Engineering Department

Gary E. West, Director

The Engineering Department is responsible for planning, designing, bidding, funding and the construction management for all Public Works Projects within the City of Mishawaka. Also review of all private development and utility company projects for conformance with Engineering Standards, i.e. storm water management, sanitary construction and connection, and right-of-way access and improvements. Our office also manages the Traffic Signal System, Traffic Cameras, right-of-way records and As-Built records for locating right-of-way infrastructure, such as the City fiber-optic system, and the storm and sanitary sewer systems.

Engineering Staffing

The Engineering Department staff includes the Director and Assistant Director of Engineering, a Construction Manager, a Project Manager and Traffic Manager and a Project Coordinator as well as an MS-4 Coordinator and two part-time secretaries.

The Director of Engineering is responsible for the day-to-day management of the Engineering Department. The Director also serves at the City's representative on the following boards and committees:

- President of Board of Public Works and Safety/Utility Board
- Technical Advisor & Member, City of Mishawaka Plan Commission
- Technical Advisor & Member, City of Mishawka Traffic Commission
- Member of the City's Solid Waste Committee
- Member of the Transportation Task Force, St. Joseph County Chamber of Commerce
- Member of the Transportation Technical Advisory Committee, Michiana Area Council of Governments.
- Mayor Wood designated the Director of Engineering as Deputy Mayor
- Northern Regional Director of the Indiana Association of City Engineers

The Assistant Director of Engineering conducts all site plan reviews, including storm water management, site access, sanitary sewer connections, and construction plan reviews. These plan reviews include new residential and industrial subdivisions, documenting compliance with storm water regulations, subdivision infrastructure requirements, sanitary sewer engineering standards, and to ensure that adequate sanitary sewer capacity is available to serve the proposed development. The Assistant Director also:

- reviews storm water management calculations and plans submitted by developers
- reviews construction plans and specifications for development of improvements to public streets, sewers and drainage within proposed subdivisions
- administers the sanitary sewer use ordinance for connection of county residents
- Coordinates with Wastewater Treatment staff, Consultant Lawson-Fisher Associates of South Bend, Indiana, and Bethel College staff in the development and implementation of the MS4 Program. Participates in the MSP, which is the regional MS4 Education Committee with St. Joseph County, City of South Bend, and Soil and Water Conservation

District.

- Works with consultants to complete design plans and construction cost estimates for various public infrastructure projects.

- This delegation of responsibilities generates a more timely response to developers, engineer and contractor inquiries while enabling the Director of Engineering to focus on planning, right of way, and funding for future Public Works Projects

The Construction Manager oversees all City construction projects within the two Tax Incremental Financing (TIF) Districts to ensure compliance with construction documents and addresses construction concerns reported by the public.

The Project Manager oversees all Public Works projects, the curb and sidewalk program, the summer street paving project, assigns all City addresses in conjunction with 911 emergency system, and troubleshoots citizen complaints. The Project Manager also shares responsibility with the Project Coordinator for the Department's purchase orders, processing of claims, i.e. consulting services, and all construction projects. The Project Manager also coordinates the allocation of funding from multiple fund sources to ensure adequate monies are available to complete smaller local construction projects.

The MS-4 Coordinator is responsible for compliance with the IDEM/EPA Rule 5 and Rule 13 and is the City's coordinator for the City MS-4 Program, processing approval of Erosion Control Plans, and assuring their compliance during, and post construction.

Traffic Engineering is responsible for operation and maintenance of all of the 56 City-owned traffic signals, 13 school warning devices, 2 four-way red flashers and 2 yellow warning flashers. The Traffic Manager oversees the operation of the City's traffic signal system and coordinates repairs by the City's maintenance contractor. The Traffic Manager is also responsible for signal timings, traffic studies and traffic work orders for sign installation, as well as for the management of emergency vehicle pre-emption systems and twelve City traffic cameras.

The Project Coordinator is responsible for coordinating and maintaining all project files and City As-Built records, sanitary sewer construction and connection applications, excavation and sewer permits, sewer insurance records, managing City telephone system repairs/service, and other duties as required.

The Office Manager from the Sewer Maintenance Department splits her time between the Sewer Department and the Engineering Department, which brings efficiency to both departments due to many similar sewer issues in both departments. The Sewer Maintenance Department has assumed the field locating duties from the Engineering Department for storm and sanitary sewers prior to any excavation in the public right of way. The Sewer Office Manager while in our office reviews Locate e-mails, updates Locate database, gathers historic sewer As-built information for the Sewer staff to locate in the field, and also assists with phone and front counter inquiries from the public. However, because the economy is depressed, the number of locating requests is low compared to the historical high values set in the last 15 years. Depending upon the number of locates, they may impact the amount of maintenance work performed by the Sewer Department

and may require reconfiguration of responsibilities if requests increase.

The Mayor's office provided their secretary for a portion of 2011. On a part-time basis, during the afternoons, the secretary would answer telephones and type correspondence. However, work load in the Mayor's Office required an end to that arraignment. A temporary staff member was added to our office to perform the responsibilities the Mayor's office staff member had covered and also learned the addressing, permitting, and sewer insurance process to enable issuances of address assignments, appropriate permits, and sewer insurance work orders.

Engineering Services

In addition to engineering public works projects such as curb, sidewalks, street improvements, traffic signals, school warning devices and sanitary and storm sewers, the Department also ensures compliance with job-site safety, maintenance of traffic and erosion control issues. Follow-up inspections ensure site restoration.

The Engineering Department also reviews plans for construction of proposed development projects to ensure compliance with developmental guidelines, access, and drainage requirements of the City.

The Department also investigates and works to address all drainage complaints that are received from residents throughout the City to resolve concerns within their neighborhood including local and area-wide drainage, traffic and parking issues.

Engineering is also responsible for the underground public works utility locate service for the City. The facilities and services located are the sanitary trunk sewers, lateral connections, storm sewers, fiber optic interconnects, traffic signal control systems, and the Metronet shared conduit system.

Another responsibility is ensuring contractor and individual compliance with the City of Mishawaka Excavation and Public Works Bonding Ordinances and permitting requirements. Engineering issues and tracks excavation and streets cuts for all city streets and public right-of-way. Excavation Permits are important for protecting the motoring public and the existing infrastructure, plus ensuring proper restoration of street cuts. The Engineering Department provides engineering assistance for municipal utility projects on request and on other major public works capital improvement projects.

The Engineering Department receives copies of accident reports involving City property damage, such as guardrails, traffic signs, traffic signals and other City property for restitution of damaged property through insurance claims or personal payment plans. In 2011 $4,061.63 was collected for damaged property at four locations.

Excavation and Sanitary Sewer Connections for 2011

Sanitary Sewer connection fees are designed to assess a fee on developers based on the size of their property and the impact on the capacity of the sanitary sewer collection system and the Wastewater Treatment Plant. The money collected is used for oversizing and extending sanitary sewers, and improvements at the Wastewater Department.

In 2011 Engineering issued 717 Excavation Permits with fees totaling $10,875.00 for all categories of excavation i.e. telephone, cable, gas, electric, boring, street, sewer, water, irrigation. This is a reduction from 2009 when $12,012 was collected for 624 Excavation Permits. In addition, there were 107 Sanitary Sewer Connection Permits obtained in 2011 that totaled $63,126.35 versus $79,992.19 collected from 182 permits in 2010.

Sewer Insurance Program

The Engineering Department updates all sanitary and storm sewer records and provides administrative assistance to the Sewer Lateral Insurance Program. This program that began in 1986 protects single family residents from paying catastrophic sewer lateral repair costs. The homeowner is responsible for paying all routine sewer lateral cleaning costs, and if the line cannot be opened, the homeowner pays the $250 deductible fee for the sewer lateral repair. The Sewer Insurance Fund pays all costs in excess of the $250 that are required for the repair of a private sewer lateral connection from the foundation wall of the home to the trunk sewer main. The costs of removal and replacement of public streets, curbs and sidewalks as a result of the repair are included.

…protects single family residents from paying catastrophic sewer lateral repair costs

The fund is also used to replace existing sewer laterals that are located within sewer main replacement projects to minimize the need to repair a sewer lateral in a newly reconstructed street. Money collected in 2011 totaled over $225,000 with expenses of over $168,000. Complaints of sewer problems were received from 53 residents in 2011. The monthly fee for residential sewer insurance was increased to $1.50 per month in 2008.

A summary of the 2011 Sewer Insurance Program is provided below:

Summary of 2011 Sewer Insurance Program

Date Initiated	Job Number	Address	Action Taken	Total Cost	Work Completed
1/3/2011	1108	1307 E Fourth St	Line opened, guarantee provided	$0	1/6/2011
1/6/2011	1109	842 E Third St	Contractor repaired lateral	$6,961	1/21/2011
1/17/2011	1110	2503 Normandy Dr	Line opened, guarantee provided	$50	1/17/2011
1/25/2011	1111	112 Monmoor Ave	Contractor lined lateral	$11,725	7/18/2011
1/26/2011	1112	231 Saint Lo Ave	Contractor lined lateral	$3,195	1/26/2011
2/8/2011	1113	309 Milburn Ct	Line opened, no guarantee provided	$0	2/9/2011
2/11/2011	1114	703 Imus Dr	Contractor cleaned and televised	$531	2/11/2011
2/24/2011	1115	215 Ray St	Line opened, guaranteed	$0	2/24/2011
2/28/2011	1116	2813 Lenson Dr	Contractor repaired lateral	$2050	3/12/2011
3/15/2011	1118	505 Queensboro	Line opened, no guarantee provided	$0	3/15/2011

		Ave			
3/16/2011	1119	2939 Colonial Dr	Line opened, guarantee provided	$0	3/16/2011
3/16/2011	1120	128 E Donaldson Ave	Line opened, televised, repair required under floor	$470	4/18/2011
3/21/2011 11	1121	211 Meridian St	Contractors cable stuck in line; retrieved	$0	3/21/2011
3/21/2011	1122	926 Carlton St	Line opened, guarantee provided	$50	3/21/2011
3/22/2011	1123	801 Hendricks St	Contractor lined lateral	$6,404	5/9/2011
3/30/2011	1124	1330 Prospect Dr	Contractor repaired lateral	$7,373	4/8/2011
4/4/2011	1125	901 Hendicks St	Contractor repaired lateral	$1,148	4/4/2011
4/11/2011	1126	201 Towle Ave	Contractor repaired lateral	$4,730	5/5/2011
4/21/2011	1127	2413 E Fourth St	Contractor repaired lateral	$3,257	4/25/2011
5/3/2011	1128	421 N Wenger Ave	Line opened, guarantee provided	$0	5/4/2011
5/18/2011	1129	623 W Battell St	Line opened, guarantee provided	$0	5/18/2011
6/3/2011	1130	811 Queensboro Ave	Contractor lined lateral	$6,010	9/19/2011
6/10/2011	1131	2603 N Main St	Contractor repaired lateral	$2,030	6/28/2011
6/16/2011	1132	918 E Fifth St	Contractor repaired lateral	$5,947	7/14/2011
6/28/2011	1133	652 N Oakland Ave	Line opened, guarantee provided	$0	6/28/2011
6/30/2011	1134	126 N Middleboro Ave	Contractor lined lateral	$7,290	8/2/2011
7/5/2011	1135	415 W Lawrence St	Contractor repaired lateral and lined lateral	$6,349	7/18/2011
7/11/2011	1136	619 Division St	Contractor repaired lateral	$1,739	7/15/2011
7/29/2011	1137	306 Milburn Ct	Contractor lined lateral	$4,930	8/4/2011
7/29/2011	1138	618 E Fourth St	Contractor repaired lateral	$1,847	9/21/2011
8/1/2011	1139	1212 E Mishawaka Ave	Contractor repaired lateral	$1,977	9/21/2011
8/18/2011	1140	1316 Michigan Ave	Line opened, guarantee provided	$0	8/23/2011
8/22/2011	1141	214 Union St	Contractor repaired lateral	$3,659	9/16/2011
8/27/2011	1142	113 Ardennes Ave	Contractor repaired lateral	$2,795	8/26/2011
8/25/2011	1143	527 N Oakland Ave	Line opened, guarantee provided	$87	8/25/2011
8/26/2011	1144	902 W Marion St	Contractor lined lateral	$3,370	9/8/2011
9/9/2011	1146	120 George St	Contractor lined lateral	$7,555	11/19/2011
9/9/2011	1147	728 Studebaker St	Contractor repaired lateral	$5,470	9/15/2011
9/20/2011	1148	1301 E Mishawaka Ave	Contractor lined lateral	$5,750	10/3/2011
9/27/2011	1149	319 W Lawrence St	Contractor lined lateral	$3,485	10/28/2011
10/3/2011	1151	112 E Sixteenth St	Line opened, guarantee provided	$0	10/4/2011
10/6/2011	1152	928 E Fifth St	Contractor repaired lateral	$7,876	10/18/2011
10/17/201 1	1153	733 Lincolnway East	Contractor repaired lateral	$1,668	10/24/2011
10/19/201 1	1154	507 Alabama St	Contractor repaired lateral	$1,156	10/20/2011
10/27/201 1	1155	408 Behney Ave	Contractor repaired lateral	$1,798	11/19/2011
11/2/2011	1156	421 E Broadway St	In process		11/3/2011
11/7/2011	1157	1306 Prospect Dr	Line opened, guarantee not provided	$470	11/8/2011
11/9/2011	1158	824 Calhoun St	Line opened, guarantee provided	$0	11/9/2011
11/30/201 1	1160	117 N Middleboro Ave	Contractor lined lateral	$5,185	1/2/2012
12/9/2011	1162	1316 E Jefferson Blvd	Line opened, guarantee provided	$87	12/9/2011

12/14/2011	1163	416 Imus St	In process		12/15/2011
12/14/2011	1164	503 W Battell St	Contractor lined lateral	$1,650	1/6/2012
12/29/2011	1165	901 Laurel St	Line opened, guarantee provided	$0	1/6/2012

Review of Industrial, Commercial and Residential Developments in 2011

Developers did not submit any sanitary sewer main improvements and/or extensions for 2011. The City experienced mostly rehabilitation of existing sites with a few new commercial and residential homes constructed in existing subdivisions, i.e. AHEPA – Penelope Senior Living Apartments at 810 S. Merrifield and new Cheddars Restaurant at 4919 N. Main Street.

MS4 Municipal Separate Storm Sewer System

In August 2010, the Municipal Separate Storm Sewer System MS4 program underwent its first comprehensive audit by the Indiana Department of Environmental Management. The results of this audit were extremely favorable. The City's program was chosen for recognition at IDEM's annual MS4 meeting in 2011.

On May 24, 2011, representatives from the City and Saint Joseph County presented a paper called *"Partnerships Work – the Michiana Stormwater Partnership"* at IDEM's annual meeting for MS4 professionals and regulators in Indianapolis. The City was further recognized at the annual meeting with a Certificate of Recognition for "Implementation of the MS4 Storm Water Quality Management Plan at the Highest Level." This was the highest honor conveyed on MS4s at the annual meeting and was awarded to less than ten percent of all MS4s in the State.

City personnel worked diligently to ensure that the City's projects were complying with local and State regulations

In November of 2011, the MS4 program underwent its second in a series of three audits of the program. This audit focused on the management of our construction site run-off program. In preparation for the audit, MS4 procedures were evaluated and streamlined. The City implemented a new tracking program for stormwater pollution prevention plans (SWPPPs) and worked closely with an outside engineering firm to develop the capability to integrate SWPPP information with our GIS. As part of the audit, the IDEM inspector requested to visit two of the City's open Rule 5 construction projects and the single private Rule 5 construction project that was open at the time. City personnel worked diligently to ensure that the City's projects were complying with local and State regulations. The overall result of the audit was favorable as none of our program areas received an unsatisfactory rating. However, as with any regulatory inspection of a

comprehensive program, the inspector found a few items that need to be addressed. The City is currently working on addressing those concerns and working with IDEM to implement the required changes.

IDEM will likely conduct its final audit of the current NPDES permit term sometime in 2012. The audit is expected to focus on the detection and elimination of illicit discharges to our storm sewer system. In August, Department of Engineering personnel attended a workshop by IDEM to assist in preparation for the upcoming audit. The City has GPS located the City's stormwater outfalls and sampled at several outfalls that were discharging in dry weather to characterize the nature of discharge. It appears that these discharges are merely groundwater.

The City continued its participation in the Michiana Stormwater Partnership (MSP), which is a consortium of MS4s within St. Joseph County. To ensure consistent messaging and to pool resources, the MSP works collectively to implement the public education and outreach programs required by each entity's NPDES permit. Additionally, the City continued its partnership with St. Joseph County for SWPPP reviews.

Fats, Oils, and Grease (FOG)

The Common Council approved revisions to the Sewer Use Ordinance to cover fats, oils, and grease (FOG) in the summer of 2010. These changes address maintenance requirements and provide a regulatory framework for recovering costs incurred by the City to deal with problem facilities. The FOG program was further refined in 2011. Upon inspection, the FOG from some restaurants was deemed to be a minimal threat to the municipal system. The City has some facilities that are merely storefronts that reheat much of their food or prepare food entirely on disposable paper products. The registration process was modified to omit the fee for these low-impact businesses. A pamphlet regarding the changes and City's expectations was distributed at the 2011 January restaurant license renewal.

Construction Projects

The Engineering Department is responsible for plan development and construction management. Often times these construction projects are funded from several sources. In 2011 projects under construction were funded with Long Term Control Funds, Tax Incremental Funds, Cumulative Sewer, Local Road and Street Funds. Construction projects in 2011 totaled approximately $15.9 million. These projects are highlighted below:

Northwest TIF Projects

The preliminary engineering plans were completed for the widening and the addition of a center left turn lane for the Main Street Corridor extending from Lincolnway on the south to SR23 on the north. This work has been ongoing for several years and the following sections were completed in 2011:

N. Main Street, Mishawaka Avenue to Battell Street, Phase III

The reconstruction of the northbound lanes began with the removal of the existing pavement in March 2011. New storm sewer was installed and connected to the trunk line sewer. The new northbound concrete lanes and center lane were poured in the spring of 2011. Main Street was opened to unrestricted traffic on May 25, 2011. Lawrence and Battell Streets were reconstructed between Main Street and Sarah Street in May and June 2011. Construction was completed with the abandonment of old sewer and the reconstruction of several sewer sanitary manholes in September and October of 2011.

Church-Main Street Connector

The reconstruction of Church Street/Main Street began in June 2011. The northbound and southbound lanes were completely reconstructed and a center turn lane added between Lincolnway and the St. Joseph River Bridge. Two-way traffic was maintained on the west side of Church Street while the northbound lanes were reconstructed and the road widened to accommodate the added center turn lane. New storm sewer was installed along Church Street to handle the additional drainage from the widened roadway. New curb, sidewalk, and traffic signals were installed between Lincolnway and the river bridge. Main Street between First Street and Church Street was also reconstructed. The existing water main, sanitary sewer, and storm sewer on Main Street were completely replaced.

The existing parking lot at the Mishawaka Police station was reconstructed. Additional parking space was added to the existing lot and connected to the traffic signal at the Church/Main intersection. Considerable landscaping was added to the area, including the construction of a memorial for fallen officers at the Police Station, an outdoor cafe seating area on the SW corner of Church/Main, and the reinstallation of the Immigrant Sculptures near the intersection of Main/Front Streets. Church/Main was opened to unrestricted traffic on November 23, 2011.

Main Street -Ardennes to Day

In 2011, the project limits of Main Street from Ardennes Avenue north to Edison Road/Edison Lakes Parkway were expanded to include the section of Main Street from Edison north to Day Road. The existing storm sewer was found to be in poor condition and undersized within the original project limits and a new storm sewer was needed to serve the project improvements. This provided the flexibility to include additional pavement from the Main Street between Edison and Day Road. This project includes a center left turn lane, extension of storm trunk sewer from Ardennes north to Day Road, relocation of deceleration lanes, and many utility relocations. It also requires additional right-of-way due to the construction of the center left turn lane.

Consultants completed right-of-way requirements and identified land owners for acquisition. Legal descriptions, plats, and land acquisition was mostly completed in 2011 with the exception of a few parcels which we anticipate finalizing in early 2012. Construction may be phased over two construction seasons due to the extensive utility relocations. However, we do anticipate construction starting at the south in the 2012 season.

Douglas Medical Park, Phase II (Trinity Place)

This project is the second of two phases to connect Holy Cross Parkway to Fir Road with the construction of Trinity Place. The project was substantially completed at the end of 2011 and was unique since it required special stormwater measures due to crossing Juday Creek. Work included a three-sided precast concrete bridge structure with a span of 32 feet to cross Juday Creek. In addition, concrete curb, pavement, drive approaches and sidewalks were added. Also included were storm sewer, sanitary sewer, 100 feet of jacked 18-inch steel for the water main and a portion of the 10-inch water main as well as miscellaneous associated items. The completion of Trinity Place provides multiple "shovel ready" sites for development in the vicinity of the St Joseph Regional Medical Center.

Edison Road / Grape Road Intersection Improvement

This project involved the construction of an exclusive eastbound right turn lane on the south side of Edison Road located west of Grape Road plus an additional through lane on the south side of Edison Road, east of Grape Road. The project began in late 2011 due to right-of-way and utility conflicts. The intersection of Grape and Edison Road was open to traffic for the holidays; the remaining construction operations, including bituminous pavement, roto milling and resurfacing, will begin in early 2012 as the weather permits.

Edgewater Drive

This project extends from John Street to Mishawaka Avenue and from the Mishawaka Avenue Bridge to 312 feet west, and John Street from Edgewater Drive to Park Avenue. It began in July 2011 and was completed in October 2011. The project included bituminous pavement, roto milling and resurfacing, storm sewers, pavement markings, landscaping, and concrete sidewalk, curbs, handicap ramps, and drive approaches. The most challenging portion of the project was the construction of a 20 foot deep, precast concrete storm sewer outfall structure in the west bank of the St. Joseph River. The structure provided a direct stormwater discharge for the new storm sewer installed in the project.

First and Hill Street Improvements (Mishawaka River Center Apartments)

The rehabilitation of the former Mishawaka High School Building into apartments for senior living

The rehabilitation of the former Mishawaka High School Building into apartments for senior living was the focus of the Community Redevelopment Department in early 2011. Named the Mishawaka River Center Apartments, this senior living center project, made it apparent that new utilities were required for the project. Hill Street and First Street were identified as the new corridor to provide sanitary sewer, storm sewer and water to the facility. In addition, on-street parking will be slightly reconfigured and include new street pavement and sidewalk since sections are in poor condition. Therefore in early summer of 2011, W.R. Armstrong was contracted to design the utility improvements in addition to reconfiguring the pavement, concrete curb and gutter, and sidewalk within the existing right-of-way of Hill Street from Lincolnway to First Street and First Street from West Street to Spring Street. These improvements were split into two phases of construction.

Specifically in the fall of 2011, John Boettcher Excavating was the successful quoter to install the first phase which included 140 LF of new 8 inch gravity sanitary sewer within Hill Street extended from First Street's existing gravity sewer and temporary pavement patch. The second phase of the Improvement Project includes new storm sewer, concrete curb and gutter, pavement, and sidewalk for First Street from Spring to West Street and Hill Street from First Street to Lincolnway with construction in summer of 2012.

Holy Cross Parkway Lift Station and Forcemain Project

A regional sanitary sewer lift station was constructed to service the new hospital and also the anticipated growth of the City's north-east area. With the completion of the Lift Station in 2011

and all phases of the 2 mile long 24 inch HDPE Forcemain completed in early 2011, this new facility was brought on-line and enabled two existing lift stations (Autumn Lakes Apartments and Douglas Road at WSBT) to be eliminated. This will reduce operating and maintenance costs and provide ample capacity for the growth north-east of the City. A subsequent project will reroute the discharge from the University Drive Lift Station into this new facility utilizing the gravity sewer in place in Douglas Road. When the University Drive Lift Station Project is complete the combined flow removed from the North Main Street Trunk Sewer will provide additional capacity for growth in the area north of SR 23.

River Crossing No. 2 Expansion and Modification of CSO 19

This project involved three 24 inch HDPE river crossing barrels and associated headworks and tailworks structures that will serve to accept the flow from the Holy Cross Parkway Lift Station Forcemain, which went on line in February 2011. The project connects Central Park control structure from the IIF project completed in 2010 to the junction chamber at the Police Station, which was constructed through the Front Street Reconstruction Project which interconnects this flow with the existing River Crossing No. 2. With this in place and connected, as the other systems are separated or abandoned by the City as part of the Long Term Control Plan, the combined sewer overflows have been redirected from CSO #19 to the expanded river crossing. This redirection allows its treatment at the Wastewater Facility in lieu of relief at the CSO 19 structure. Final separation and pipe abandonment was completed in October 2011.

PUBLIC WORKS PROJECTS

Summer Street Paving Program

The Engineering Department assisted in overseeing 36,950 linear feet of street milling and resurfacing projects and 570 linear feet of alley paving. The following table summarizes the streets that were resurfaced in 2011. All were either edge milled 6 feet along the curb line or the entire surface removed to retain as much curb exposure as possible.

2011 Street Resurfacing Summary

Street Name / Section	Length
Alford Street – Lincolnway East to Fourth Street	800
Ballard Avenue – Vistula Avenue to Cottage Avenue	1700
Byrkit Avenue – Sixth Street to Twelfth Street	2050
Colfax Avenue – Chestnut Street to Went Avenue	950
Day Road – Fir Road west 500 feet	500
Day Road – Grape Road to Main Street	1300
Day Road – Windingbrook west 2300 feet	2300
Eighth Street – Logan Street to West Street	2800
Elder Street – Lincolnway East to Norton Court	450
Fourth Street – Main Street to West Street	1400
Fourteenth Street – West Street to Main Street	1500
Geyer Avenue – Dragoon Trail to Delaware Street	700
Grove Street – Oak Street to Willow Street	325
Harrison Road – Oakside Avenue to Blackberry Road	2000
Jefferson Boulevard – Liberty Drive intersection	250
Logan Street – Saint Joseph River north to railroad tracks	3800
Mason Street – Mishawaka Avenue to South of Prospect Avenue	800
Mishawaka Avenue – Ann Street to Charlotte Street	800
Mishawaka Avenue – Bridge west to Cedar Street	1000
Mishawaka Avenue – Bridge east to Byrkit Avenue	2100
Orange Avenue – Lincolnway East to Third Street	750
Pleasant Point Court – Ballard Avenue to Oakland Avenue	1300
Queensboro – Dragoon Trail to Delaware Street	700
Rosemont Place – Bennington Drive SE to Dead End	1200
Spring Street – Fourteenth Street to Sixteenth Street	700
Spring Street – Sixth Street to Eighth Street	600
Third Street – Mill Street to Main Street	350
Union Street – Fourth Street south to Dead End	375
West Street – Sixth Street N to Railroad Tracks	250
White Dover Drive – Rosemont Place to Stonegate Drive	300
Wood Lane – Dragoon Trail to Trail Ridge West	1000
Total Linear Feet	36,950
Total Cost of Resurfacing	$342,082.26
Total Cost of Milling	$200,787.75
Grand Total for Summer Street Paving Program	$543,136.98

Alley Paving Program

The Alley Paving Program pays half the cost of paving alleys with residents who request their alley be paved. Typically, a field inspection of the alley is conducted to determine the feasibility of paving the alley. A list of all property owners adjacent to the alley is obtained from the County Assessor's Office. This information is provided to a designee of the property owners who is responsible for collecting the cost per linear foot assessment from each property owner along the alley. The residents along the alley benefit from this work because of the reduction of the dirt and dust generated by traffic. The Street Department also benefits by not having to grade or oil the paved alley for at least ten years. There are 256,178 LF or 48.52 total miles of alley that are open to the public, and a significant number of these have been paved by property owners. In 2011 the City paved one alley located between Byrkit Ave, Victoria Ave, 3rd Street and 4th Street approximately 570 feet in length. The City has worked with the property delegates for three additional alleys to be paved in the spring of 2012.

Curb and Sidewalk Program

Instituted in 1986, this program encourages single-family homeowners to repair or replace deteriorated public curb and sidewalks adjacent to their property and provides for a 50/50 split of the repair cost of curbs, sidewalks and drive approaches between the homeowner and the City. Since the beginning of this program, the cost for reconstruction of approximately 81,068 LF of new curb and sidewalk has been shared by the City and its residents. This year a total of $92,528.75 was spent in neighborhoods on curb and sidewalk improvements.

First Time Homebuyers Project

The First Time Homebuyers Project for 2011 consisted of 3 lots at various locations on the south side of Mishawaka. As part of the Curb and Sidewalk Program the contractor installed the concrete work at each of these locations including the curb, sidewalk, steps, patio and drive approaches at each of these locations.

Location	Amount
Jefferson Blvd – Installed approximately 500 linear feet of sidewalk along the north side of Jefferson Blvd from Clay Street to the east.	$17,500.00
West Street – replaced existing curb and sidewalks along both sides of West Street as required from Ninth Street south to Fourteenth Street. This project included upgrading all handicap ramps to the current ADA standards and gain curb exposure along the street to aid in drainage.	$209,545.61
Various locations – Improved handicap ramps to meet the current ADA standards and provide specific routes for residents to public facilities.	$18,147.82
Brookside Subdivision – Replaced damaged sidewalk along three streets within the subdivision and upgraded the handicap ramps per ADA.	$36,944.00
Various locations – Replaced damaged curb and sidewalk as a	$15,443.74

result of accident reports and winter damage.	
Merrifield Avenue – Stanley Street to Jefferson Blvd – Placed new sidewalk along the east side of Merrifield Avenue to connect the improvements on Stanley Street to Jefferson Blvd.	$17,240.00
Installation of the Qwik Kurb Barriers at the Norfolk Southern Railroad at Russell Street and Logan Street.	$20,151.16
Total	$334,972.33

Milburn Blvd Landscape Improvements

As part of the Milburn Blvd Improvements the seventeen islands located in the center of Milburn Blvd from Logan Street to Ironwood Drive were landscaped with a variety of trees. These islands were planted with seven varieties ranging from 2 inch ornamental trees to 51/2" diameter canopy trees. The varieties chosen will provide seasonal interest throughout the year beginning in the spring with the 2 types of ornamental crabapple trees, Snowdrift, and Prairiefire; flowering

with white and pink flowers. The foliage of the Crimson Maple, Whitespire Birch, Black Tupelo, State Street Maple and a new hybrid Accolade Elm will provide texture and color throughout the summer. The fall colors will be vibrant yellows, reds, and some green.

Sidewalks/ADA Transition Plan

The City of Mishawaka completed the ADA self-evaluation of all City facilities outside of the public right-of-way (ROW), policies, and procedures and prepared a Transition Plan that outlines the necessary steps to be fully compliant with the requirements of Title II of the ADA. The City will strive to include annual budgetary allotments to make required improvements that will

eventually make the various facilities fully accessible. Emphasis is given to the improvements that most impact the ability of persons with disabilities to access facilities or programs. In addition to City facilities, the self-evaluation reviewed existing City policies and procedures within each department. Following this review, recommendations were made to improve accessibility of programs for each department.

It is the goal of the City to make facilities for all services, programs and activities fully accessible within 30 years. This will be largely dependent on a number of economic factors and future changes to the ADA Accessibility Guidelines (ADAAG) or other unforeseen requirements that would necessitate additional improvements to City facilities. The results of the self-evaluation identified a number of barriers at City facilities. The estimated cost to correct these deficiencies is $3,536,000 plus public ROW. The degree to which these barriers limited accessibility and their priority for corrective action was subjectively categorized as “high”, “medium”, or “low”. The actual implementation schedule, budgeting, and prioritization is up to the administration and is likely to be impacted by complaints, new regulations and requirements, and availability of funding. A report to the City Common Council will be presented for approval and adoption in March of 2012.

The next steps involve self evaluation of approximately 1300 intersections and incorporating the 60 public survey responses regarding sidewalks where feasible. A separate self-evaluation and transition plan will be developed in 2012 for City facilities within the public ROW.

Juday Creek Force Main Rehabilitation (SRF Funds)

This Project was selected by the IDEM SRF Loan Program to be partially funded with a grant from the Federal Stimulus Package and the balance with the SRF Loan Program. Originally 11,086 lineal feet of 18” Ductile Iron Forcemain was planned for rehabilitation with structural cured-in-place (CIPP) lining from the Juday Creek Lift Station to Lowell Avenue. As the project progressed, further investigation and testing revealed that this pipe was in satisfactory condition north of Catalpa. The 18” CIPP lining was reduced to 6,122 lineal feet and instead 2,650 lineal feet of 24” pipe on Russ Street from Liberty to Christyann was rehabilitated along with the manholes. This pipe had previously been targeted for rehabilitation in a future project. In addition, 1,888 lineal feet of 18” forcemain was replaced with a 24” gravity sewer main along Lowell and Clay Street. This project requires extensive bypass pumping to accommodate the flows currently handled by the lift station. The existing pumps were upgraded to VFD’s and associated controls within the Juday Creek Lift Station. This project was completed in 2011.

LONG TERM CONTROL PROJECTS

The City's Long Term Control Plan (LTCP) was designed to improve wastewater treatment and the sewer collection system to reduce the overflows from 50 per year in 2008 to less then 1 per year upon the plan's complete implementation. Improvements were previously completed at the Wastewater Treatment Plant and our attention is now directed to the collection system, which in total diverts 350 million gallons of combined sewer overflow (CSO) to the St Joseph River during wet weather. 2010 construction concentrated on the Milburn Sections A, B, C, D, E, and F of the collection system. 2011 concentrated on the cured in place pipe (CIPP) lining rehabilitation.

Milburn Boulevard Area Sewer Improvement Projects

The first area identified was the Milburn Area which is bounded by Logan Street, Ironwood Drive, Dragoon Trail/Panama Street and the St. Joseph River. This area is 348 acres with approximately 1,300 residents. The projects involved a design of a new separate storm system while utilizing the existing combined sewer as the sanitary sewer system after cured in place pipe (CIPP) lining rehabilitation. A new underdrain system was included to protect homes from foundation issues resulting from sealing the ground water from the historical outlet it found in the old deteriorated sewer system. With adequate funding, all sections are scheduled for completion by 2026.

2011 was a continuation of work within the Milburn area which included cured-in-place pipe lining (CIPP) rehabilitation of all the original combined sewers that were repurposed as strictly sanitary sewers due to the 2010 projects installing separate storm sewers and underdrains to address high groundwater issues. CIPP Phases I and II will be completed in the spring of 2012. This included the rehabilitation of the Biosolids forcemain from the Wastewater Treatment Plant to the Biosolids Facility. During lateral investigations in the Phase I CIPP project, it was determined that the laterals on Lincolnway West required rehabilitation. This work was bid in the fall of 2011 and will be constructed in the spring of 2012.

The Division G Project - River Avenue Area bound by the St Joseph River, Railroad and Ironwood Drive, is schedule after the sanitary sewer main CIPP lining completion due to River Avenue lift station rehabilitation being a portion of the Milburn G Project. The remaining construction phases will address the approximately 1300 laterals and the last Milburn Section G.

Wilson Boulevard Area

Design consultants completed Topographic Survey for the redirection of the four Wilson Boulevard CSOs to river crossing 3. Flow monitoring and final design will be completed in 2012 and construction anticipated for 2013.

Phasing and Implementation Plan for Remaining LTCP Elements

The preliminary engineering was completed in 2011 for the remaining elements of the LTCP. However, it was determined that the several elements initially identified in the study required modification due to high groundwater, existing infrastructure conflicts, grade limitations, and overall maintainability issues. The following table outlines the phasing with brief descriptions of the revised Long Term Control Plan**.**

Long Term Control Plan - Recommendation and Implementation Plan

Location	Project	Description	Capital Cost Estimate[1] ($Millions)	Size[2]	Start Date[3]	End Date[4]
Milburn Boulevard Area	Division G	Sewer separation and rehabilitation South of the St. Joseph River, bounded by Ironwood, River Ave, and Lincolnway Ave.	2.6	N/A	2011	Dec 2026
Wilson Boulevard Area	Wilson Boulevard	Parallel interceptor to redirect flows from CSO 004, 005, 006, 007, and 008 and consolidate into one overflow.	5.0	N/A	Oct 2011	Dec 2020
River Center CSO 009	Fourth St. Storage/Conveyance Tunnel (Phase I)	Storage/Conveyance Sewer from Main St. to the WWTP	22.6	96"-120"	Feb 2012	Dec 2020
	Fourth St. Storage/Conveyance Tunnel (Phase II)	Storage/Conveyance Sewer from Merrifield Ave. to Main St.	18.7	72"-120"	Dec 2014	Dec 2022
	Fourth St. Storage/Conveyance Tunnel (Phase III)	Storage/Conveyance Sewer from Fourth Street to Merrifield Park (Linden Ave.)	5.7	60"-84"	Dec 2015	Dec 2023
East Area	Linden Area Sewer Separation (Phase I)	Sewer separation of approximately 152 acres north of Lincolnway East between Merrifield Park and Roosevelt Ave.	4.8	N/A	Dec 2014	Dec 2028
	Linden Area Sewer Separation (Phase II)		4.8	N/A	Dec 2016	Dec 2028
	Linden Area Sewer Separation (Phase III)		4.8	N/A	Dec 2018	Dec 2028
	Linden Area Sewer Separation (Phase IV)		4.8	N/A	Dec 2020	Dec 2028
	Alley Conveyance Sewer from Capital Ave. to Merrifield Ave.	Conveyance from the outfall of the Mariellen Lift Station to the storage/conveyance sewer along Merrifield Ave. at Fourth St.	5.8	30"-48"	Dec 2015	Dec 2028
	Northeast River Crossing to Merrifield Park (Linden Ave.)	Conveyance sewer which intercepts flow from the Daisy Road Lift Station Forcemain/Northeast River Crossing	2.3	42"-48"	Dec 2021	Dec 2029
Central Park Area	Daisy Road Lift Station, Forcemain, and RC-5 (Phase I)	Lift Station with 15.8 MGD capacity.	9.3	18"-24"	Jan 2021	Dec 2027

[1] Capital cost includes 20% contingency and 20% engineering, admin, and legal costs. ENR 8000
[2] The final facilities will be sized within the stated ranges to achieve zero overflows during the typical year (1992). The sizes shown were preliminarily determined by subbasin flow monitoring during preliminary design of each project component.
[3] Engineer under contract to design the facility.
[4] Facility is operational.

Northwest Trunk Gravity Sewer Rehabilitation (Wastewater Funding)

This project involved the cleaning and rehabilitation of approximately 2,600 lineal feet of 30" and 36" reinforced concrete pipe in Benton Street from the CN Railroad to River Crossing No. 4 as well as the cleaning of River Crossing No.4. This pipe was lined with Cured in Place Pipe (CIPP), and the manholes have been rehabilitated by coating them with a structural polyurethane product. Final cleaning and inspection of the three River Crossing No. 4 barrels revealed they were also in need of rehabilitation. The two larger barrels, 18 inch and 14 inch have been rehabilitated. The smaller 8" barrel is still under investigation for an appropriate rehabilitation method. Additionally, video inspection of the downstream pipe within the Wastewater Treatment Plant indicated significant deterioration. This included approximately 300 lineal feet of 36" pipe and 100 lineal feet of 42" pipe, four large junction chambers as well as the headworks and tailworks of River Crossing No. 4. This project is complete with the possibly exception of the rehabilitation of the 8" siphon.

Highway Safety Improvement Program (HSIP)

The Engineering Department has implemented four projects as part of the Highway Safety Improvement Program through MACOG with federal funds. This Program's goal is to achieve a significant reduction in traffic fatalities and serious injuries on public roads. The four projects involving guardrail placement, delineator installation, traffic signal installation, and school warning flasher replacements are identified as follows:

Replaced 768 feet of existing guardrail along the north side of Dragoon Trail with new guardrail approximately 2,194 feet on both sides of Dragoon Trail to protect existing residential homes, a public park, an athletic field and a utility pole line. Approximately 458 feet of existing fence on the north side of Dragoon Trail and Logan Street intersection was removed and replaced with 72" chain link fencing. On the north side of Dragoon Trail, a new fence, signal support foundation, signal handhole, controller cabinet foundation, controller cabinet and signal mast foundation were installed. The installation of the traffic signal is scheduled for completion in April, 2012.

Placement of delineators along the north and south edge of pavement along Dragoon Trail from Russell Avenue to Clover Road, approximately 18,000 linear feet, is scheduled for the spring of 2012.

Replacement of ten out of twelve existing school warning flashers from incandescent to LED lighting including a beacon located on the back of the assembly identifying to traffic they are traveling within a school zone is scheduled for completion in 2012. The change to LED will allow a brighter display during all weather conditions providing a greater distance of visibility. The greater distance allows for the vehicular traffic to have an advantage of recognizing the school zone sooner and providing the highest level of protection for pedestrians. In addition to the additional safety, the LED provides a longer life, and less energy. The remaining two school warning flasher locations have been included in previous or scheduled City projects and offer this same level of safety.

Quiet Zones – Train Whistle Regulation

Mountable Median Channelization Devices

The Federal Railroad Administration (FRA) "Use of Locomotive Horns at Highway-Rail Grade Crossings" Final Rule became effective on June 24, 2005 and pre-empted existing state and local laws governing the sounding of locomotive horns. In accordance with Final Rule, Section 222.43, the City of Mishawaka submitted the Notice of Intent (NOI) in 2008 to continue its pre-rule quiet zone and filed a detailed plan for quiet zone improvements. These proposed safety measures were presented to the public at a Public Hearing in 2009 and at a Public Hearing on a Resolution of the Common Council for the permanent closure of Wells Street and the installation of mountable median channelization devices at the S. Main, Russell, and Logan Street crossings with the Norfolk and Southern Railroad, and at the Jefferson Boulevard crossing with the Canadian National Railroad.

Traffic Engineering Services

Traffic Engineering is responsible for the operation and maintenance of 56 city-owned traffic signals. In addition, there are 13 school warning devices, two four-way red and two yellow warning flashers under the responsibility of Traffic Engineering. Traffic Engineering received several requests for additional or modified signage through the Mishawaka Police Department, concerned motorists, and citizens. All requests are investigated by Engineering. In 2011, these requests resulted in the issuance of 33 work orders for the installation or modification of signage and pavement markings.

Traffic Signal and Flasher Maintenance

In 2011 one hundred seventy seven (177) traffic signal repairs were completed. Also maintained were luminaries, guardrails and all 56 signal cabinets. The Engineering Department also resolved numerous 4-way flash problems involving the resetting of traffic controllers and conflict monitors.

Signage

New sign retro-reflectivity standards are required by the Federal Highway Administration (FHWA). This proposed change will promote safety while providing sufficient flexibility for agencies to choose a compliance method that best fits their specific conditions.

Indiana Safe Routes to School Program

Engineering continues to work with the State of Indiana to establish a healthy and safe environment for school children through the Indiana Safe Routes to School Program. This

program allows the City to apply for a grant each year to encourage kids to walk or bike to school reducing traffic congestion, fuel consumption, air pollution while increasing the activity level of the children.

The City of Mishawaka is classified as an all-walk-on school system with minimal bus transportation for the students. In 2010 we were awarded a grant for Emmons School. In 2011, Battell Elementary School was selected for this program with $230,075.00 available for improvements to sidewalks and crossings located in the Battell Elementary School area.

Each of these grants have allowed the city to replace deteriorated sidewalk, improve drainage situations, install ADA approved handicap ramps and to provide educational materials to the children in cooperation with the DARE officers of Mishawaka.

Working collectively with school officials, parents, and the Mishawaka Police Department, it is our intent to design a safe route that is well maintained so that kids may easily walk or bike to and from school. Each school within Mishawaka has been examined to identify a safe route for that particular school. A different elementary school will be targeted each year throughout the life of this program.

School Signage

Every year the Engineering Department inventories all traffic control signage near public and private schools. This process involves replacing damaged, faded or missing signs and repainting school crosswalks. This enables Engineering to maintain safe and effective traffic control signage that follows the Federal guidelines as outlined in the Indiana Manual on Uniform Traffic Control Devices for all schools in Mishawaka.

Traffic Studies

Requests for four-way stops, time limit parking, restricted parking, etc. require a recommendation by the Traffic Commission and in many instances, action by the Mishawaka Common Council before implementation. The Engineering Department conducts a thorough investigation to determine the merits of each request. These studies are then presented to the Traffic Commission for review and recommendation and to the Common Council. Upon adoption of an Ordinance by the Mishawaka Common Council, the Engineering Department issues a work order to install the appropriate signage. In 2011 the Council approved the following changes that were recommended by the Traffic Commission: (1) The North and South Side Speed Study recommendations from First Group will lead to speed limit changes on both the north and south side of Mishawaka. These changes are due to speed variations between city and county roads that have been viewed as speed traps by the motoring public. (2) A second recommendation was to add an additional school speed limit sign (20 mph) “When Children are Present” for Liberty School on Division that was placed before the school flasher. Parking restrictions were also added on the south side of Pregal Drive between Division Street and the school entrance.

The Engineering Department issued 17 dumpster permits in 2011. The Engineering Department also received requests for additional signage from the Street Department and the Mishawaka Police Department in various neighborhoods. Speed limit signs were added at Kings Court and on Somerset Avenue.

The Engineering Department continues to work with the Mishawaka City Police Department to resolve truck problems. With several streets closed, or in various stages of repair during the 2011 construction year, excessive truck traffic occurred on non-truck route streets. Police enforcement assisted in curbing these truck problems in residential areas.

MACOG (Michiana Area Council of Governments) continues to partner with the City to gather traffic count data for various Mishawaka locations. This data assists in tracking changes in traffic patterns and may possibly be used to justify changes in infrastructure. In 2011 MACOG provided data for speeds and traffic accidents for the North and South Side Speed Study.

A CMAQ grant was approved in 2009 to update the traffic signals on Church/Union Street from Front Street to Dragoon Trail. Construction for this closed-loop traffic signal central control system is scheduled to begin during the 2012 construction season for this corridor.

Disabled Parking Approvals

With the assistance of the Mishawaka Police Traffic Division, the Engineering Department manages the application process for designated disabled parking spaces on public streets. In 2011 the Board of Public Works and Safety approved the designation of 17 new disabled parking spaces and the removal of 6 spaces that were no longer required.

2012 - Construction Projects

Bennington Drive

With the improvements along Capital Avenue, Twelfth Street/Harrison Road and replacement of Fire Station No. 4, it was found desirable that Bennington Drive be extended a total length of approximately 800 feet. The primary objective of this extension will be to access the fire station. The recreational facilities impacted with the extension will be replaced in-kind. This includes shifting the football field and basketball court slightly north, and a new shelter/restroom building. The existing parking will be replaced by providing a pedestrian access to the school parking lot and fire station training/visitor parking lot. In addition, the intersection of Harrison Road and Bennington Road will be signalized. The project will be bid in March with construction starting in May.

Twelfth/Harrison Road Reconstruction

The Indiana Department of Transportation's improvements along Capital Avenue including an underpass with the Norfolk-Southern Railroad are scheduled to be completed late in 2012. The City identified the Twelfth Street Corridor from Union Street to Blackberry Road, as needling upgrades to carry the increased traffic volumes through the corridor. The City completed a corridor study identifying the improvements along East Twelfth Street/Harrison Road (Lexington

– Blackberry, Phase I), which will consist of widening and addition of a center turn lane from Lexington Drive to the intersection of Blackberry Road, for a total length of approximately 5,200 feet. The City was successful in programming this project for Federal funding through MACOG and will continue to seek Federal funding for subsequent phases. The design of the project is approximately 70% complete with the R/W acquisition commencing at this time and anticipated to be completed by the end of 2012. The project is scheduled for construction the spring of 2013.

Church/Main between LW and Norfolk and Southern Railroad

The Church Main Phase 3 project will extend the 5-lane section south from Lincoln Way to the Penn-Central Railroad Overpass. The pavement section will include four through lanes and one center left turn lane. The addition of the center left turn lane will allow vehicles traveling on Church Street to make left turns at the Fourth Street, Third Street and Lincoln Way intersections, alleviating congestion in this vital corridor of the City. South of Fourth Street, a 3-foot shelf will be placed at the back of curb to facilitate snow removal. The existing concrete pavement will be replaced and the original storm trunk line will be used in place. Lighting and landscaping will be incorporated into the design. Traffic signals at the intersections of Third Street and Lincoln Way will be replaced and the signal at Fourth Street will be modernized as a part of this project.

Battell Elementary - Safe Routes to School Program

The purpose of this project, funded from INDOT`s SRTS Program, is to provide school aged children adequate sidewalk, curb ramps, and crosswalks to safely walk/bicycle to and from school or other activities. The City of Mishawaka is an all-walk-on school system with minimal school bus transportation for the students. Sidewalk improvements will be performed along the path utilized by the students to access Battell Elementary school and will include ADA-compliant curb ramps, new sidewalks, signage, and pavement markings at crosswalks. The design of the project is underway with construction anticipated in July of 2012.

Main Street -Ardennes to Day

In 2011, the initial project limits of Main Street from Ardennes Avenue north to Edison Road/Edison Lakes Parkway were expanded to include the section of Main Street from Edison north to Day Road. Specifically, the existing storm sewer was found to be in poor condition and undersized within the original project limits and a new storm sewer would be needed to serve the project improvements. This provided the flexibility to include additional pavement from the Main Street between Edison and Day Road. This project includes a center left turn lane, extension of storm trunk sewer from Ardennes north to Day Road, relocation of deceleration lanes, and numerous utility relocations.

Additional right-of-way is required due to the construction of the center left turn lane. Consultants completed right-of-way requirements and identified land owners for acquisition. Legal descriptions, plats, and land acquisition was mostly completed in 2011 with the exception of a few parcels which we anticipate finalizing in early 2012. Construction may be phased over two construction seasons due to the extensive utility relocations. However, we do anticipate construction starting in 2012.

FUTURE PROJECTS

Project	Completion Date	Amount
Northwest TIF Area		
Third Street Improvements - Cedar St. to East of Merrifield	Oct 2012	$1,250,000
First Street Improvements – Main St. to West St.	Nov 2012	$975,000
Fourth St. Conveyance 120” Sewer – Main St. to WWTP Design	Jan 2013	$1,475,000
Fourth St. Conveyance 120” Sewer – Main St. to WWTP Constr.	Aug 2015	$22,600,000
South Side TIF		
Bremen Highway South Gateway- US 20 Bypass to Ireland	Jul 2013	$1,350,000
Public Works Projects		
Merrifield Ave. Curb and Sidewalk – Fifth St. to Eighth St.	Sep 2012	$175,000
LPA Projects (20% Local Share)		
Fir Road, Toll Rd Bridge to south of Cleveland	Nov 2013	$1,600,000
Church/Union Signal Modernization – LWE to Dragoon Tr.	Jun 2013	$1,375,000