

CITY OF WOOSTER
DIVISION OF ENGINEERING
2013 Annual Report



Liberty Street Resurfacing

Prepared by:
Roger Kobilarcsik, P.E. – City Engineer
Lynne DePaulo – Administrative Assistant
February, 2014

❖ **Table of Contents**

<u>Description</u>	<u>Section Number</u>	<u>Page Number</u>
Summary & Narrative	1	
❖ Executive Summary		1.01
❖ Mission Statement		1.02
❖ Organizational Chart		1.04
❖ Stormwater Management		1.05
❖ 2013 Infrastructure Project Narrative		1.06
❖ Infrastructure Projects Planned for 2014		1.11
❖ Project Map		1.13
❖ Private Developments		1.14
❖ Engineering Fee Revenue		1.16
City Growth Statistics	2	
❖ Area and Annexations		2.01
Utility Statistics	3	
❖ Storm Sewer Mileage		3.01
❖ Sanitary Sewer Mileage		3.02
❖ Waterline Mileage		3.03
❖ Water Main Leaks		3.04
❖ Sanitary Sewer Permits		3.05
❖ Water Service Permits		3.06
❖ Work Along or Across City Streets		3.07
❖ OUPS		3.08
Traffic Statistics	4	
(Thru 2012; 2013 Statistics Available in 2014)		
❖ Total Accidents		4.01
❖ Accident Rate Comparisons		4.02
Engineering Design Statistics	5	
❖ Total Projects		5.01
❖ Total Project Costs		5.03
❖ Example of Engineering Cost Effectiveness		5.04

Summary & Narrative – Section 1

Division of Engineering 2013 Annual Report Executive Summary

The 2013 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, 2013. 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 near 4.4% for 2013. 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 major projects alone was over \$600,000 in 2013.

The Engineering Division managed 30 infrastructure projects in 2013. The total dollar value of construction projects completed or under construction in 2013 was over \$7,000,000. Final construction costs were 1% lower than the contracts awarded price. 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 2013, 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. 171 permits were issued in 2013 compared to 231 in 2012. Fewer permits were issued due to the conclusion of the Batdorf Road Sanitary Sewer project.

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. In 2013 we had a significant increase in notifications processing 2731 requests. OUPS has been promoting their new "811 - Call Before You Dig" campaign and many of these new requests are from private citizens. Due to a new 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.

2013 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.

Personnel:

<i>Name</i>	<i>Title</i>	<i>Years Experience</i>
Roger Kobilarcsik	City Engineer, Licensed Professional Engineer	24
BJ Hoffman	Inspector II, B.S. Degree Construction Technology	26
Dave Case	Inspector II, Assoc. Degree Civil Eng. Technology	20
Matt Hill	Inspector II, ODOT Right-of-Way Certification	29
Spencer Gray	Engineering Technician/Drafter	29
Tom Hart	Engineering Technician/GIS Technician	31
Lynne DePaulo	Administrative Assistant/Contract Specialist	37
John Rice	Staff Engineer, Licensed Professional Engineer	7
Lance Cole	Program Manager	21

Personnel costs were kept low by significantly reducing overtime, training and education to only that necessary to maintain required professional licensures. The program manager was hired to handle stormwater regulation requirements, pavement condition ratings (PCR) program, support for GIS and project management.

Operations:

O&M costs have been reduced by reducing equipment, supplies and materials to only those items absolutely essential to perform job duties.

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:

- ▶ 100 projects planned for construction from 2013-2018
- ▶ \$24,000,000 in Roadway
- ▶ \$20,000,000 in Water
- ▶ \$13,000,000 in Sewer
- ▶ \$ 6,000,000 in Storm

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

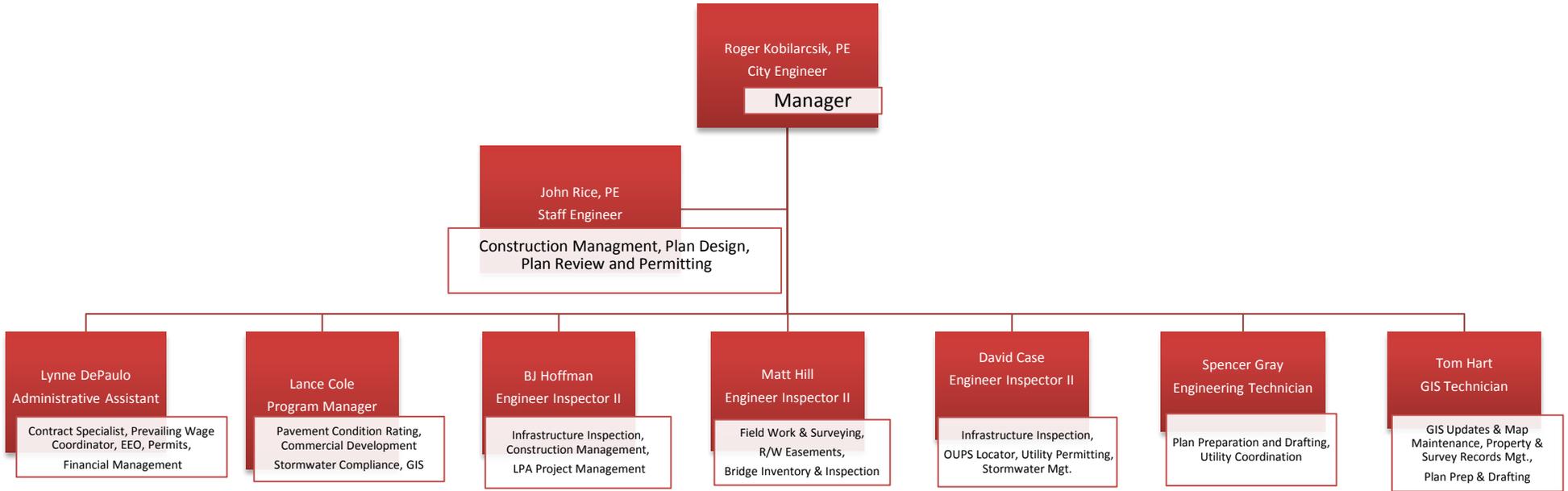
1. Water Distribution and Storage – Replacing existing mains and providing adequate storage
 - a. Funding Needs in 2014 = \$7,400,000
 - b. Funding Needs in 2015 = \$2,000,000
2. Sewer Collection – upgrade the existing WPCP & sewer separation to meet EPA requirements
 - a. Funding Needs in 2014 = \$4,500,000
 - b. Funding Needs in 2015 = \$1,000,000
3. Roadways – Numerous streets and signals need replaced and improved
 - a. Funding Needs in 2014 = \$6,300,000
 - b. Funding Needs in 2015 = \$3,200,000
4. Storm Sewer – Sewer separations & roadway culvert replacements
 - a. Funding Needs in 2014 = \$1,000,000
 - b. Funding Needs in 2015 = \$ 300,000

The City aggressively seeks outside funding sources in an effort to offset the high costs of infrastructure improvements. Over the last 5 years, more than \$9,500,000 has been obtained in grant money and over \$5,500,000 in zero 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 such as the water tanks, roadway projects, and several waterline and sewer separation projects. Also included are funds for our wastewater pollution control plant and bio-tower.

For 2013, the Division of Engineering obtained financing through OPWC for 4 projects to replace aging waterlines and/or sewer separation totaling \$1,644,000 in low interest loans. ODOT granted over \$2,000,000 in 2013 for projects which include sidewalk projects (SRTS), Friendsville Road Reconstruction, resurfacing projects and micro-surfacing projects.

Division of Engineering

Organizational Chart



Stormwater Management

The Division of Engineering is responsible for the city's stormwater management plan as mandated by Ohio EPA. The program entails managing the six minimum control measures.

1. **PUBLIC EDUCATION AND OUTREACH:** The City has a cooperative agreement with the Wayne County Soil and Water Division to educate students in environmental conservation programs such as Environscapes, Freddie the Fish and Tony the Trashbag. Kelly Riley, Education Specialist, taught more than 50 sessions last year and reached over 900 students.

As part of the outreach program, we annually send informational letters to residents that maintain septic systems within the city limits. Educational flyers are also included in the water bill at least once a year to help promote environmental awareness.

2. **PUBLIC INVOLVEMENT/PARTICIPATION:** The College of Wooster and various service organizations partner with the City's Park Department to volunteer in park clean-up activities, tree planting and trail projects.

Links are provided on our website for local information on recycling and connecting to the Tri-County Waste Management Division. The website also contains a complaint section that sends the information directly to the City Engineer.

3. **ILLICIT DISCHARGE DETECTION & EDUCATION:** It is the Engineering Division's roll to locate, map, and update the city's storm system onto GIS. This includes mapping outfalls, ditches, streams and water courses and identifying HSTS.

Training for building inspectors, site inspectors as well as our maintenance division was held in September 2013. This training gave an overview on stormwater maintenance and good housekeeping practices.

4. **CONSTRUCTION SITE RUN-OFF CONTROL:** Development permits are issued for construction sites. Preconstruction meetings are held for all parties involved in the project with a major focus being on stormwater management and abiding by city standards. Sites are regularly inspected for drainage issues and violation letters are issued listing the necessary actions to be taken to bring the site into compliance.

With the addition of a project manager, more site inspections were able to be completed in a timely manner. There were 13 development sites being inspected bi-weekly to ensure stormwater compliance.

5. **POST CONSTRUCTION STORM WATER MANAGEMENT:** Sites are inspected annually to be sure that best practices are still being maintained.
6. **POLLUTION PREVENTION/GOOD HOUSEKEEPING:** On the job training is provided annually. Procedures have been developed for the disposal of wastes, road salt and pesticide usage.



Division of Engineering 2013 Project Narrative February, 2014

INFRASTRUCTURE PROJECTS COMPLETED OR UNDER CONSTRUCTION IN 2013:

1. **Merchant Block Parking Lot Improvements:** The City of Wooster became involved in the Merchant Block development and divided the project into several contracts. Contract A, B, C covered the sidewalk, utilities, parking & site work and streetscape. The contract was bid in July, 2012 with Stout Excavating submitting the low bid of \$351,881.55. Work was completed by December 2012 with a final project cost of \$378,313.

Contract D,E,F was for landscaping, patio and dumpster enclosure. Stout Excavating was awarded the contract with a bid price of \$81,000. Work was completed spring of 2013 at a final cost of \$90,889.14.

Contract G entails a traffic signal replacement at the Walnut and Liberty Street intersection. The project was bid in November, 2012 with Miller Cable submitting the low bid of \$144,000. Work was completed in July 2013 with a final project cost of \$158,465.66.

The entire project came in at \$627,667 with OPWC providing funding in the amount of \$144,000.

2. **Burbank Road Sanitary:** This project was designed by the Wooster Engineering Division and consists of replacing two existing vitrified clay sanitary sewer lines with a new PVC sanitary sewer. The existing sanitary sewers were converted to a storm sewer with additional catch basins added in preparation of resurfacing Burbank Road in 2013. Construction cost estimate for this project was \$730,000. Underground Utilities submitted the low bid of \$703,446 and began work in December 2012. Work was completed in July 2013 with a final project cost of \$728,647.80.

3. **Spring Street W/L:** This project was designed by the Wooster Engineering Division and consists of replacing an existing cast iron waterline with a new ductile iron waterline. Improvements include upgrading water services and new fire hydrants. The construction cost estimate for this project was \$570,000 and is partially funded through OPWC with a grant of \$300,000.

The project was bid in January 2013 and awarded to Fioritto Construction for a bid price of \$514,112. The project was completed in August 2013 at a final cost of \$513,273.85.

4. **Wooster Gateway Projects:** The project is located at the intersection of SR 30 and Madison Avenue (SR 302) adjacent to downtown Wooster, Ohio. It consisted of landscaping elements including trees, shrubs and wildflower plantings. Other design elements include identity and directional signage, minor sidewalk improvements, and site elements. Engineers estimate was \$325,000 and was funded by ODOT in the amount of \$250,000.

Stout Excavating was awarded the contract with a bid price of \$370,867. Work was completed in September 2013 with a final project cost of \$305,123.

5. **Safe Routes to Schools:** The City of Wooster in conjunction with the Wooster City Schools has determined several areas within the city that will benefit from installation of sidewalks; enabling a greater number of students to safely walk to school which should help reduce traffic congestion at many of the elementary schools. With financing through ODOT, the first area to be improved was Melrose Drive from Portage Road to Melrose Elementary School.

The sidewalk project was designed by the Division of Engineering with an estimated cost of \$118,000. Terra Valley was awarded the contract with a bid price of \$68,489. A new sidewalk, pedestrian signal and crossing were installed at a final cost of \$68,702.93. ODOT funding amounted to \$63,701.10.

Kean Elementary and Parkview Elementary are slated to have the SRTS project begin in 2014 for their areas.

6. **Market/Spruce Sewer Separation:** This project was designed by the Division of Engineering with a cost estimate of \$380,000 and a loan from OPWC was obtained in the amount of \$265,000. The project entails construction of approximately 1410' of storm sewer, catch basins and manholes. The project was bid in January 2013 and awarded to G.E. Baker Construction for a bid price of \$338,078.

G.E. Baker completed the project in August 2013 with a final cost of \$322,703.87. OPWC funded \$193,622.20 towards the project.

7. **University/Wayne Resurfacing:** The Engineering Division designed this project with an estimated cost of \$185,000. The project was bid Fall, 2012 and Kokosing was awarded the contract for a bid price of \$182,894. The project was completed in September 2013 with a final project cost of \$166,113.77.

8. **Friendsville Road Reconstruction:** This project was designed by GPD Associates and consists of placing curb and gutter, sidewalks and widening the road to accommodate the additional traffic between Riffel and Milltown Roads. The construction cost estimate was \$2,065,000. The project was bid in September 2013 with a total of 6 contractors submitting bids. Stout Excavation was the low bidder at a price of \$1,798,042.49. Construction is slated to begin February 2014 and has a November 2014 completion date. ODOT is funding this project in the amount of \$1,317,744.39.

9. **Spink Street (North of Bowman) Sewer Separation:** This project is another on the mandated OEPA sewer separation project list. It was designed by the City of Wooster Division of Engineering and has a cost estimate of \$900,000. The project includes 3900' of storm sewer, 500' of sanitary, 1700' of storm and sanitary laterals, catch basins and manholes. A \$500,000 OPWC loan was obtained to assist in funding this project.

The project was bid in September 2013 with 2 contractors submitting bids. Wenger Excavating was awarded the contract with a bid of \$989,524.10. Work began in December 2013 and will continue through spring with an estimated final construction date of May 2014.

10. **Madison Hill Water Storage Tank Improvements:** The Water Storage Tanks located at the OARDC, Madison Avenue and Milltown Road were evaluated for possible recoating and improvements. Burgess and Niple provided the inspection services and reported the necessary steps to improve the tanks. Madison Hill tank improvements include surface preparation, interior and exterior painting, and concrete and steel repair work. The project was awarded to D & M Painting Corporation in July 2013 with a project cost of \$402,600. Work will begin in spring 2014.

11. **W. Henry Street Waterline Replacement:** The City of Wooster's Engineering Division designed a new waterline to replace an old cast iron line which has a history of failures. The project consists of 327 LF of 6" DI waterline, 8 service replacement and miscellaneous appurtenances. The engineer's estimate was \$75,000. Dirt Dawg was awarded the contract in November, 2013 with a bid of \$53,315. Construction will begin end of January 2014.

12. **Armstrong Drive Waterline Replacement:** This project consists of replacing 1633 LF of 8" DI waterline and had an engineering estimate of \$240,000. It was bid in October 2013 and awarded to Dirt Dawg with a bid price of \$186,386.00. Work began in November 2013 and is expected to be completed by May 2014.

13. **Burbank Road Resurfacing:** This project was partially funded by ODOT and consisted of planing and resurfacing 9879 SY of pavement, curb ramps and pavement markings. The project was bid in June 2013 and awarded to Barbicas Construction with a contract price of \$183,876.15. Work began in August and was completed in September. Final quantities and paperwork are still being processed.

- 14. North Street Microsurfacing:** Part of the ODOT microsurfacing/pavement repair program, this project involved crack sealing and microsurfacing 2227 SY of pavement, new curb ramps and new pavement markings. American Pavements was awarded the project in May 2013 with a bid price of \$34,243.75. Work was completed in August with a final project cost of \$32,822.70.
- 15. Portage Road Resurfacing:** This project is also ODOT funded and involves planing and resurfacing 15,066 SY asphalt concrete pavement, curb ramps and pavement markings. The project was bid in December 2013 with a work start date of May 2014. Karvo Paving submitted the low bid of \$238,691.90.
- 16. Weaver Drive Waterline Connection:** This was a smaller project designed by the Division of Engineering to complete a loop within the system. The project consisted of 122 LF of ductile iron waterline. Fioritto Construction was awarded the project with a price of \$37,421.
- 17. 2013 Sewer Rehabilitation:** This project was bid in July 2013 and had an engineer's estimate of \$65,000. Insight Pipe Contracting was awarded the contract with a bid price of \$33,333.85. The project consisted of rehabilitation of 499 LF storm sewer and 307 LF of sanitary sewer cured-in-place pipe and 5 service lateral replacements. The project was completed in November 2013 with a final cost of \$22,617.43
- 18. Catherine Street Sanitary Sewer Replacement:** The estimate for this project was \$80,500 and consists of replacing 470 LF of 8" sanitary sewer pipe, 3 manholes and 6 sanitary laterals. The project was bid in January 2014 and awarded to Dirt Dawg Construction with a bid price of \$78,890.
- 19. Vine Street Waterline Replacement:** This project was for the replacement of 490 LF of ductile iron waterline including 7 gate valves, 1 fire hydrant and 4 water services. The estimate was \$45,000 and Stout Excavating was awarded the contract with a bid price of \$48,960. The project was completed spring 2013 at a final cost of \$49,230.
- 20. Glenn Avenue Waterline & Sanitary Sewer Replacement:** This project called for replacement of approximately 412 LF of 6" ductile iron waterline and 366 LF of 8" PVC plastic sanitary sewer main, including all services and appurtenances on Glenn Avenue and replacement of approximately 388 LF of 8" PVC plastic sanitary sewer main including laterals and manholes on Saybolt. The engineer's estimate for the total project was \$195,000. The project was bid in May 2013 and the contract awarded to Dirt Dawg Construction with a bid of \$167,394. The project was completed in September 2013 with a final project cost of \$161,208.
- 21. Hamilton Avenue Waterline:** This contract consists of replacement of an existing waterline with approximately 933 lineal feet of 8" ductile iron waterline including all appurtenances and 15 service connections with an engineering estimate of \$155,000. The project was bid in June 2013 and received 8 bids. Dirt Dawg Construction was the low bidder with a bid price of \$136,580. The work was completed by September 2013 at a final price of \$122,495.

22. W. Wayne Avenue Waterline Replacement: This project consisted of replacement of an existing waterline with approximately 355 lineal feet of 12" ductile iron waterline, including all appurtenances and had an engineer's estimate of \$65,000. The project was bid in July 2013 with Fioritto Construction being the low bidder at \$56,951. The project was completed in September 2013 with a final amount of \$57,889.

23. N. Market Resurfacing: This project originally was to include pavement planing and resurfacing of approximately 9207 square feet of pavement, constructing new curb ramps and new pavement markings on both N. Market Street and E. Larwill. It was amended to just N. Market Street and reduced to 4,611 SF of pavement. Kokosing was awarded the contract with a bid price of \$117,255.75 in September 2013. The project was completed in November 2013 at a final cost of \$97,195.

24. North Street Waterline: The project consisted of replacement of a waterline with approximately 669 lineal feet of 10", 8" and 6" ductile iron waterline, including all appurtenances and 3 service replacements and an engineering estimate of \$105,000. The project was awarded to Dirt Dawg Construction in September 2013 with a bid price of \$107,925. It was completed in November 2013 with a final project cost of \$110,661.

25. Dorchester Area Micro-surfacing: Strawser Construction was able to micro-surface several roads in this area in September 2013 for a cost of \$49,912.

26. Westview Drive Waterline: Dirt Dawg Construction performed the replacement of 583 LF of ductile iron water line in November 2013 at a cost of \$43,328.50.

27. Liberty Street Resurfacing: This project included pavement planing and resurfacing of approximately 4882 square yards of concrete pavement, placing new curb ramps with truncated domes and new pavement markings. The engineer's estimate was \$169,500. Kokosing Construction was awarded the contract with a bid price of \$151,997. Final project cost was \$158,238 and was partially funded by ODOT.

28. Oak Hill Resurfacing: This project included pavement planing and resurfacing of approximately 11,432 square yards of pavement, placing new curb ramps with truncated domes and new pavement markings and had an engineer's estimate of \$360,000. Kokosing Construction was awarded the contract with a bid price of \$308,433. Final project cost was \$301,495 and was partially funded by ODOT.

29. Beall Avenue – Lowry Center: The work consisted of furnishing all materials, equipment and labor for the installation of a pedestrian hybrid beacon (HAWK) crosswalk lighting system, roadway signage and markings. The engineer's estimate was \$50,000. Thompson Electric was awarded the contract with a bid price of \$59,267. The final project cost was \$59,672.

INFRASTRUCTURE PROJECTS SCHEDULED/PLANNED FOR 2014:

1. **North High Water Tank:** This project is under design by the Division of Engineering with a current estimate of \$3,900,000. This project will provide water storage in a portion of the City's water system which currently provides less than ½ day of storage based on current average water usage.

The purchase of land for the water tank is currently being negotiated. The project will be started as soon as possible as part of the utility work (sewer and water lines) necessary in conjunction with the building of the Daisy manufacturing facility.

2. **SR585/Akron Road Reconstruction – Phase II:** This project is being designed with the intent to reduce congestion and improve safety by installing storm sewers, curb and gutters, sidewalks, bike path, adding a turn lane and providing a new surface course over the existing roadway between Gateway Drive and Long Road. The project estimate is \$3,100,000.00 and will be partially funded by ODOT.

Right-of-way easements have been obtained and assessment notices have been sent. The project is scheduled to be bid Spring 2014.

3. **Melrose Booster Station:** This project consists of construction of a booster station to pump water from the intermediate zone to the north high zone. The station includes a pump building, pumps, electrical, telemetry, waterline piping and backup generator. Design of the project is being done by GGJ Engineering and the Division of Engineering. Construction cost estimate for this project is \$644,500.

4. **SRTS – Kean Elementary:** As part of the SRTS – ODOT funding, sidewalks will be installed along north side of West Highland Avenue between Christmas Run and Oak Hill. The bid date is February 13, 2014 with work expected to begin April 2014. The engineer's estimate is \$220,000.

5. **OARDC – SR 302 Crosswalks and Signal Replacement:** This project is being coordinated with the OARDC/ATI to install crosswalks and sidewalks in the recently annexed area on SR 302 adjacent to the campus. Construction of these crosswalks is part of the annexation agreement between the OARDC with costs being shared. The traffic signal at the intersection of SR 302 and SR 83 will also be replaced at this time. The engineer's estimate is \$180,000.

6. **Paving Projects:** With funding from OPWC and coordination with the Wayne County Engineer the Division of Engineering is completing design and construction specifications for Oak Hill (Oldman to Milltown). Other areas to be paved in 2014 include Kurtz Street, Winter Street and E. Liberty Street. Chip and seal will be performed on North Bauer and Industrial Blvd.

7. **Various Waterline Projects:** The Division of Engineering is in the process of designing waterline replacement projects for various areas of the city including Branstetter Road, Morgan Drive, Oakley, Ihrig and Sherman.

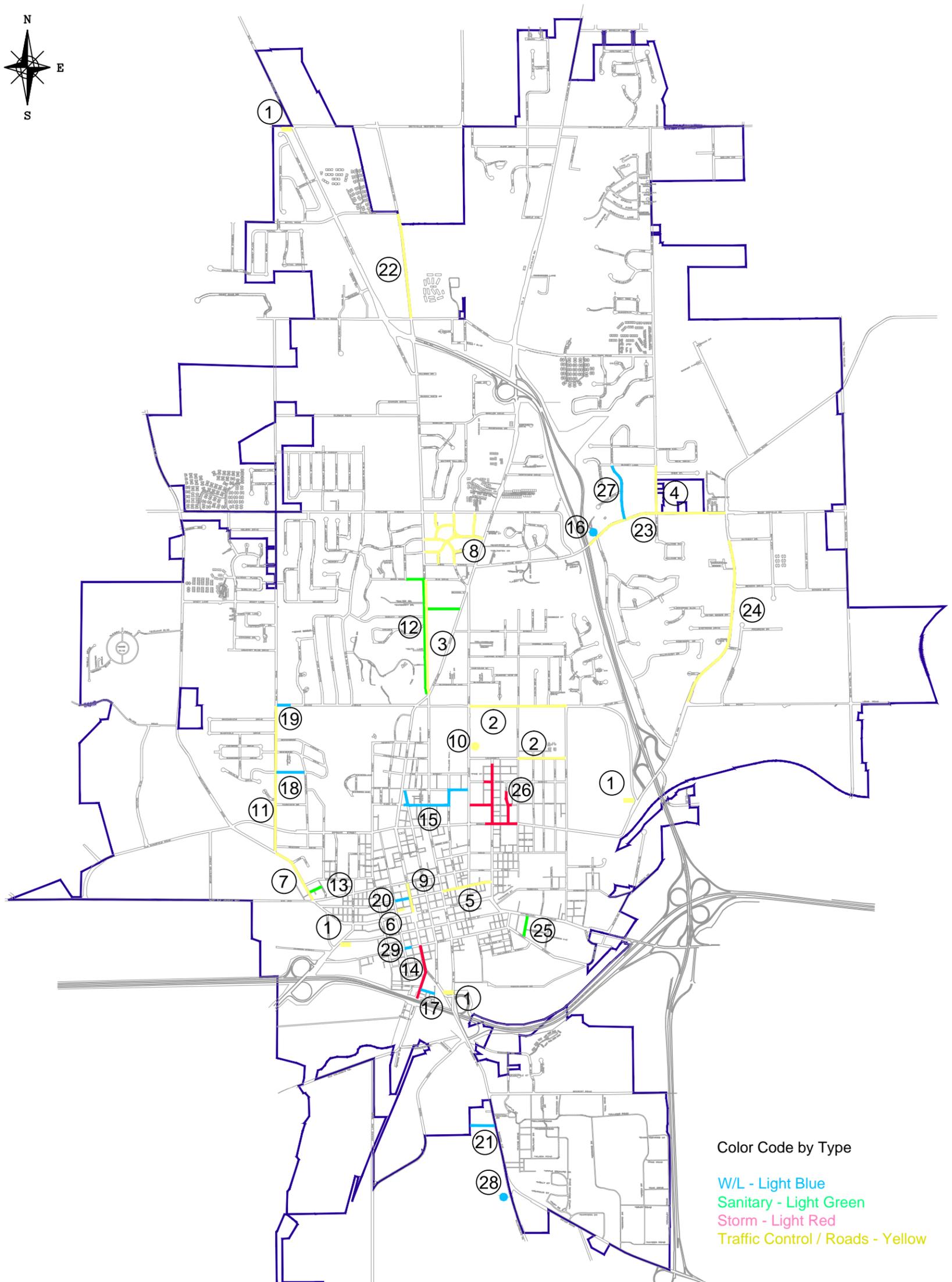
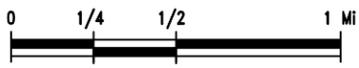
8. **Melrose Drive Interceptor Rehabilitation:** The City of Wooster's Engineering Division will prepare construction plans and specifications for rehabilitation of the interceptor lines as an upgrade to improving the area for the Daisy facility. The engineering's estimate for this project is \$350,000.

9. **Storm Sewers & Culverts:** There are various storm sewer projects that the Engineering Division will be designing and construction during 2014. They include culvert replacements at Oakley, Geyers Chapel and Melrose and gabions at Brookside. Design work will also be progressing on Bucholz Drive and Lemar Drive for upgrading storm sewers.

10. **Beechwood & Northwestern Storm Replacement:** Design work is progressing on the replacement of approximately 140 feet of storm sewer. The engineer's estimate is \$200,000.

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

2013 - 2014 City Infrastructure Projects				
Completed, Proposed and In Process 1/1/13 to 12/31/13				
#	Project Name	Description	Construction Dates	Primary Funding Source
Completed Projects				
1	Wooster Gateway Projects	Signage, Landscaping	Completed Fall 2013	ODOT - Local
2	University/Wayne Resurfacing	Roadway Resurfacing	Completed Fall 2013	Local
3	Burbank Road Resurfacing	Roadway Resurfacing	Completed Fall 2013	ODOT - Local
4	State Route 162 School	Markings, Resurfacing	Fall 13 - Spring 13	ODOT - Local
5	2013 Microsurfacing Program	North Street Microsurfacing	Summer 2013	ODOT - Local
6	Merchants Block	Parking, Traffic, Landscaping	Completed Summer 2013	OPWIC - Local
7	Liberty Street Resurfacing	Roadway Resurfacing	Fall 2013	ODOT - Local
8	Donchelder Area Microsurfacing	Roadway Microsurfacing	Fall 2013	Local
9	U. Market Resurfacing	Roadway Resurfacing	Fall 2013	Local
10	Beall Avenue - Lovers' Center	Pedestrian Lighting	Summer 2013	Local
11	Oak Hill Resurfacing	Roadway Resurfacing	Fall 2013	ODOT - Local
12	Burbank Road Sanitary	Storm and Sanitary Sewer	Completed Summer 2013	Local
13	Ohio Avenue W/L & Sanitary	Water & Sanitary Sewer	Fall 2013	Local
14	Market/Grace Sewer Separation	Storm and Sanitary Sewer	Winter 13 - Summer 13	OPWIC - Local
15	Spring Street W/L	Water Line Replacement	Spring 13 - Summer 13	OPWIC - State
16	Wesley Drive W/L Connection	Connection	Summer 2013	Local
17	Vine St W/L Replacement	Water Line Replacement	Spring 2013	Local
18	Hamilton Ave. W/L	Water Line Replacement	Fall 2013	Local
19	W. Water Waterline	Water Line Replacement	Fall 2013	Local
20	North Street Waterline	Water Line Replacement	Fall 2013	Local
21	Westview Drive Waterline	Water Line Replacement	Fall 2013	Local
Projects In Process				
22	Friendville Road Reconstruction	Miltovn to Rittel	Summer 14 - Fall 15	ODOT - Local
23	Portage Road Resurfacing	Roadway Resurfacing	Summer 2014	ODOT - Local
24	Alton Road - SR 435 - Phase 2	Local Road to Gateway	Summer 14 - Fall 15	ODOT - Local
25	Catharine Sanitary Sewer Replacement	Sanitary Sewer	Winter 14 - Summer 14	Local - Sewer Funds
26	Spink Street Sewer Separation	Storm and Sanitary Sewer	Winter 13 - Summer 14	OPWIC - Local
27	Armstrong Drive Waterline Replacement	Water Line Replacement	Fall 13 - Summer 14	Local
28	Madison Hill Tank Storage Improvements	Improvements	Spring 14 - Summer 14	Local
29	W. Henry Street Waterline	Water Line Replacement	Winter 14 - Summer 14	Local

Private Developments

1. Private Subdivisions/Commercial Property under Construction:

Private development and expansion held steady for 2013. The City issued 13 development permits totaling just over \$30,000 in fees associated with those permits. The Merchant Block complex on W. Liberty was completed with several condominium units being sold and LemonBerry Yogurt opening spring 2013. Jimmy Johns has also committed to opening a shop in the complex January 2014.

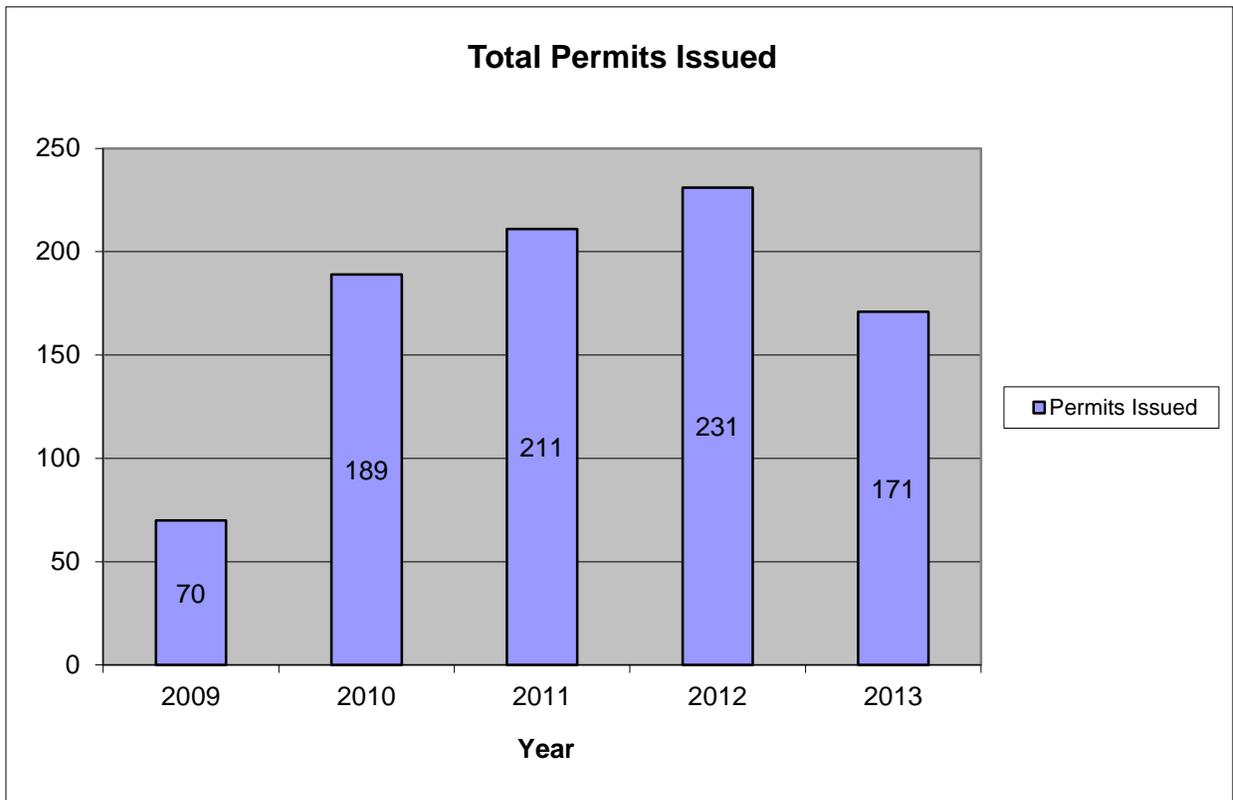
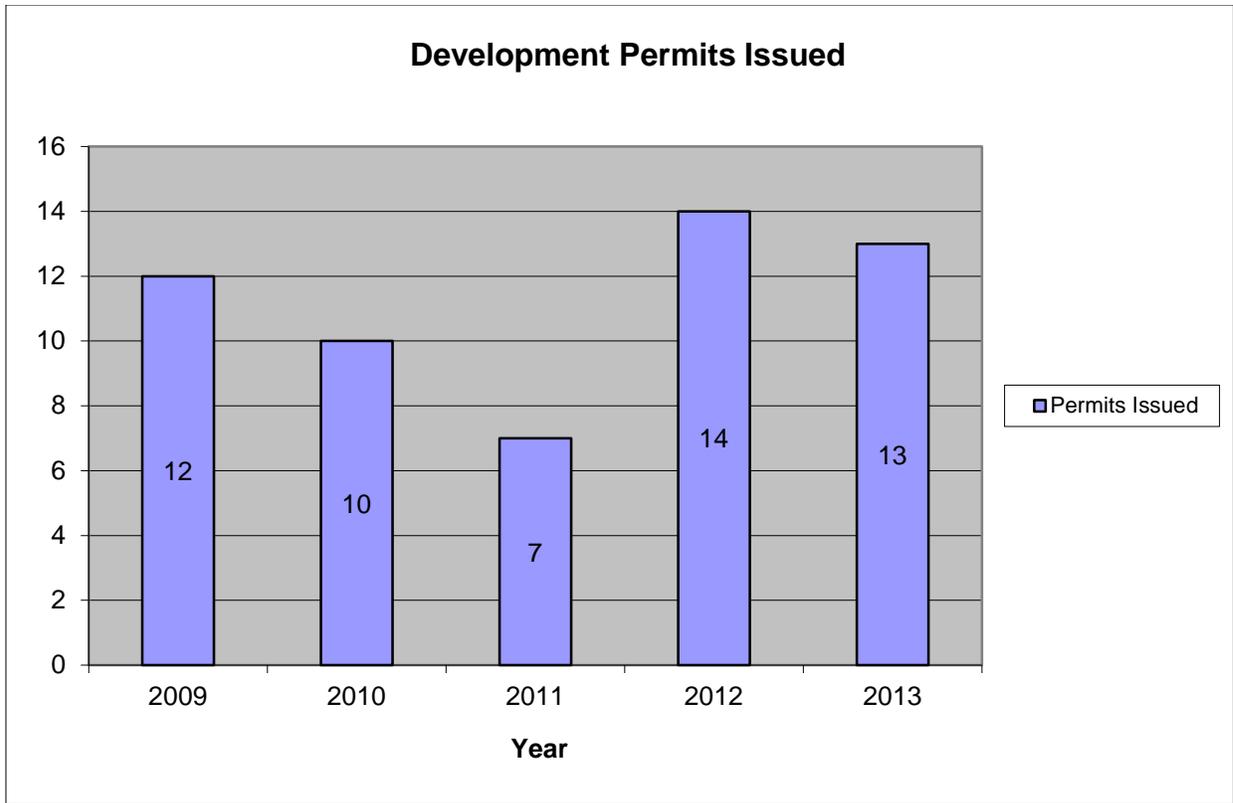
New construction for 2013 included some of the following:

- Dollar General: 2 stores were opened within city limits; Akron Road & Cleveland Road
- Greenfield Crossing: Independent living facility
- Brasfond: Expansion to the existing facility
- Cottagewood Apartments: Luxury rental apartments
- Gomoplast (GMI): New office and warehouse

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 2013.

City of Wooster						
Engineering Development Permits						2013
DEVELOP. #	PERMIT NO.	PROJECT NO.	NAME / DESCRIPTION	SITE IMP.S COST ESTIMATE	PLAN REVIEW FEE	DATE RECEIVED
1	2013001	123029	Palm House Apartments	\$ 900,000.00	\$ 2,110.00	02/13/13
2	2013002	123031	Dollar General - Akron Road	\$ 285,000.00	\$ 1,907.50	4/19/2013
3	2013003	133020	Seaman Corp Addition	\$2,973,000	\$ 860.50	04/19/13
4	2013004	123014	Brasfond - Phase 2	\$ 500,000.00	\$ 3,225.00	05/13/13
5	2013005	123017	Greenfield Crossing	\$ 2,414,000.00	\$ 8,185.50	05/15/13
6	2013006	133033	Gomoplast (GMI)	\$1,051,350	\$ 3,981.00	07/02/13
7	2013007	133035	Dollar General - Cleveland Road	\$ 200,000.00	\$ 1,109.50	07/27/13
8	2013008	133036	Cottagewood Apartments	\$1,000,000	\$ 5,401.00	08/09/13
9	2013009	133043	OARDC Ag Engineering Building	\$ 10,800,000.00	\$ 900.00	09/03/13
10	2013010	133038	Clarifier Replacment	\$ 900,000.00	\$ 500.00	09/09/13
11	2013011	133047	Tekfor Paving	\$25,000	\$ 535.60	10/02/13
12	2013012	133052	LUK Parking Expansion	\$50,000	\$ 783.50	10/31/13
13	2013013	133056	Frito Lay Parking Expansion	\$ 160,000.00	\$ 660.00	11/12/13
				\$21,258,350	\$ 30,159.10	

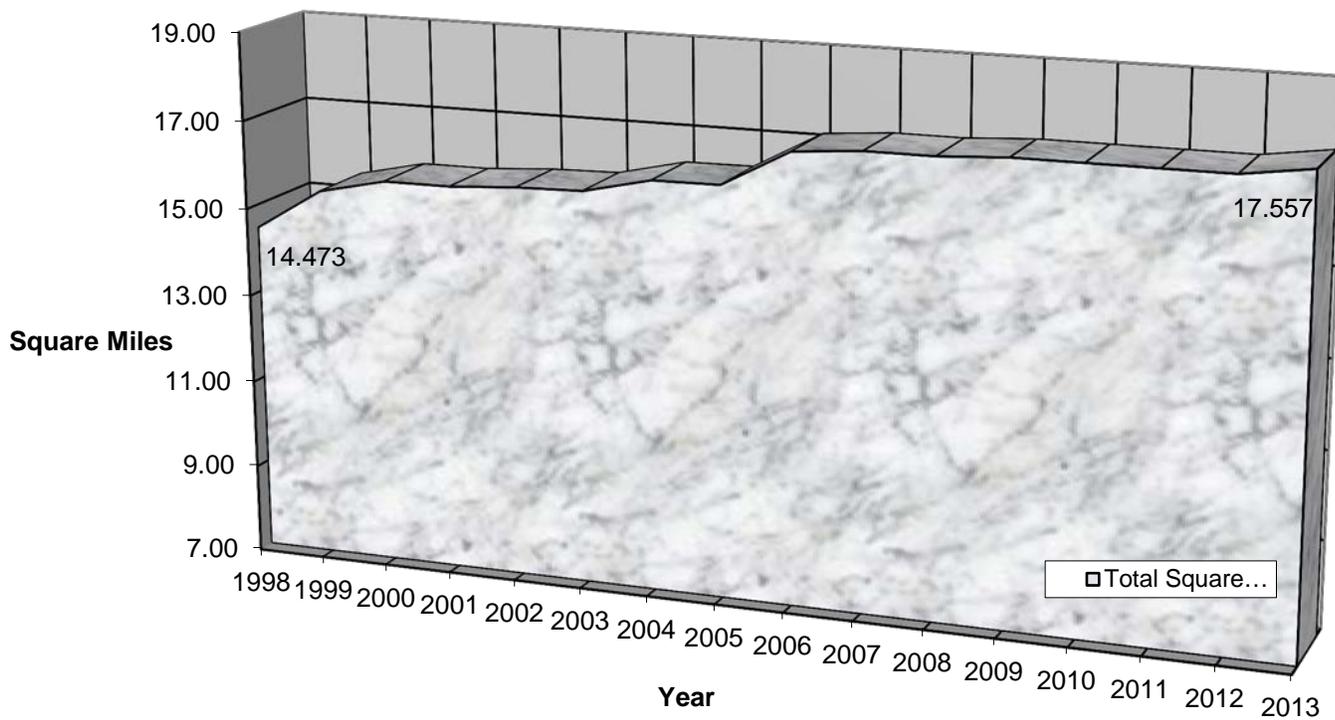


The total number of permits issued for 2013 was less than recent years due to the completion of the Batdorf Road Sanitary Sewer project.

*Division of Engineering
City of Wooster
2013 Annual Report*

City Growth Statistics – Section 2

City Growth Total City Area



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

2013

No.	Description	Date	Area
1	Akron Rd. & Geyers Chapel	1/7/2013	140.012 AC
2	Mechanicsburg N. of Crosswind	9/4/2013	.53 AC
3	Akron Rd. & Geyers Chapel	9/4/2013	.66 AC

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

NOTES

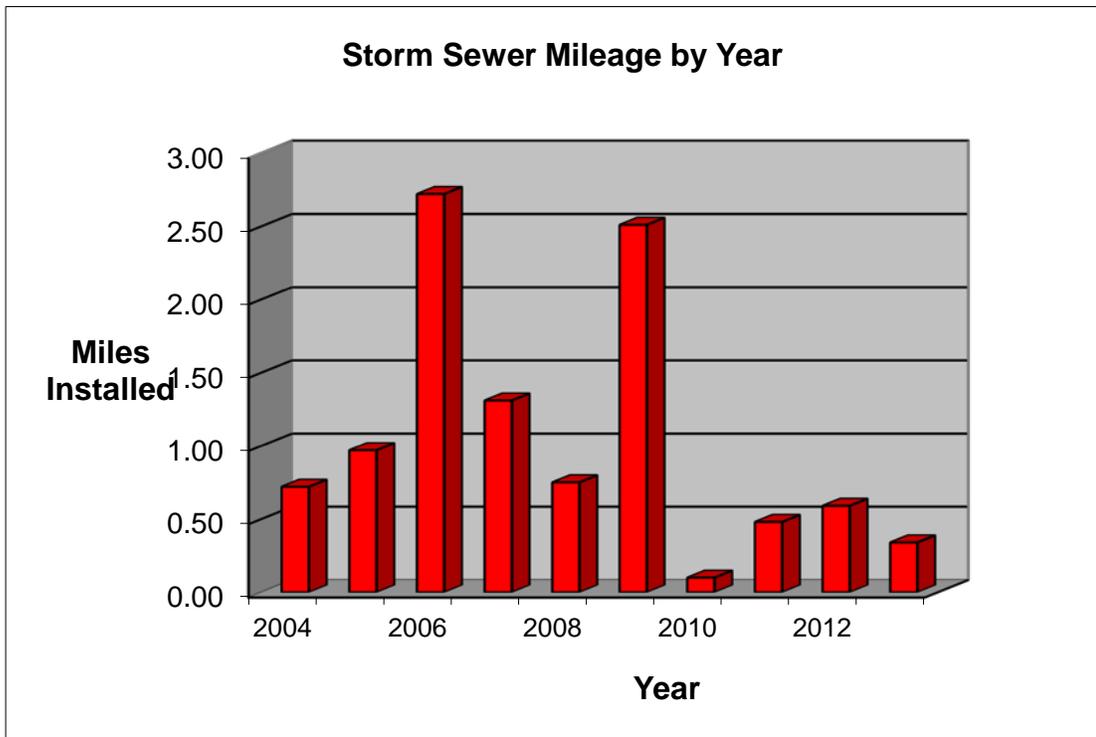
- 1) Population growth saw a 5.27% increase from 2000 to 2010 based on actual census figures.

*Division of Engineering
City of Wooster
2013 Annual Report*

Utility Statistics – Section 3

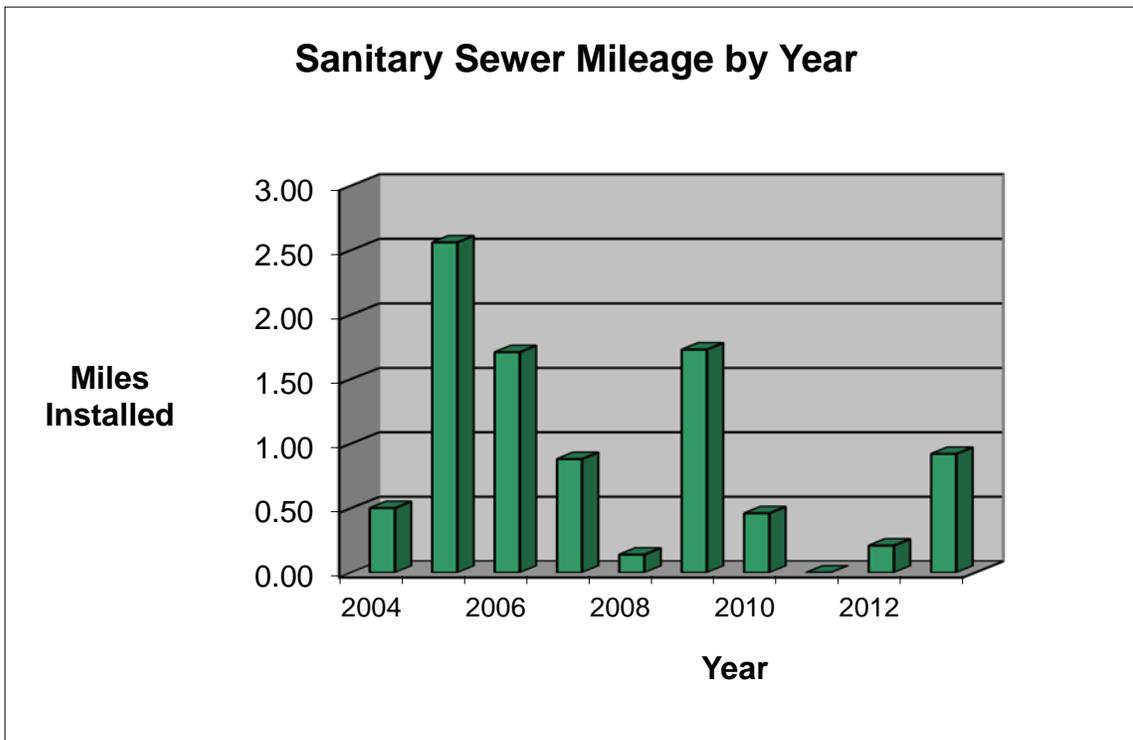
Storm Sewer Mileage

Year	Increase in Miles	Total Mileage	% Increase
		109.91	
2004	0.72	110.63	0.00%
2005	0.97	111.60	0.65%
2006	2.72	114.32	0.87%
2007	1.31	115.63	2.38%
2008	0.75	116.38	1.13%
2009	2.51	118.89	0.64%
2010	0.10	118.99	2.11%
2011	0.48	119.47	0.08%
2012	0.59	120.06	0.40%
2013	0.34	120.40	0.49%



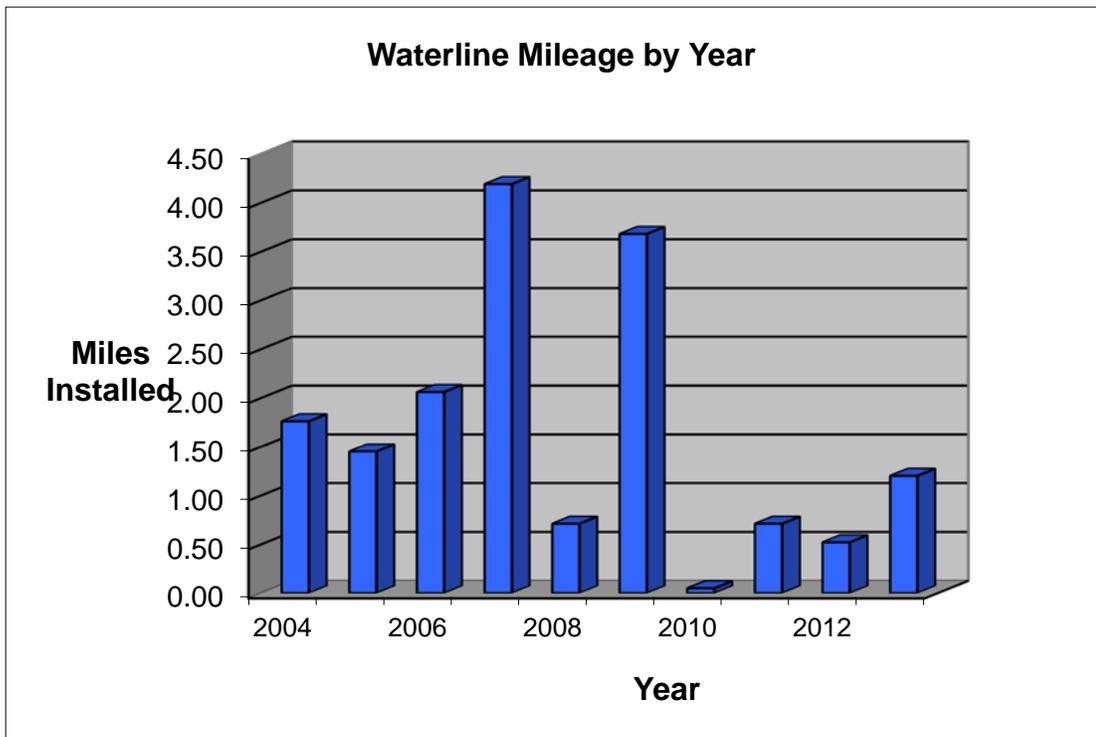
Sanitary Sewer Mileage

Year	Increase in Miles	Total Miles	% Increase
		111.79	
2004	0.50	112.29	0.45%
2005	2.56	114.85	2.28%
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%



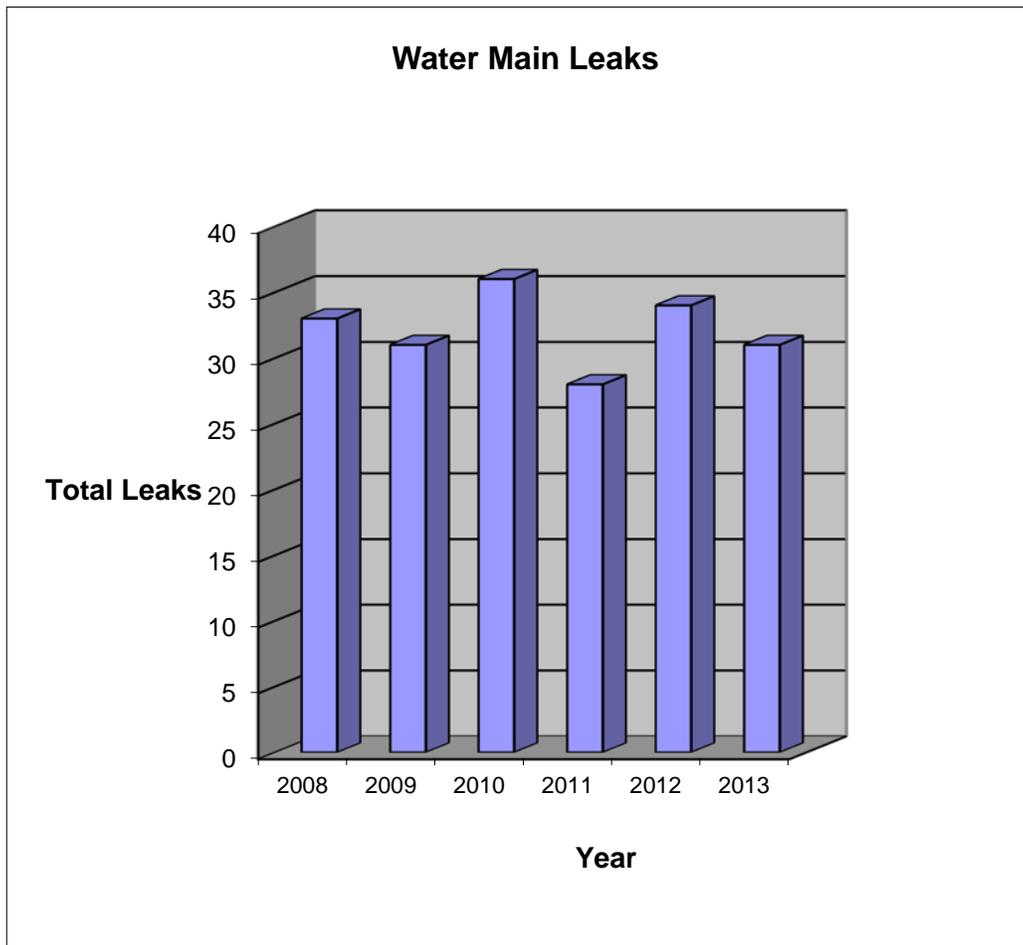
Waterline Mileage

Year	Increase in Miles	Total Miles	% Increase
		119.18	
2004	1.76	120.94	1.48%
2005	1.45	122.39	1.20%
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%



Water Main Leaks

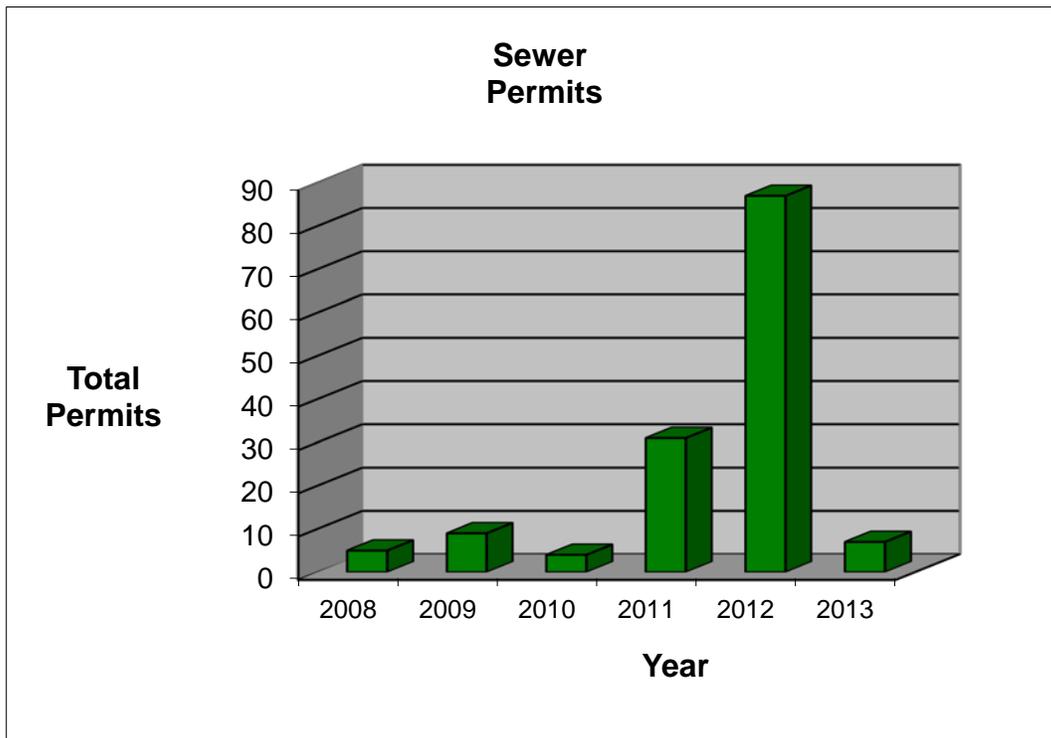
<u>Year</u>	<u>Number</u>
2003	42
2004	37
2005	21
2006	17
2007	26
2008	33
2009	31
2010	36
2011	28
2012	34
2013	31



Water leaks continue to be consistent due to the age and deterioration of the current infrastructure. Many leaks occurred on water mains originally scheduled for replacement, but postponed due to budget shortfalls.

Sewer Permits

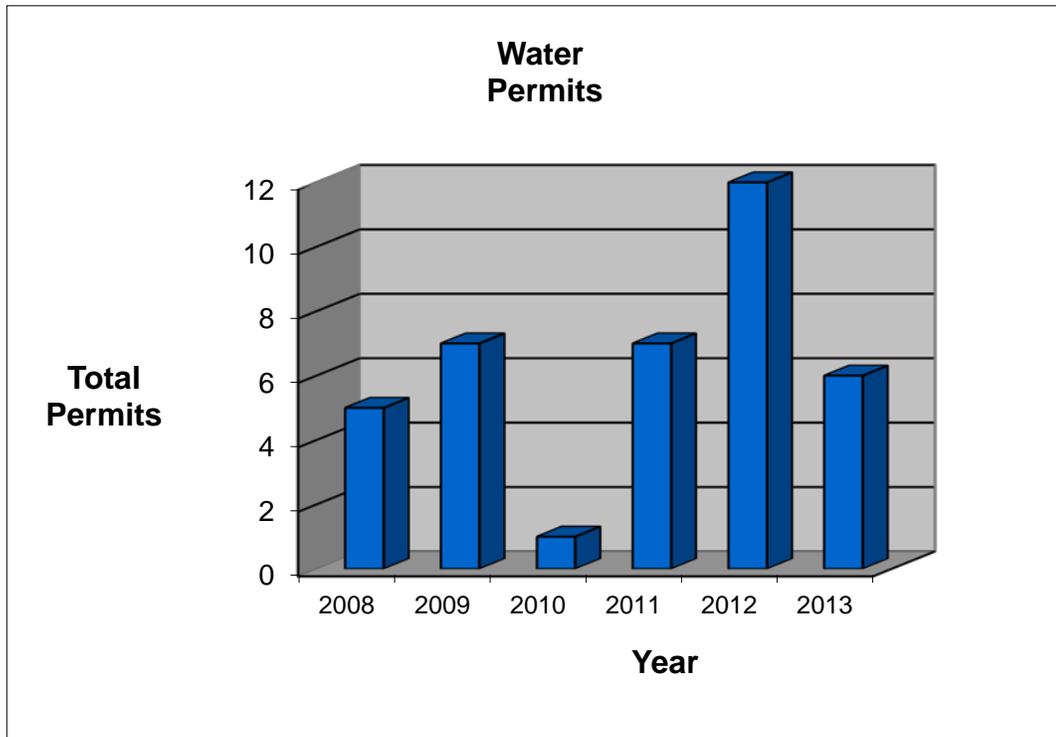
Year	Number
2005	9
2006	15
2007	15
2008	5
2009	9
2010	4
2011	31
2012	87
2013	7



With the completion of the Batdorf Road Sanitary Improvement project, the number of sewer permits issued in 2013 was in the normal range of less than 10.

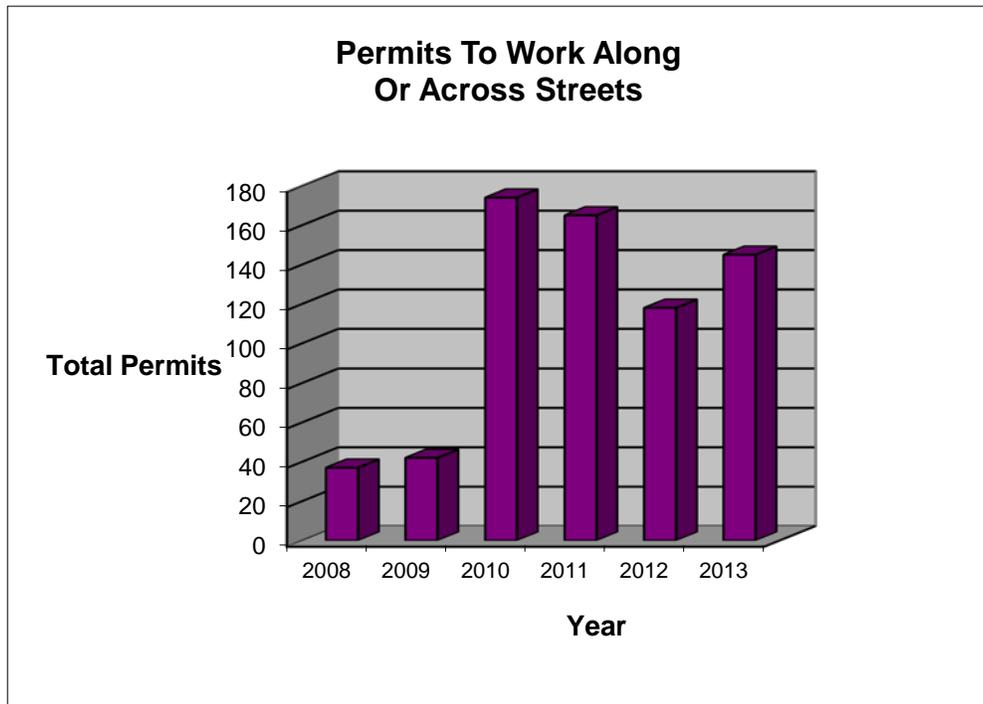
Water Permits

Year	Number
2004	14
2005	7
2006	12
2007	10
2008	5
2009	7
2010	1
2011	7
2012	12
2013	6



**Permits To Work Along
Or Across Streets**

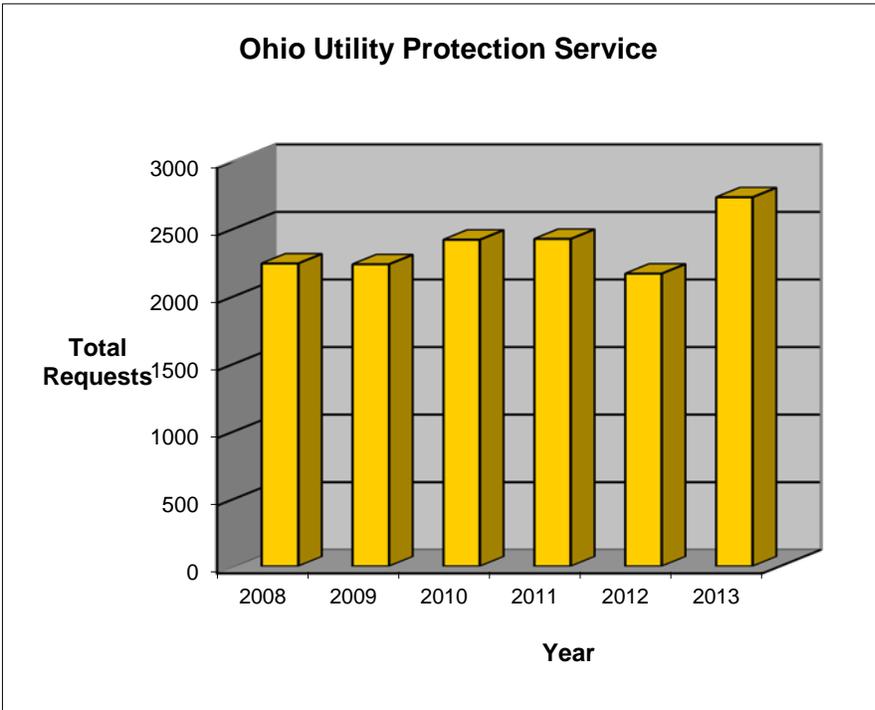
<u>Year</u>	<u>Number</u>
2005	27
2006	37
2007	59
2008	37
2009	42
2010	174
2011	165
2012	118
2013	145



In 2010 the Division of Engineering began requiring the utility companies to obtain permits for all work performed with the city’s right-of-way. Dominion East Ohio Gas continues to be the leader complying with our requirements. Because of these issued permits, our inspectors are able to ensure that roadways, sidewalks and tree lawns are restored to their original condition.

Ohio Utility Protection Service
Location Requests

<u>Year</u>	<u>Number</u>
2003	2087
2004	2334
2005	2356
2006	2332
2007	2270
2008	2241
2009	2235
2010	2417
2011	2423
2012	2166
2013	2731

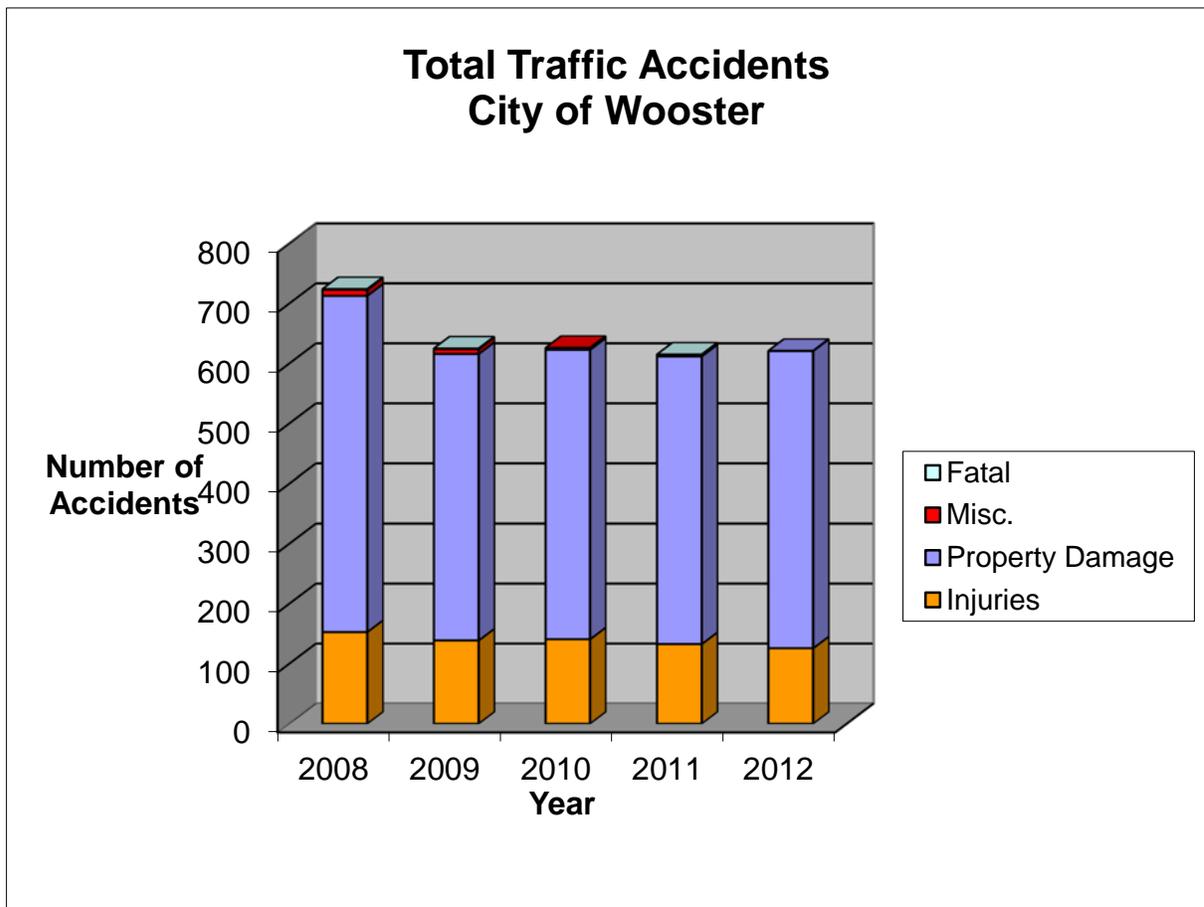


*Division of Engineering
City of Wooster
2013 Annual Report*

Traffic Statistics – Section 4

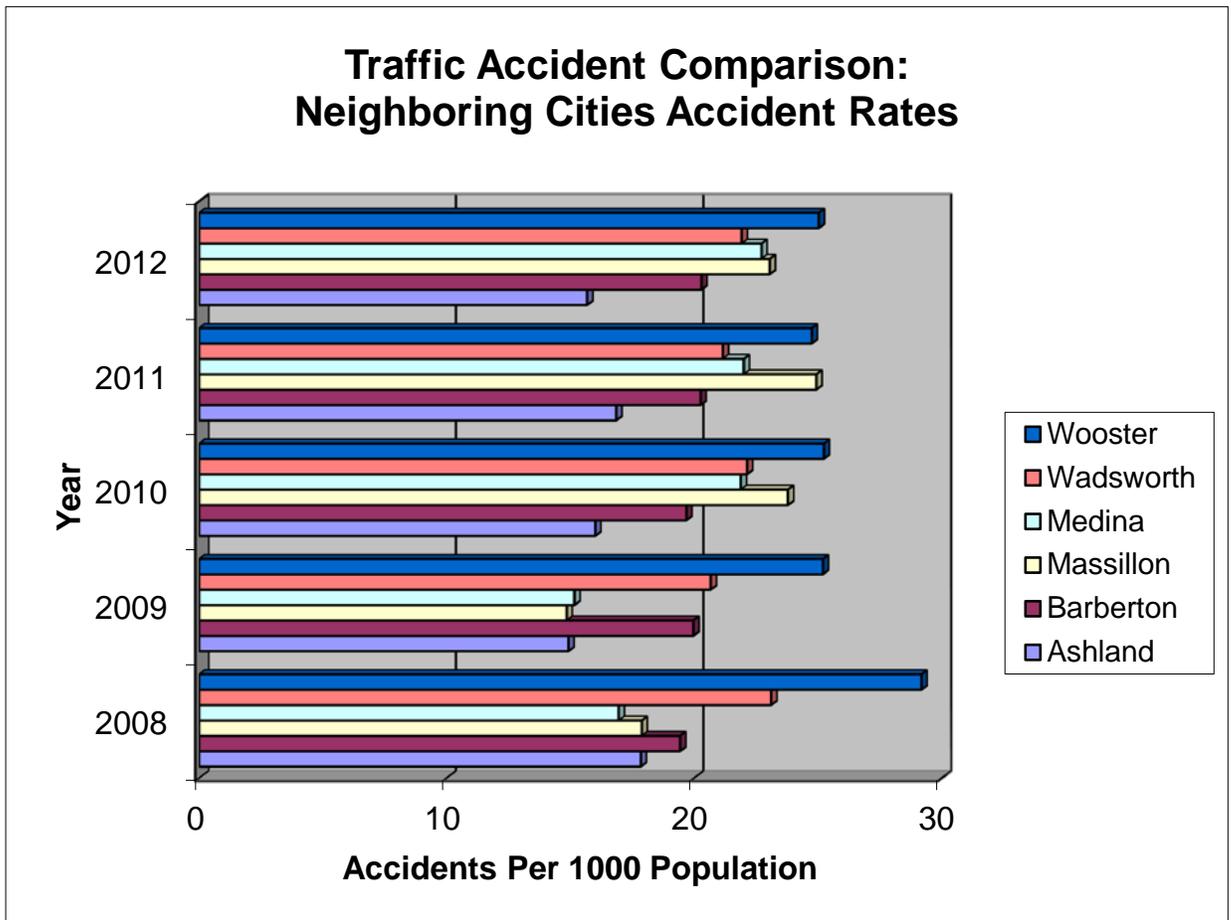
City of Wooster
Traffic Accidents

Year	Injuries	Property Damage	Misc.	Fatal
2008	153	560	10	1
2009	139	477	8	1
2010	141	482	3	
2011	133	479		3
2012	126	495		



Traffic Accident Comparison
Totals By Neighboring Cities

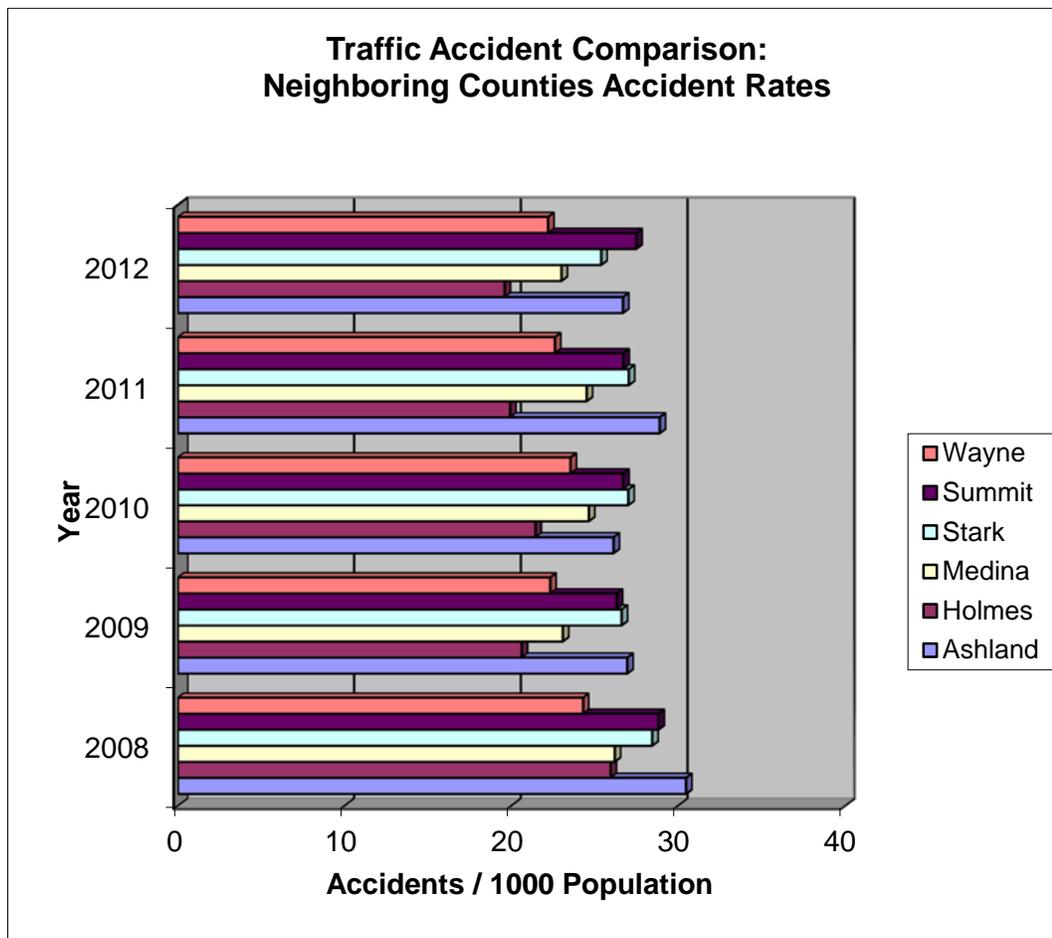
Year	Ashland	Barberton	Massillon	Medina	Wadsworth	Wooster
2007	362	599	846	526	419	674
2008	379	542	814	560	426	724
2009	317	557	745	465	381	625
2010	340	549	745	550	408	626
2011	358	565	781	553	390	614
2012	333	566	722	571	404	621



Traffic Accident Comparison Rates by Neighboring Counties

Accidents Per 1000 People

Year	Ashland	Holmes	Medina	Stark	Summit	Wayne
2008	30.48	25.96	26.21	28.45	28.83	24.3
2009	26.96	20.62	23.08	26.62	26.33	22.33
2010	26.14	21.44	24.66	27.02	26.72	23.54
2011	28.9	19.93	24.53	27.05	26.73	22.61
2012	26.7	19.6	23	25.4	27.5	22.2



*Division of Engineering
City of Wooster
2013 Annual Report*

Engineering Design Statistics – Section 5

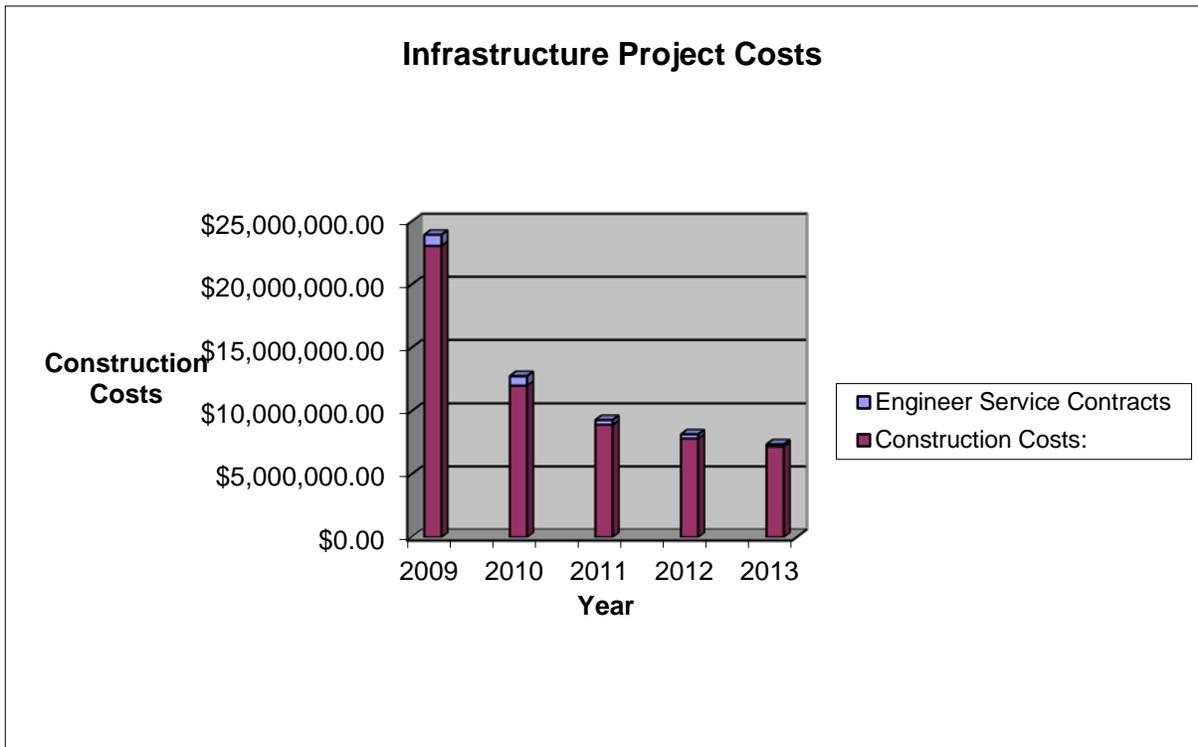
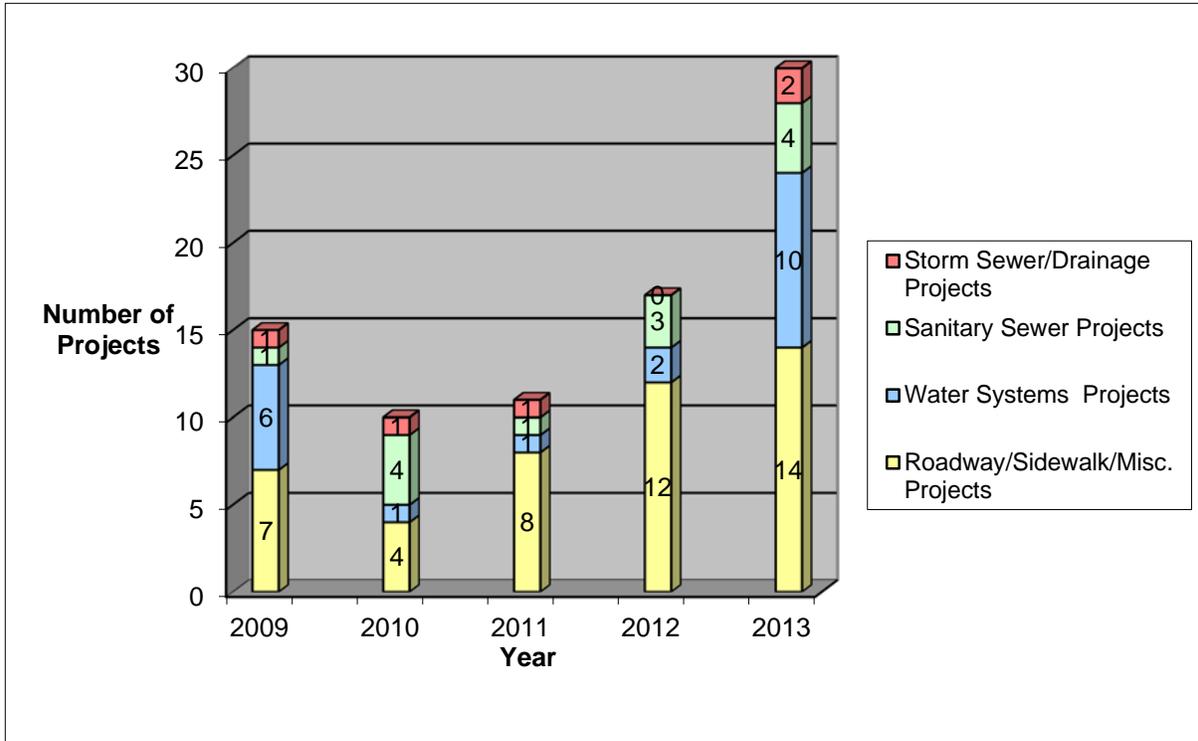
DIVISION OF ENGINEERING
2013 Project Summary
(Projects Designed or Constructed in 2013)

PROJECT	DESIGNER/CONSULTANT	DESIGN COST	CONTRACTOR	ESTIMATED CONST. COST	BID PRICE	FINAL COST	Contract Balance	% Complete	Retainage
Burbank Road Sanitary Sewer	Wooster Engineering	\$0	Underground Utilites	\$730,000	\$703,446	\$728,648	\$0	100%	\$0
Spring Street Waterline	Wooster Engineering	\$0	Fioritto Construction	\$570,000	\$514,112	\$513,274	\$0	100%	\$0
Wooster Gateway Project	GGJ	\$56,500	Stout	\$325,000	\$370,867	\$305,123	\$0	100%	\$0
SRTS - Melrose Elementary	Wooster Engineering	\$0	Terra Valley	\$118,000	\$68,489	\$68,703	\$0	100%	\$0
Beall Avenue - Lowry Center	Wooster Engineering	\$2,400	Thompson Electric	\$50,000	\$59,267	\$59,672	\$0	100%	\$0
Market/Spruce Sewer Separation	Wooster Engineering	\$0	G.E. Baker	\$380,000	\$338,078	\$322,704	\$0	100%	\$0
University/Wayne Resurfacing	Wooster Engineering	\$0	Kokosing	\$185,000	\$182,894	\$166,114	\$0	100%	\$0
Merchants Block Parking Lot/Walnut St. Contract D,E, F	Wooster Engineering	\$0	Stout	\$90,000	\$81,000	\$90,889	\$0	100%	\$0
Merchants Block Parking Lot/Walnut St. Contract G	Wooster Engineering	\$12,300	Miller Cable	\$160,000	\$144,000	\$158,466	\$0	100%	\$0
Armstrong Drive	Wooster Engineering	\$0	Dirt Dawg	\$240,000	\$186,386	UC	\$21,575	88%	\$7,455
Burbank Road Resurfacing	Wooster Engineering	\$0	Barbicas	\$192,500	\$183,876	UC	\$183,876	99%	\$0
Friendsville Rd. Reconstruction	GPD	\$101,760	Stout	\$2,065,000	\$1,798,042	UC	\$1,798,042	0%	\$0
Madison Hill Water Storage Tank Improvements	Wooster Engineering	\$0	D & M Painting	\$470,000	\$402,600	UC	\$402,600	0%	\$0
North St. Microsurfacing	Wooster Engineering	\$0	American Pavements	\$37,000	\$34,244	\$34,244	\$0	100%	\$0
Portage Rd. Resurfacing	Wooster Engineering	\$0	Karvo Paving	\$300,000	\$238,692	UC	\$238,692	0%	\$0
Spink St. Sewer Separation	Wooster Engineering	\$0	Wenger	\$900,000	\$989,524	UC	\$989,524	0%	\$0
W. Henry St. W/L Replacment	Wooster Engineering	\$0	Dirt Dawg	\$75,000	\$53,315	UC	\$53,315	0%	\$0
Catherine St. Sanitary Sewer Replacem	Wooster Engineering	\$0	Dirt Dawg	\$80,500	\$78,890	UC	\$78,890	0%	\$0
Weaver Dr. W/L Connection	Wooster Engineering	\$0	Fioritto Construction	\$28,700	\$37,421	\$37,421	\$0	100%	\$0
2013 Sewer Rehab	Wooster Engineering	\$0	Insight Pipe Contracting	\$65,000	\$33,334	\$22,617	\$0	100%	\$0
Vine St. Waterline Replacement	Wooster Engineering	\$0	Stout Excavating	\$45,000	\$48,960	\$49,230	\$0	100%	\$0
Glen Ave. W/L & Sanitary	Wooster Engineering	\$0	Dirt Dawg	\$195,000	\$167,394	\$161,208	\$0	100%	\$0
Hamilton Ave. W/L	Wooster Engineering	\$0	Dirt Dawg	\$155,000	\$136,580	\$122,495	\$0	100%	\$0
W. Wayne Waterline	Wooster Engineering	\$0	Fioritto Construction	\$65,000	\$56,951	\$57,889	\$0	100%	\$0
N. Market Resurfacing	Wooster Engineering	\$0	Kokosing	\$174,000	\$117,256	\$97,195	\$0	100%	\$0
North St. Waterline	Wooster Engineering	\$0	Dirt Dawg	\$105,000	\$107,925	\$110,661	\$0	100%	\$0
Dorchester Area Microsurfacing	Wooster Engineering	\$0	Strawser Construction	\$50,000	\$49,912	\$49,912	\$0	100%	\$0
Westview Drive W/L	Wooster Engineering	\$0	Dirt Dawg	\$68,300	\$43,329	\$43,329	\$0	100%	\$0
Liberty Street Resurfacing	Wooster Engineering	\$0	Kokosing	\$169,500	\$151,997	\$158,238	\$0	100%	\$0
Oak Hill Resurfacing	Wooster Engineering	\$0	Kokosing	\$360,000	\$308,433	\$301,495	\$0	100%	\$0
Subtotals		\$172,960		\$8,448,500	\$7,687,213	\$3,659,525			

DIVISION OF ENGINEERING
2013 Project Summary
(Projects Designed or Constructed in 2013)

PROJECT	DESIGNER/CONSULTANT	DESIGN COST	CONTRACTOR	ESTIMATED CONST. COST	BID PRICE	FINAL COST	Contract Balance	% Complete	Retainage
SRTS - Kean Elementary - Sidewalk	Wooster Engineering	\$0	N/A	\$220,000	N/A	DC			
Akron Rd - Phase 2	Engineering Associates	\$385,000	N/A	\$2,800,000	N/A	DC			
Subtotals		\$385,000		\$3,020,000					
Mechanicsburg Rd. SS	Wooster Engineering	\$0	N/A	\$200,000	N/A	UD			
North High Water Tank	Wooster Engineering	\$0	N/A	\$3,900,000	N/A	UD			
Melrose Booster Station	GGJ	\$48,900	N/A	\$644,500	N/A	UD			
Beechwood & Northwestern Storm	Wooster Engineering	\$0	N/A	\$200,000	N/A	UD			
Branstetter Road Waterline	Wooster Engineering	\$0	N/A	\$250,000	N/A	UD			
Waterline Replacement - various	Wooster Engineering	\$0	N/A	\$400,000	N/A	UD			
Morgan & Oakley Waterline	Wooster Engineering	\$0	N/A	\$600,000	N/A	UD			
Oakley Culvert	Wooster Engineering	\$0	N/A	\$200,000	N/A	UD			
Geyers Chapel Culvert	Wooster Engineering	\$0	N/A	\$175,000	N/A	UD			
Paving Projects	Wooster Engineering	\$0	N/A	\$625,000	N/A	UD			
SRTS - ODOT - Parkview	Wooster Engineering	\$0	N/A	\$100,000	N/A	UD			
Fire Station #2	Architectual Resources Inc.	\$334,000	N/A	\$4,000,000	N/A	UD		UD = Under Design	
OARDC-SR 302 Crosswalk/Signal	Burgess & Niple	\$10,500	N/A	\$180,000	N/A	UD		UC = Under Construction	
Subtotals		\$393,400		\$11,474,500					

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



The City oversaw \$7,687,213 of infrastructure construction projects in 2013 and associated engineering service contracts of \$172,960. Industry averages for design fees are 8% to 11% of construction costs. The Division of Engineering staff designed 28 of the 30 projects.

Engineering Value Calculations (Major Projects Only)

Project	Design Cost	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	2013 Const. Payments	2012 Const. Payments
Under Construction												
Friendsville Rd. Improvements	\$101,760		\$15,837	\$59,072	\$24,341	\$0	\$2,000,000	Stout	\$1,798,042	UC		
Burbank Road Sanitary Sewer	\$0						\$730,000	Underground Utilites	\$703,446	\$728,648	\$556,445	\$172,203
Spring Street Waterline	\$0						\$570,000	Fioritto	\$514,112	\$513,274	\$513,274	\$0
Wooster Gateway Project	\$0			\$56,500			\$325,000	Stout	\$370,867	\$305,123	\$79,121	\$226,002
SRTS - Melrose Elementary	\$0						\$118,000	Terra Valley	\$68,489	\$68,703	\$2,962	\$65,741
Beall Avenue - Lowry Center	\$2,400		\$2,400				\$50,000	Thompson Electric	\$59,267	\$59,672	\$13,509	\$46,163
Market/Spruce Sewer Separation	\$0						\$380,000	G.E. Baker	\$338,078	\$322,704	\$322,704	\$0
University/Wayne Resurfacing	\$0						\$185,000	Kokosing	\$182,894	\$166,114	\$166,114	\$0
Merchants Block Parking Lot/Walnut St. Contract D.E. F	\$0						\$90,000	Stout	\$81,000	\$90,889	\$47,095	\$43,794
Merchants Block Parking Lot/Walnut St. Contract G	\$12,300		\$12,300				\$160,000	Miller Cable	\$144,000	\$158,466	\$158,466	\$0
Armstrong Drive Waterline	\$0						\$240,000	Dirt Dawg	\$186,386	UC	\$164,811	
Burbank Road Resurfacing	\$0						\$192,500	Barbicas	\$183,876	UC	\$0	
Portage Road Resurfacing	\$0						\$300,000	Kokosing	\$238,692	UC	\$0	
Spink St. Sewer Separation	\$0						\$900,000	Wenger	\$989,524	UC	\$0	
W. Henry W/L Replacement	\$0						\$75,000	Dirt Dawg	53,315	UC	\$0	
Catherine St. Sanitary Sewer	\$0						\$80,500	Dirt Dawg	\$78,890	UC	\$0	
Glenn Ave. W/L & Sanitary	\$0						\$195,000	Dirt Dawg	\$167,394	\$161,208	\$161,208	
Hamilton Ave. W/L	\$0						\$155,000	Dirt Dawg	\$136,580	\$122,495	\$122,495	
W. Wayne Waterline	\$0						\$65,000	Fioritto	\$56,951	\$57,889	\$57,889	
N. Market Resurfacing	\$0						\$174,000	Kokosing	\$117,256	\$97,195	\$97,195	
North St. Waterline	\$0						\$105,000	Dirt Dawg	\$107,925	\$110,661	\$110,661	
Liberty Street Resurfacing	\$0						\$169,500	Kokosing	\$151,997	\$158,238	\$15,823	
Oak Hill Resurfacing	\$0						\$360,000	Kokosing	\$308,433	\$301,495	\$301,495	
	\$116,460	\$0	\$30,537	\$115,572	\$24,341	\$0	\$7,619,500		\$7,037,414		\$2,891,267	\$553,903
Value of Design Engineering* =	8.5%								\$598,180			
Design Completed												
Akron Rd - Phase 2	\$385,000	\$904	\$51,198	\$13,128	\$230,668	\$140,704	\$3,100,000					
SRTS Kean Elementary	0						\$220,000					
	\$385,000	\$904	\$51,198	\$13,128	\$230,668	\$140,704	\$3,320,000					
Under Design												
Paving Projects	10500	10247					\$625,000					
North High Water Tank	\$0	\$3,850				\$4,125	\$3,900,000					
Melrose Booster Station	\$63,150	\$13,252				\$48,900	\$644,500					
	\$73,650	\$27,349	\$0	\$0	\$0	\$53,025	\$5,169,500					
Preliminary Engineering, Planning & Funding												
Water Projects (1)	\$0						\$1,260,000					
Sewer projects (1)	\$0						\$725,000					
Storm (1)	\$0						\$1,080,000					
Roadway Projects (1)	\$0						\$1,120,000					
	\$0	\$0	\$0	\$0	\$0	\$0	\$4,185,000					

Under Construction (2013)		
Value of Construction Engineering	10.00%	\$289,126.70
Design Value Provided in 2013	12.0%	\$51,327.62

Design Completed (2013)		
Value of Design Engineering	8.50%	-\$154,401.74

Under Design (2013)		
Value of Design Engineering	8.50%	\$359,033.50

Planning (2013)		
Value of Preliminary Engineering	3.00%	\$125,550

Total Engineering Services Provided in 2013		
		\$670,636

Consultant Services Paid	% of Construction
\$170,450.00	5.13%
\$436,601.74	13.15%
\$80,374.00	1.55%
\$0.00	0.00%
\$687,425.74	4.42%

Notes:
Fees for Engineering services are based on standard industry rates as established by various regulatory and funding agencies, including ODOT, USDA, EPA and OPWC, as well as recent engineering services proposals.

(1) Sum of construction estimates from the 10 year infrastructure plan.