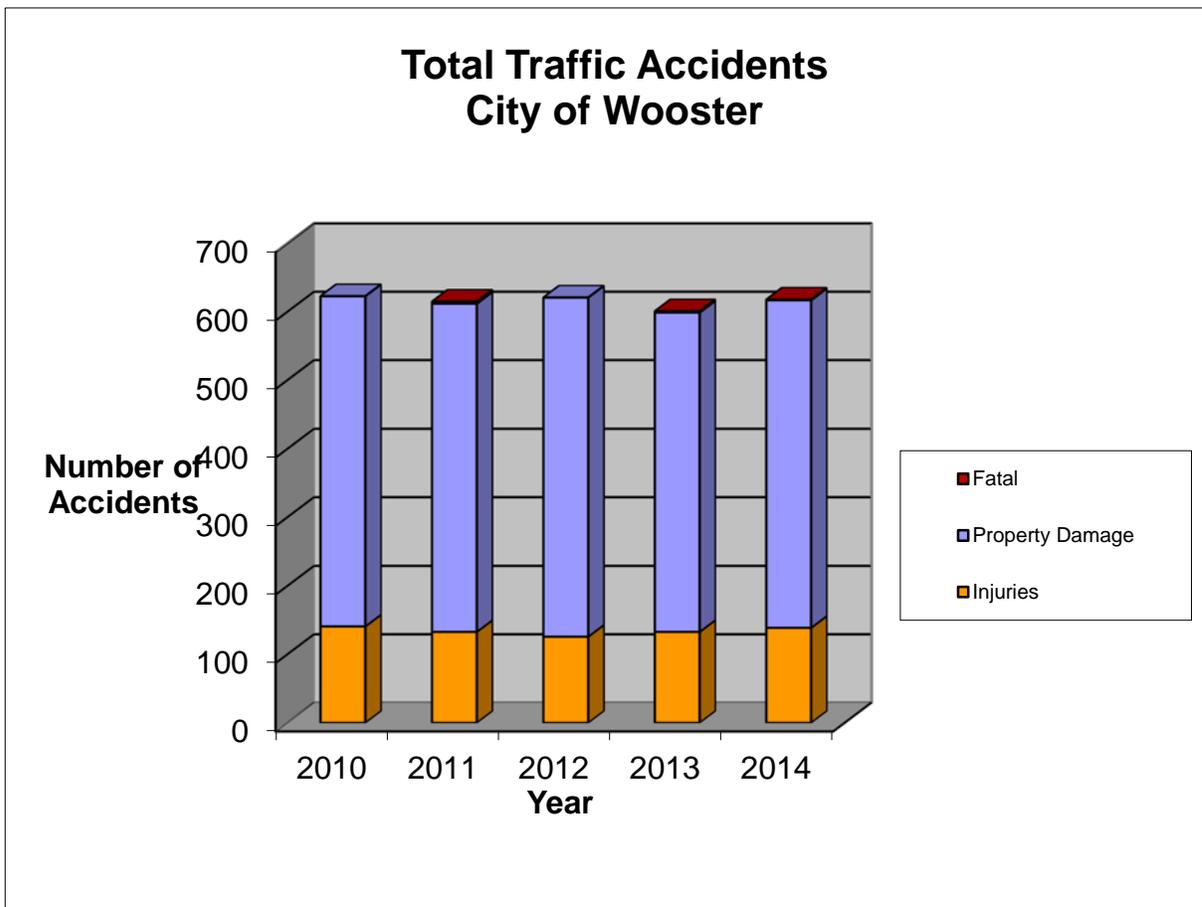
OUPS location notices continue to increase as more and more contractors and residents call 811 to notify the Ohio Utilities Protection Agency of anticipated digging. Our inspector marks the requests within 48 hours of receiving the notice if any of the city’s utilities would be affected by the excavation. Our inspector is also responsible for emergency OUPS locations such as water line breaks or gas line ruptures. Each notification is also recorded in the WEBTMS software which tracks the notifications and the positive response (outcome) for each ticket.

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**Traffic Statistics – Section 4**

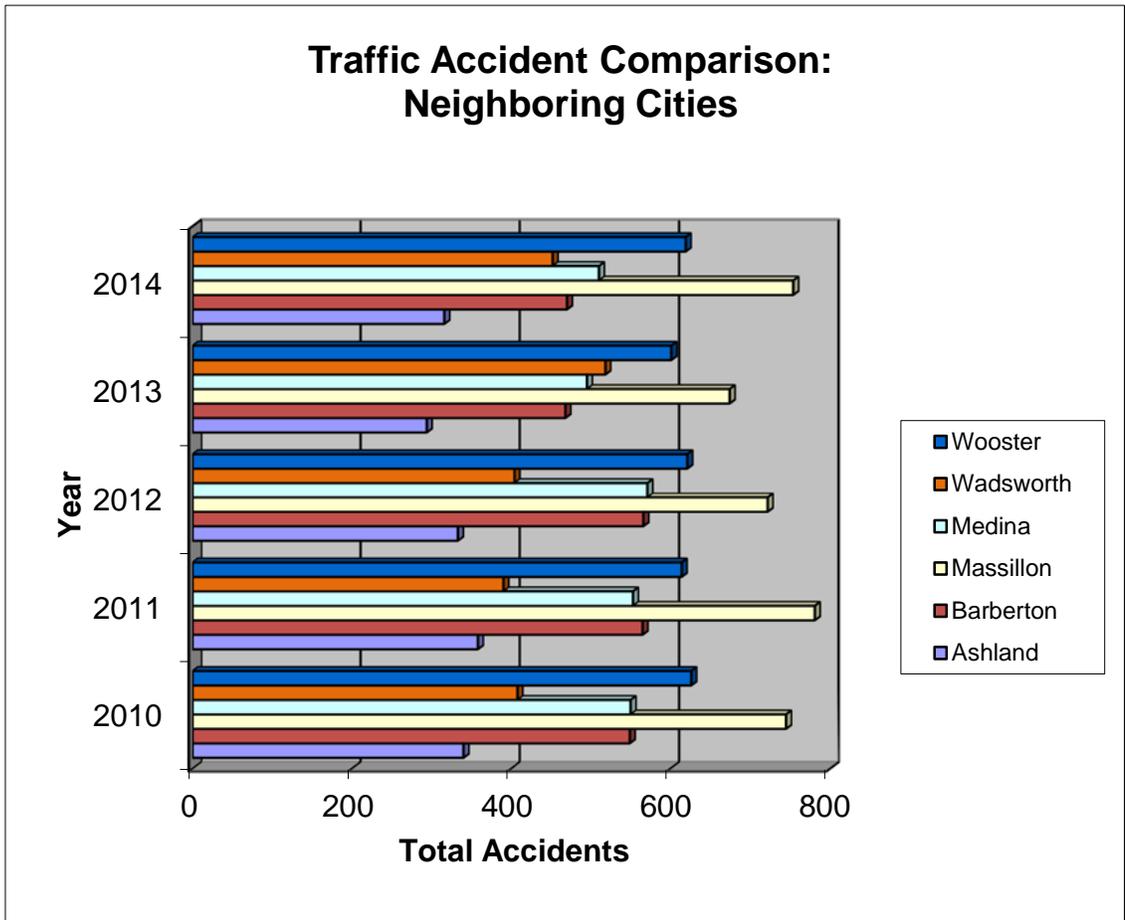
**City of Wooster**  
**Traffic Accidents**

Year	Injuries	Property Damage	Fatal
2010	141	482	
2011	133	479	3
2012	126	495	
2013	133	466	2
2014	139	478	1



**Traffic Accident Comparison**  
**Totals By Neighboring Cities**

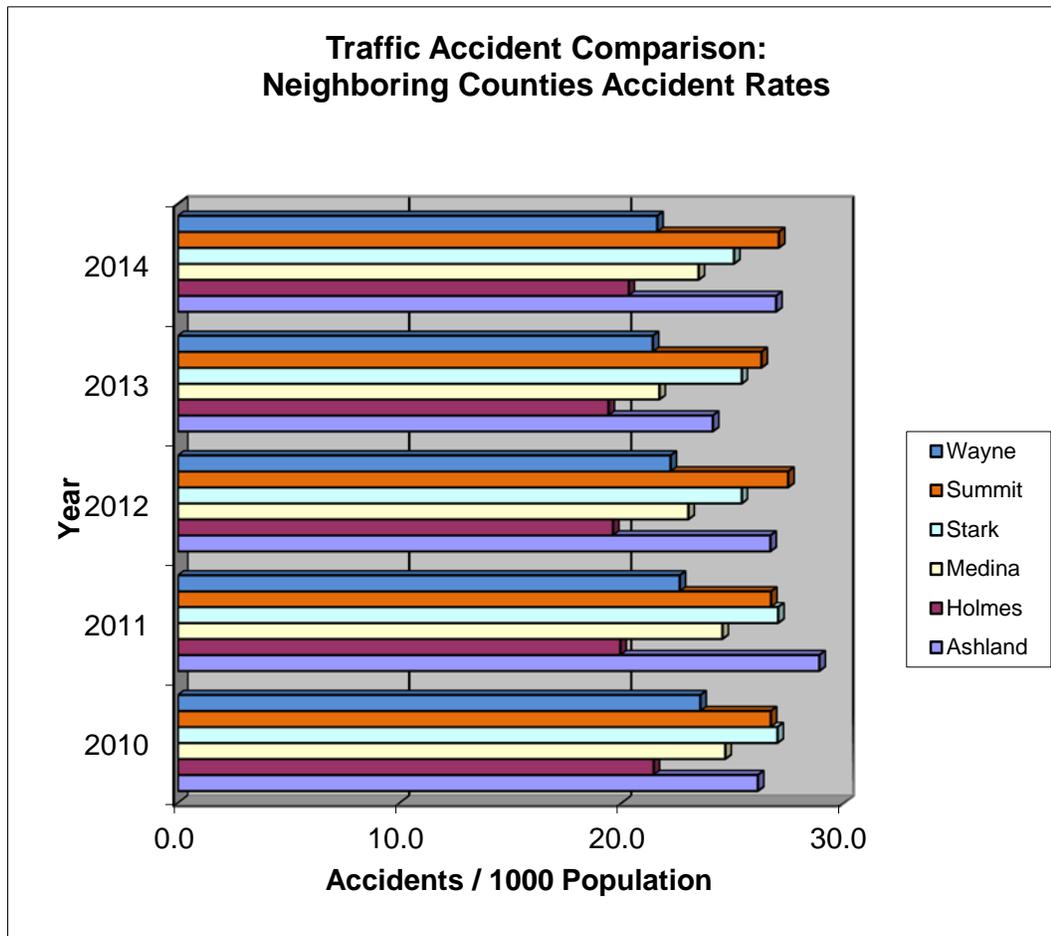
Year	Ashland	Barberton	Massillon	Medina	Wadsworth	Wooster
2010	340	549	745	550	408	626
2011	358	565	781	553	390	614
2012	333	566	722	571	404	621
2013	294	468	674	495	518	601
2014	316	470	754	510	452	619



**Traffic Accident Comparison**  
**Rates by Neighboring Counties**

Accidents Per 1000 People

Year	Ashland	Holmes	Medina	Stark	Summit	Wayne
2010	26.1	21.4	24.7	27.0	26.7	23.5
2011	28.9	19.9	24.5	27.1	26.7	22.6
2012	26.7	19.6	23	25.4	27.5	22.2
2013	24.1	19.4	21.7	25.4	26.3	21.4
2014	26.96	20.31	23.46	25.05	27.08	21.6



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**Engineering Design Statistics – Section 5**

**DIVISION OF ENGINEERING**  
**2015 Project Summary**  
**(Projects Designed or Constructed in 2015)**

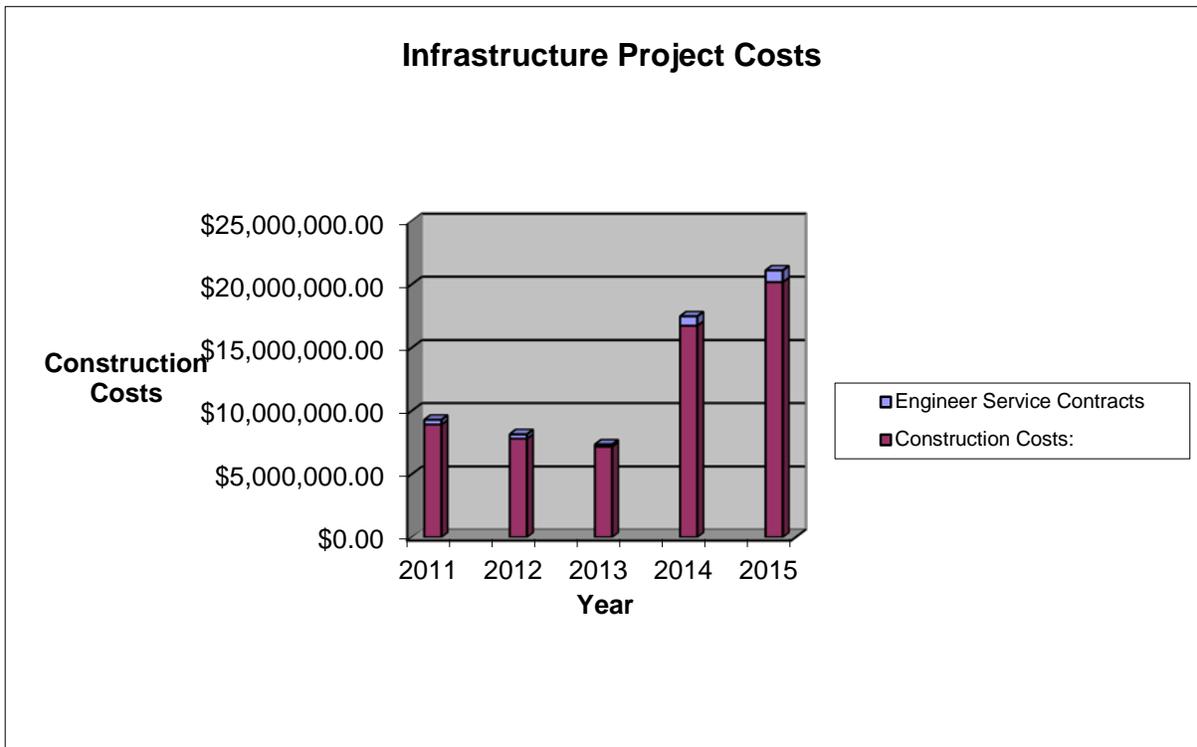
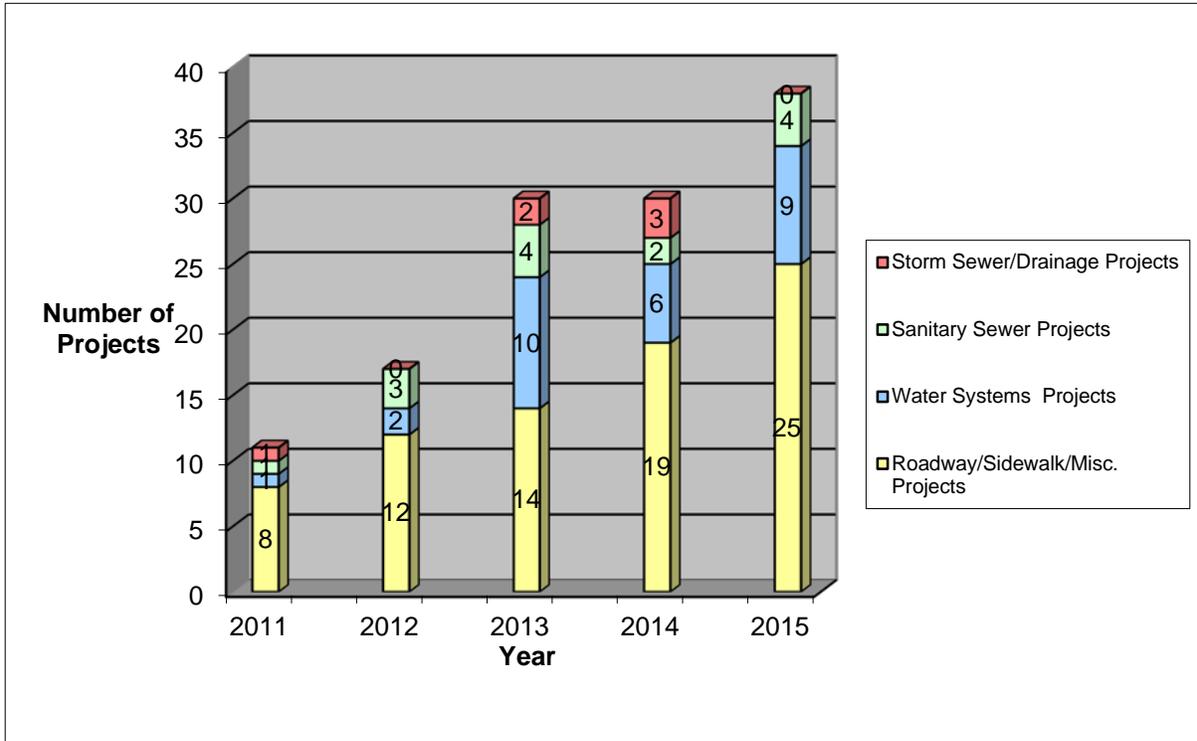
PROJECT	DESIGNER/CONSULTANT	DESIGN COST	CONTRACTOR	ESTIMATED CONST. COST	BID PRICE	FINAL COST	Contract Balance	% Complete	Retainage
North High Water Tank	Wooster Engineering	\$16,700	CB&I	\$3,900,000	\$3,066,000	UC	\$85,663	98%	\$123,128
First Farm Waterline Contract B	Wooster Engineering		Lockhart	\$411,915	\$444,031	\$442,233	\$0	100%	
Norman Waterline	Wooster Engineering		Stout	\$106,000	\$85,299	\$104,887	\$0	100%	\$0
Westridge Waterline	Wooster Engineering		Terra Valley	\$95,000	\$84,252	\$88,920	\$0	100%	\$0
Melrose Booster Station	GGJ	\$64,550	Bogner Construction	\$600,000	\$341,090	UC	\$24,020	90%	\$13,211
Winter Tank Demolition	Wooster Engineering		Iseler Demolition	\$25,000	\$24,760	\$24,760	\$0	100%	\$0
Winter Tank Demolition	Wooster Engineering		Dirt Dawg	\$50,000	\$58,150	\$58,150	\$0	100%	\$0
Secondary Transmission Contract A	Wooster Engineering		Simonson Construction	\$650,000	\$649,873	UC	\$245,292	66%	\$25,995
Secondary Transmission Contract B	Wooster Engineering		Dirt Dawg	\$460,000	\$486,760	UC	\$212,881	44%	\$18,511
Ihrig & Sherman Waterline	Wooster Engineering		Fioritto Construction	\$320,000	\$265,740	UC	\$265,740	0%	
WRRF - Liquid Stream	URS	\$225,000	Kirk Brothers	\$4,840,000	\$3,817,000	UC	\$1,596,186	60%	\$159,299
First Farm Sanitary Contract A	Wooster Engineering		Terra Valley	\$371,085	\$276,886	\$281,585	\$0	100%	\$0
Melrose Sanitary Interceptor	Wooster Engineering		Terra Valley	\$500,000	\$361,811	\$357,140	\$0	100%	\$0
Quasar Electric Line	Wooster Engineering	\$3,520	Quasar	\$260,000	\$260,000	\$262,275		100%	\$0
Akron Rd - Phase 2	Engineering Associates	\$385,000	Wenger	\$3,100,000	\$3,077,862	UC	\$255,160	100%	\$125,292
SRTS - ODOT - Parkview	Wooster Engineering		Terra Valley	\$281,000	\$320,142	UC	\$67,052	80%	\$12,806
Edgewood Allotment	Wooster Engineering		Smith Paving	\$190,000	\$211,700	\$367,711	\$0	100%	
Friendsville Rd. Reconstruction	GPD	\$101,760	Stout	\$2,065,000	\$1,798,042	UC	\$184,481	99%	\$71,921
Geyers Chapel Road Reconstruction	Wooster Engineering		Melway Paving	\$330,000	\$293,781	\$276,290	\$0	100%	\$0
2015 Primary Street Pavement Rep	Wooster Engineering		Barbicas	\$219,600	\$192,516	\$214,140	\$0	100%	\$0
WAY - Palmer Street	Wooster Engineering		Kokosing	\$132,500	\$118,036	\$112,691	\$0	100%	\$0
Minerva Paving	Wooster Engineering		Kokosing	\$43,500	\$37,328	\$34,671	\$0	100%	\$0
Point of View/Crabapple Paving	Wooster Engineering		Kokosing	\$81,500	\$74,643	\$107,708	\$0	100%	\$0
CDBG Sidewalk (2015)	Wooster Engineering		Mid Ohio Concrete	\$57,000	\$44,636	\$52,299	\$0	100%	\$0
WAY - Various Roadways (2016)	Wooster Engineering		Melway Paving	\$945,000	\$747,381	UC	\$747,381	0%	\$0
Oldman Connector Trail	Wooster Engineering		Terra Valley	\$180,000	\$162,287	\$149,195	\$0	100%	\$0
E. Pine Street Reconstruction	Wooster Engineering		Terra Valley	\$440,000	\$403,740	UC	\$398,160	1%	\$446
Vinton Woods/Tanglewood Concrete	Wooster Engineering		D.L. Smith Concrete	\$148,000	\$106,000	\$135,950	\$0	100%	\$0
WAY - E. Liberty/Pittsburgh	Wooster Engineering		Kokosing	\$450,000	\$396,203	UC	\$39,364	90%	\$15,848
E. Bowman & Long Road Resurfacing	Wooster Engineering		Karvo Paving	\$565,000	\$584,911	UC	\$220,857	62%	\$23,396
Traffic Signal Replacement	Wooster Engineering	\$17,000	Perram Electric	\$300,000	\$254,110	UC			
Columbus Gateway	OHM	\$32,300	Stout Excavating	\$218,299	\$261,495	UC			
Layton Communications Tower	Wooster Engineering	\$19,873	CFE Construction	\$60,000	\$47,160	\$33,776	\$0	100%	\$0
Christmas Run Playground - Contract A	OHM		Bogner Construction		\$130,000	UC			
Christmas Run Playground - Contract B	OHM	\$20,500	Landscape Structures	\$339,600	\$257,797	UC			
Fire Station #3	Sol Harris Day	\$42,348	CCI Commercial	\$400,000	\$439,379	UC	\$192,800	56%	\$17,483
UC=Under Construction									
<b>Subtotals</b>		<b>\$928,551</b>		<b>\$23,134,999</b>	<b>\$20,180,802</b>	<b>\$3,104,380</b>			

DIVISION OF ENGINEERING  
 2015 Project Summary  
 (Projects Designed or Constructed in 2015)

PROJECT	DESIGNER/CONSULTANT	DESIGN COST	CONTRACTOR	ESTIMATED CONST. COST	BID PRICE	FINAL COST	Contract Balance	% Complete	Retainage
<b>Subtotals</b>		<b>\$0</b>		<b>\$0</b>					
Mechanicsburg Rd. SS	Wooster Engineering	\$0	N/A	\$200,000	N/A	UD			
SRTS - Ashwood Sidewalks	Wooster Engineering			\$300,000	N/A	UD			
SRTS - Sunset - Armstrong Sidewalks	Wooster Engineering			\$300,000	N/A	UD			
Stripper Tower Painting	Burgess & Niple	\$6,700		\$200,000	N/A	UD			
Christmas Run Volleyball/Basketball	Wooster Engineering			\$90,000	N/A	UD			
Wooster Bike Loop	Poggemeyer	\$120,679		\$1,050,000	N/A	UD			
Akron Industrial Park	Engineering Associates	\$33,500		\$395,000	N/A	UD			
Downtown Streetscape	OHM	\$30,000		\$7,032,000	N/A	UD			
Northview Dr. Waterline	Wooster Engineering			\$150,000	N/A	UD			
Milltown Microsurfacing	Wooster Engineering				N/A	UD			
Impala & Skylark Waterline	Wooster Engineering		N/A	\$500,000	N/A	UD			
Oakley Culvert North	Engineering Associates	\$37,600	N/A	\$200,000	N/A	UD			
Milltown Water Tank Painting	Wooster Engineering			\$375,000	N/A	UD			
North Well Field Check Valve Replace.	Wooster Engineering			\$200,000	N/A	UD			
North Corridor Traffic Signal	Poggemeyer	\$38,148		\$727,000	N/A	UD			
Burbank Road Reconstruction	Wooster Engineering			\$1,995,000	N/A	UD			
Geyers Chapel Culvert	Wooster Engineering	\$0	N/A	\$175,000	N/A	UD			
OARDC-SR 302 Crosswalk/Signal	Wooster Engineering	\$0	N/A	\$180,000	N/A	UD			UD = Under Design
<b>Subtotals</b>		<b>\$266,627</b>		<b>\$14,069,000</b>					

DC=Design Complete

Note: Engineering consultant services and construction costs shown in this table represent totals to date. Actual expenditures occurred over several years.



The City oversaw \$20,180,802 of infrastructure construction projects in 2015 and associated engineering service contracts of \$928,551. The Division of Engineering staff designed 30 of the 38 projects keeping our design costs below the 8% to 11% industry average.

## Engineering Value Calculations

Project	Design Cost	2015 Design Costs Paid	2014 Design Costs Paid	2013 Design Costs Paid	2012 Design Costs Paid	2011 Design Costs Paid	2010 Design Costs Paid	2009 Design Costs Paid	Engineer's Estimate	Contractor	Bid Price	Final Cost	2015 Const. Payments
North High Water Tank	\$16,700	\$10,700	\$1,760	\$3,850					\$3,900,000	CB&I	\$3,066,000	UC	\$2,259,914
First Farm Waterline Contract B									\$411,915	Lockhart	\$444,031	\$442,233	\$442,233
Norman Waterline									\$106,000	Stout	\$85,299	\$104,887	\$104,887
Westridge Waterline									\$95,000	Terra Valley	\$84,252	\$88,920	\$88,920
Melrose Booster Station	\$64,550	\$2,398	\$13,252				\$48,900		\$600,000	Bogner Const	\$341,090	UC	\$317,069
Winter Tank Demolition									\$25,000	Iseler	\$24,760	\$24,760	\$24,760
Winter Tank Demolition									\$50,000	Dirt Dawg	\$58,150	\$58,150	\$58,150
Secondary Trans. Contract A									\$650,000	Simonson	\$649,873	UC	\$226,566
Secondary Trans. Contract B									\$460,000	Dirt Dawg	486,760	UC	\$119,214
Ihrig & Sherman Waterline									\$320,000	Fioritto	\$265,740	UC	\$0
WRRF - Liquid Stream	\$225,000	\$101,123	\$72,850	\$152,150					\$4,840,000	Kirk Bros	\$3,817,000	UC	\$1,574,795
First Farm Sanitary Contract A									\$371,085	Terra Valley	\$276,886	\$281,585	\$281,585
Melrose Sanitary Interceptor									\$500,000	Terra Valley	\$361,811	\$357,140	\$357,140
Quasar Electric Line	\$3,520								\$260,000	Quasar	\$260,000	\$262,275	\$262,275
Akron Road Phase 2	\$385,000			\$904	\$51,198	\$13,128	\$230,668	\$140,704	\$3,100,000	Wenger	\$3,077,862	UC	\$1,587,153
SRTS - ODOT - Parkview									\$281,000	Terra Valley	\$320,142	UC	\$253,090
Edgewood Allotment									\$190,000	Smith Paving	\$211,700	\$367,711	\$367,711
Friendsville Rd. Reconstruction	\$101,760				\$15,837	\$59,072	\$24,341		\$2,065,000	Stout	\$1,798,042	UC	\$1,970,078
Geyers Chapel Reconstruction									\$330,000	Melway	\$293,781	\$276,290	\$276,290
2015 Primary Street Pavement Rep									\$219,600	Barbicas	\$192,516	\$214,140	\$214,140
WAY - Palmer									\$132,500	Kokosing	\$118,036	\$112,691	\$112,691
Minerva Paving									\$43,500	Kokosing	\$37,328	\$34,671	\$34,671
Point of View/Crabapple									\$81,500	Kokosing	\$74,643	\$107,708	\$107,708
CDBG Sidewalk 2015									\$57,000	Mid Ohio	\$44,646	\$52,299	\$52,299
WAY - Various Roadways 2016									\$945,000	Melway	\$747,381	UC	\$0
Oldman Connector Trail									\$180,000	Terra Valley	\$162,287	\$149,195	\$149,195
E. Pine Reconstruction									\$440,000	Terra Valley	\$403,740	UC	\$5,134
Vinton Woods/Tanglewood Concrete									\$148,000	D.L. Smith	\$106,000	\$135,950	\$135,950
WAY - E. Liberty/Pittsburgh									\$450,000	Kokosing	\$396,203	UC	\$379,484
E. Bowman & Long Rd Resurfacing									\$565,000	Karvo	\$584,911	UC	\$478,312
Traffic Signal Replacement	\$17,000	\$17,000							\$300,000	Perram	\$254,110	UC	\$0
Columbus Gateway	\$32,300	\$17,837	\$14,463						\$218,299	Stout	\$261,495	UC	\$0
Layton Communications Tower	\$19,873	\$19,873							\$60,000	CFE	\$47,160	\$33,776	\$33,776
Christmas Run Playground - A										Bogner Const	\$130,000	UC	\$0
Christmas Run Playground - B	\$20,500	\$10,800							\$339,600	Landscape	\$257,797	UC	\$0
Fire Station #3	\$42,348	\$28,175							\$400,000	CCI	\$439,379	UC	\$46,151
	\$928,551	\$207,906	\$87,313	\$153,054	\$67,035	\$72,200	\$303,909	\$140,704	\$23,134,999		\$20,180,811		\$8,679,627

