

Village of Carol Stream

CAPITAL IMPROVEMENT PROGRAM



Southwest Water Main Extension Project

Fiscal Years 2013/14 Through 2022/23

On the Cover

This project was first studied in 2006 to help water pressure on the west side and provide clean water in case of well contamination. In 2007 the project was budgeted with a \$1.9 million rebate from the DuPage Water Commission for use of Lake Michigan Water. The Village hired engineering consultant, Baxter & Woodman to begin the design in 2007. Right of way issues halted the project in 2010 and alternate routes were investigated. The design was amended in 2010 and 2011 when homeowners on Trieste Lane and the Benjamin School offered to allow the water main to be located on their properties. Intergovernmental Agreements were entered into between the Village of Carol Stream and Wayne Township Road District in 2009 and again in 2011. Three right of way dedications and four property easements were obtained between 2008 and 2012 paving the way for construction. The project was completed in 2012 for \$1.1 million and consists of over 8,000 feet of water main, 25 water valves and 22 fire hydrants.

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TO: Mayor and Trustees

FROM: Joseph E. Breinig, Village Manager 

RE: FY13/14 – FY22/23 Capital Improvement Program

Transmitted with this letter is the Village's FY13/14 Capital Improvement Program (CIP) document. The CIP takes a comprehensive look at the Village's infrastructure and facility needs for the next 5, 10, and 20 years. A CIP is a multi-year plan that forecasts spending for all anticipated capital projects. The CIP enables the Village to identify needed capital projects, prioritize their timing and coordinate their financing. An effective CIP consists of both an administrative process to identify the location, scale and timing of needed capital projects and a fiscal plan to provide for the funding of those projects.

The CIP links the Village's capital planning and budgeting functions. The CIP can help implement past policy decisions by establishing priorities among existing and competing capital needs and can also be used to measure and evaluate the merits of new proposals.

Traditionally, a CIP covers a period of 5-6 years. Because a dedicated and reasonably predictable funding source has not been identified to fund the long-term replacement and rehabilitation of general infrastructure assets, the scope of this document is expanded to provide a longer-term perspective. Therefore, the plan, as presented, also includes a 6-10 year look with estimated costs, and an 11-20 year projection of possible future projects. This is intended to better assist the Village Board in the planning and decision-making process.

The document is presented to you as a supplement to the operating budget. Since there is a direct correlation between the CIP and the operating budget, we have incorporated the operating impacts resulting from CIP projects into the operating budgets. Examples of operating impacts are decreased road maintenance costs due to reconstructions or increased operating costs due to the acquisition of an additional facility.

FY13/14 - FY17/18

The first five years of the Plan includes 32 projects in all construction categories with a total estimated cost of \$38.8 million.

Roadways

The Roadways category includes projects at an estimated cost of \$22.7 million and receives all of its funding support from the Village's Capital Projects Fund and Motor Fuel Tax Fund. The annual Flexible Pavement Program is the primary focus of the road program and makes up 74.0% of all projected expenditures over the next five year period. As the Capital Projects Fund portion of the CIP predominantly relies on surplus transfers from the General Fund, the Flexible Pavement Program was reduced significantly in scope during fiscal years FY11 and FY12, during the most uncertain periods of the Great Recession. Since that time, the revenue outlook has improved, moderate General Fund surpluses have again been generated and cash reserve balances have remained strong.

As a result, beginning in FY12/13 and continuing into FY13/14, a full complement of roadway improvement projects has been undertaken, including the largest Flexible Pavement program in the Village's history scheduled for the 2013 construction season. This will begin to reduce the backlog of previously deferred projects and provide future financial benefit to the Village as continued deferral of needed roadway maintenance invariably comes at an added future cost. For the FY13/14 through FY15/16 Financial Plan, the programmed investment in roadway system improvements averages nearly \$4.5 million per year.

Water and Sewer Utilities

The Water and Sewer Utilities category includes a number of projects with a total projected cost of \$15.2 million over the next five years. A major focus over the next decade will involve the systematic rehabilitation and improvement of major equipment, buildings and processes at the Water Reclamation Center. Following a Facility Inspection Report completed in late 2010, many of the existing plant's mechanical and processing systems are at or near the end of their useful lives and require replacement or rehabilitation. These improvements will be completed in a phased approach based on recommendations and findings contained in the report. Funding for these improvements will be made from Water & Sewer Fund Reserves. The highest priority projects include rehabilitation of the plant head works, which has been substantially completed in FY12/13 and Phase II Aeration System Improvements and Phase I Pumping Station Improvements which are scheduled for FY13/14 and FY14/15 respectively.

Sanitary sewer system evaluation studies (SSES) will continue over the next several years to establish an updated sanitary sewer basin map, to perform various assessments of the level of inflow and infiltration (I&I) of storm water into the system and to develop a plan

to reduce the level of I&I and its negative effects (i.e. basement backups, manhole overflows, surcharges, and treatment plant capacity issues).

Work will begin on the design for the replacement of the Schmale Road water main which has experienced a number of significant breaks over recent years.

Facilities

The Facilities category includes a number of projects budgeted for the FY13/14 fiscal year which include the replacement of the salt dome roof and the Public Works North Garage roof at the Public Works Center property. Also included is the construction of a climate controlled storage facility on the property where the Fullerton Avenue water tower is located.

Storm Water Utilities

FY13/14 will see the demolition and close-out of the fourth home purchased in the Klein Creek flood plain. The acquisition of these properties by the Village were entirely financed by external grants and without the use of Village funds. The first few years of the CIP also include storm water studies at Tubeway and Westgate and in the southeast portion of the Village.

Additionally, the Village is working cooperatively with the Park District and DuPage County as work begins on the Armstrong Park Flood Control Reservoir Project.

Funding Sources / Cash Flow

Funding for the roadway, storm sewer and facilities programs comes primarily from the Capital Projects Fund. Historically, in addition to funds received through grants and other agencies, the Capital Projects Fund relies solely on transfers from the General Fund to support the bulk of the Village's infrastructure projects and maintenance programs. These transfers are generally supported by any annual surplus generated by the General Fund. As presented in this report, adequate reserves are projected be sufficient to meet all projects identified in the first 5 years of the CIP. Our longer term focus on projected future funding requirements will provide us ample insight into changes in the financial climate and whether or not we are meeting the benchmarks needed to sustain the program into the future. This level of planning is designed to assist the Village in taking the necessary actions in advance of an impending financial crisis so that it can be avoided.

While external threats to revenues, such as legislative changes to State-shared revenue distributions, have the potential to impact the long-term viability of our CIP, there is no expectation that planned projects and improvements will be impacted in the short-term. A review of cash reserve requirements and an expected General Fund surplus for FY12/13 will result in an additional \$2.1 million transfer to the Capital Projects Fund prior to April 30, 2013.

Capital improvements to our water distribution and sanitary sewage collection and treatment systems are funded entirely from user fees billed to customers on a monthly basis. Billing rates are established to cover both the day-to-day costs of operating these systems as well as to fund capital replacements and rehabilitations as needed.

Grants

The Village actively solicits and receives financial assistance or engages in partnerships with other units of government to secure grant or other cost-sharing participation in local projects which benefit Carol Stream residents and businesses. This financial participation comes in a number of forms, whether through direct reimbursements from other governments or agencies or through projects sponsored directly by other government units which do not flow through Village budgets or accounts. A total of \$4.9 million of such direct or indirect funding assistance has been secured for in-process projects or planned projects over the next 5 years of the CIP.

Conclusion

The Village employs a longer-term view to capital improvement planning and funding. Staff has identified foreseeable capital needs for the next five, ten and twenty years. The Village's infrastructure needs are dynamic and therefore require a document that is fluid and capable of adapting to changes in priorities and funding. Staff believes that the document presented herein embodies those characteristics.

The Village has maintained its capital assets very well during its first 50 years and needs to position itself to maintain those assets for the next 5-20 years and beyond. Although we have faced significant challenges presented by what has been the worst operating and financial climate in the Village's history, the Village has benefitted greatly from its long-range planning and forecasting activities. In that regard, the current CIP, as presented, continues our commitment to providing responsible and timely reinvestment in the critical assets which make up the backbone of the community.

Capital Financing Strategy

The Village's capital financing involves major decisions and long-term commitments that require planning as careful and as deliberate as the planning that goes into the capital improvement program (CIP).

A capital financing strategy should:

- Limit the cost of providing capital infrastructure and equipment while meeting the Village's needs.
- Ensure financial strength and flexibility in the future.
- Strengthen the Village's standing with the bond rating agencies, bond buyers, regulators and our customers.

The following six policies together create the Village's capital financing strategy.

1. Cash Reserve Policy

The Village will maintain operating cash reserve balances for its operating funds (General Corporate Fund and Water and Sewer Fund) as a means of meeting the Village's cash flow requirements and to provide a liquidity buffer to protect against short-term revenue losses, delays in State funding, or other unplanned significant expenditures. Reserve balances will be established in accordance with parameters set forth in this policy.

Operating reserves will be established based on annual "net budgeted expenditures" of the fund, which shall be defined as total budgeted expenditures minus capital expenditures.

Cash balances subject to the reserve policy shall exclude cash deposits, escrows, or other amounts held by the Village on behalf of third parties.

The Village Board may, from time to time, establish "special operating reserves", which may be maintained in addition to standard operating reserve balances. Generally, these may be established to support special programs or projects as approved by the Village Board (e.g. Emerald Ash Borer Reserve). These special operating reserves may be established as a percentage of net budgeted expenditures or as a fixed dollar amount which is reduced as qualified expenditures are incurred.

A. General Corporate Fund

The General Corporate Fund shall maintain an operating cash reserve balance at a minimum of 25% of annual net budgeted expenditures, but shall be no more than 50% of net budgeted expenditures.

In the event cash reserve balances exceed 50% of net operating expenditures, the excess amount over the 50% maximum may be:

1. Retained in the General Fund upon direction of the Village Board.
2. Transferred to the Capital Projects Fund as the primary funding support for ongoing Village infrastructure improvements.
3. Used for any other purpose as the Village Board may direct and approve.

Transfers or other disposition of balances in excess of the policy maximum need not take place more frequently than once annually and should generally be directed on or near the time of the adoption of the annual budget, or as soon as is practicable thereafter.

B. Water and Sewer Fund

The Water and Sewer Fund shall maintain an operating cash reserve balance at a minimum of 25% of annual net budgeted expenditures. All other fund reserve balances shall be designated as “capital reserve” balances and will be used to support the construction, repair, rehabilitation or replacement of capital assets serving the combined water and sewer utilities.

If fund balances are used to support one-time capital, one-time non-operating expenditures, and operating expenditure the funds must be specifically appropriated by the Village Board and a plan to replenish the reserves to the required level should accompany the request to use the funds.

2. Debt Capacity

The total general obligation debt will be limited to \$1,000 per capita, which will be reviewed annually.

The Water and Sewer Fund total long-term debt outstanding shall not exceed the amount of fund equity. The Village will endeavor to maintain 1.50 coverage for all indebtedness of the Water and Sewer Fund.

3. Maintain or Improve the Village's Bond Ratings

A bond rating is an opinion of the creditworthiness of a debt issuer with regard to specific debt, a type of debt, or a financing program. A rating evaluates an issuer's strength or weakness on factors that bear on the issuer's ability and willingness to make timely principal and interest payments on the debt.

The Village will strive to maintain and or improve its bond rating.

The Village will maintain good communications with bond rating agencies about its financial condition. The Village will follow a policy of full disclosure on every financial report and bond prospectus.

4. Debt Administration Policy

- A. The Village will confine long-term borrowing to capital improvements that cannot be financed from current revenues or reserves.
- B. The Village will target long-term borrowing for construction of long-lived capital assets only, with the remainder financed on a pay-as-you-go basis.
- C. The Village will maintain good communications with bond rating agencies about its financial condition. The Village will follow a policy of full disclosure on every financial report and bond prospectus.
- D. Every project proposed for financing through general obligation debt should be accompanied by a full analysis of the future operating and maintenance costs associated with the project.
- E. When possible and practicable, debt will be retired early.
- F. Debt will be issued under the guidelines that are outlined in the Village's Debt Management Policy.

5. Multiyear Financial Forecasting Policy

Multiyear financial forecasting is a useful tool for capital planning and finance because capital improvement programs extend over many years. A 5-year financial forecast should be prepared for the Capital Projects Fund, the Water and Sewer Fund and the Motor Fuel Tax Fund. The assumptions used in the forecasting process should be conservative. The presentation of the forecast

results should show the difference between revenues and the spending for the year and the effect of that difference on fund balance.

6. Capital Financing Policy

The Village will undertake long-term financial planning and forecasting to evaluate the effects of budget, capital budget and debt issuance decisions.

The Village will develop a three-year projection of revenues and expenditures for all operating funds and a five-year projection of projects and funding sources within the CIP. The CIP will also include projection of projects along with projected costs for years 6 thru 11 and a projection of projects only for years 11 thru 20.

Category Descriptions

Roadways

Roadways include all structures and appurtenances associated with the Village's roadway system including streets, sidewalks, paths, street lights, roadway drainage and storm water systems, pavement markings, signs, curb and gutter, bridges, culverts, traffic control signals and parkway landscaping.

Water & Sewer Utilities

Water and sewer utilities are composed of infrastructure related to the Village's water main and sanitary sewer collection and treatment systems. They include: water mains, fire hydrants, valves, services, wells, pressure adjusting stations, reservoirs, pumping stations, water treatment systems, sanitary sewer mains, laterals, manholes, lift stations, force mains and the Tom Vinson Water Reclamation Plant.

Facilities

Facilities are all the Village's buildings and grounds including: Gregory J. Bielawski Municipal Center, Public Works Center and Garage, Historic Farm House and the Ross Ferraro Town Center.

Storm Water Utilities

Storm water utilities include all structures and infrastructure associated with the Village's storm water management system including: storm sewers, flared end sections, inlets, catch basins, manholes, runoff storage facilities, restrictor/control structures, flood control facilities, dams, ditches and swales, overland flow routes, wetlands, riparians, ponds and creeks.

Assumptions

1. **Construction Cost Index** – For years 1-10, the existing cost estimates for the projects will be adjusted based on the Construction Cost Index, Chicago Cost Index, Materials Price Index as well as individual indexes for materials and labor as determined by the Engineering News Record Magazine (ENR.com) and the Associated General Contractors of America (AGCA). The indexes for roadway and water main projects indicated a 5% average annual increase in construction costs which was the amount predicted last year. Indexes for sanitary sewer projects also indicate a 5% increase is needed. All future cost estimates assumed a 5% per year increase in construction costs. Staff will continue to monitor project costs throughout the fiscal year and reevaluate cost indices in the next budget cycle.

2. **Interest rate assumptions:**

- FY13/14 - 0.20%
- FY14/15 - 0.50 %
- FY15/16 - 0.75 %
- FY16/17 - 1.00 %
- FY17/18 - 1.50 %

Definitions

1. Characteristics of a capital project:

- Essential public purpose
- Long useful life
- Infrequent and expensive
- Related to other government functions
- The Village's general responsibility to provide it

2. What qualifies for the CIP?

- Road maintenance (preservative and restorative sealers, crack filling, patching, resurfacing, overlays) and reconstruction
- The purchase of land and/or buildings
- Additions to or renovations of buildings that exceed \$25,000
- Improvements to land other than buildings that exceed \$25,000
- Infrastructure additions/improvements, i.e., water and sewer lines, storm sewers
- The CIP is not intended to include vehicles and equipment

3. What costs are chargeable to a capital project?

- Construction costs (labor and material)
- Engineering fees (Phase I, II, III)
- Architect fees
- Legal fees associated with the project
- Acquisition of land or other property for the project, including brokerage fees
- Preparation of land for construction and landscaping during or after construction
- Easements related to the project
- Equipment and furnishings that are affixed to the project
- Initial inventory of movable furnishings and equipment
- Interest and other financing charges during construction

Village of Carol Stream
5 Year Capital Improvement Program - Expenditure Summary

<u>CIP Projects By Fund (\$000)</u>	<u>Fund</u>	<u>FY13/14 Proposed</u>	<u>FY14/15 Planned</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>Total</u>
<u>Roadways:</u>							
1. Pavement Preventative Maintenance Program	CPF	\$ 438	\$ 457	\$ 477	\$ 498	\$ 519	\$ 2,389
2. Flexible Pavement Program	CPF	-	2,452	3,124	3,850	4,042	13,468
3. Flexible Pavement Program	MFT	3,325	-	-	-	-	3,325
4. Fair Oaks Road Pavement Rehabilitation*	CPF	217	-	-	-	-	217
5. Indianwood Drive Pavement Reconstruction	CPF	140	64	-	-	-	204
6. Kuhn Road Pavement Rehabilitation*	CPF	52	62	312	-	-	426
7. Lies Road Pavement Rehabilitation*	CPF	-	29	35	289	-	353
8. Illini Drive Bridge Replacement	CPF	92	844	-	-	-	936
9. Kuhn Road Trail*	CPF	93	-	-	-	-	93
10. West Branch DuPage River Trail*	CPF	134	147	439	108	-	828
11. Gary Avenue Improvements	CPF	-	100	-	17	-	117
12. Streetlight Replacement Program	CPF	325	-	-	-	-	325
Subtotal		\$ 4,816	\$ 4,155	\$ 4,387	\$ 4,762	\$ 4,561	\$ 22,681
<u>Water and Sewer Utilities:</u>							
1. WRC Phase II Aeration System Improvement	W/S	\$ 825	\$ -	\$ -	\$ -	\$ -	\$ 825
2. Building Roof Replacement	W/S	50	65	80	-	-	195
3. WRC Phase I Pumping Station Improvement	W/S	-	1,250	-	-	-	1,250
4. WRC Phase II Pumping Station Improvement	W/S	-	-	650	-	-	650
5. WRC Dewatering System Improvement	W/S	-	-	410	1,640	-	2,050
6. WRC Blower Motor Drive Replacement	W/S	-	-	-	-	110	110
7. WRC WAS Pump Replacement	W/S	-	-	-	-	40	40
8. GIS Utility System Update & Implementation	W/S	-	70	-	-	-	70
9. GIS Utility System Update & Implementation	CPF	-	70	-	-	-	70
10. Water System Studies	W/S	-	-	97	-	-	97
11. SW Reservoir & Pumping Station	W/S	-	-	949	3,145	-	4,094
12. SW DPWC Connection & Metering Station	W/S	-	-	249	2,684	-	2,933
13. Schmale Road Water Main Replacement	W/S	167	309	1,650	-	-	2,126
14. Aztec Drive Sanitary Sewer Replacement	W/S	-	-	52	571	-	623
15. Sanitary Sewer I&I Reduction	W/S	-	-	-	-	50	50
16. WRC Streetlight Replacement	W/S	30	-	-	-	-	30
Subtotal		\$ 1,072	\$ 1,764	\$ 4,137	\$ 8,040	\$ 200	\$ 15,213

Village of Carol Stream
5 Year Capital Improvement Program - Expenditure Summary

<u>CIP Projects By Fund (\$000)</u>	<u>Fund</u>	<u>FY13/14 Proposed</u>	<u>FY14/15 Planned</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>Total</u>
<u>Stormwater Utilities:</u>							
1. Klein Creek Flood Plain Phase II Buyout*	CPF	\$ 37	\$ -	\$ -	\$ -	\$ -	\$ 37
2. Southeast Stormwater Study	CPF	84	-	-	-	-	84
3. Tubeway & Westgate Stormwater Study	CPF	-	40	-	-	-	40
Subtotal		\$ 121	\$ 40	\$ -	\$ -	\$ -	\$ 161
<u>Facilities:</u>							
1. Salt Dome Roof Replacement	CPF	\$ 60	\$ -	\$ -	\$ -	\$ -	\$ 60
2. PWC North Garage Roof Replacement	CPF	330	-	-	-	-	330
3. Fullerton Storage Building	CPF	314	-	-	-	-	314
Subtotal		\$ 704	\$ -	\$ -	\$ -	\$ -	\$ 704
Total Expenditures All Funds:		\$ 6,713	\$ 5,959	\$ 8,524	\$ 12,802	\$ 4,761	\$ 38,759

* Partially funded though outside sources.

Fund Recap

Capital Projects Fund	CPF	\$ 2,316	\$ 4,265	\$ 4,387	\$ 4,762	\$ 4,561	\$ 20,291
Motor Fuel Tax Fund	MFT	3,325	-	-	-	-	3,325
Water & Sewer Fund	W/S	1,072	1,694	4,137	8,040	200	15,143
		\$ 6,713	\$ 5,959	\$ 8,524	\$ 12,802	\$ 4,761	\$ 38,759

Village of Carol Stream
5 Year Capital Improvement Project/Funding Summary

<u>CIP Funding By Source (\$000)</u>	<u>Fund</u>	<u>FY13/14 Proposed</u>	<u>FY14/15 Planned</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>Total</u>
<u>Roadways:</u>							
1. Pavement Preventative Maint. Program	CPF						
- Reserves		\$ 438	\$ 457	\$ 477	\$ 498	\$ 519	\$ 2,389
2. Flexible Pavement Program	CPF						
- Reserves		-	2,452	3,124	3,850	4,042	13,468
3. Flexible Pavement Program	MFT						
- Reserves		3,325	-	-	-	-	3,325
4. Fair Oaks Road Pavement Rehab.	CPF						
- WTRD		102	-	-	-	-	102
- Reserves		115	-	-	-	-	115
5. Indianwood Drive Pavement Reconstr.	CPF						
- Reserves		140	64	-	-	-	204
6. Kuhn Rd. Pavement Rehabilitation	CPF						
- Reserves		52	62	312	-	-	426
7. Lies Rd. Pavement Rehabilitation	CPF						
- Reserves		-	29	35	289	-	353
8. Illini Dr. Bridge Deck Replacement	CPF						
- Reserves		92	844	-	-	-	936
9. Kuhn Road Trail	CPF						
- DCEO		83	-	-	-	-	83
- Reserves		10	-	-	-	-	10
10. West Branch DuPage River Trail	CPF						
- WTRD		20	24	87	23	-	154
- FPDDPC		-	-	184	62	-	246
- ITEP		92	101	81	-	-	274
- Reserves		22	22	87	23	-	154
11. Gary Avenue Improvements	CPF						
- Reserves		-	100	-	17	-	117
12. Streetlight Replacement Program	CPF						
- Reserves		325	-	-	-	-	325
Total Roadways		\$ 4,816	\$ 4,155	\$ 4,387	\$ 4,762	\$ 4,561	\$ 22,681

Village of Carol Stream
5 Year Capital Improvement Project/Funding Summary

<u>CIP Funding By Source (\$000)</u>	<u>Fund</u>	<u>FY13/14 Proposed</u>	<u>FY14/15 Planned</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>Total</u>
<u>Water and Sewer Utilities:</u>							
1. WRC Phase II Aeration System Imp.	W/S						
- Reserves		\$ 825	\$ -	\$ -	\$ -	\$ -	\$ 825
2. Building Roof Replacement	W/S						
- Reserves		50	65	80	-	-	195
3. WRC Phase I Pumping Station Imp.	W/S						
- Reserves		-	1,250	-	-	-	1,250
4. WRC Phase II Pumping Station Imp.	W/S						
- Reserves		-	-	650	-	-	650
5. WRC Dewatering System Imp.	W/S						
- Reserves		-	-	410	1,640	-	2,050
6. WRC Blower Motor Drive Repl.	W/S						
- Reserves		-	-	-	-	110	110
7. WRC WAS Pump Replacement	W/S						
- Reserves		-	-	-	-	40	40
8. GIS Utility System Update & Implement.	W/S						
- Reserves		-	70	-	-	-	70
9. GIS Utility System Update & Implement.	CPF						
- Reserves		-	70	-	-	-	70
10. Water System Studies	W/S						
- Reserves		-	-	97	-	-	97
11. SW Reservoir & Pumping Station	W/S						
- Debt		-	-	949	3,145	-	4,094
12. SW DPWC Connect./Metering Station	W/S						
- Debt		-	-	249	2,684	-	2,933
13. Schmale Rd. Water Main Replacement	W/S						
- Reserves		167	309	1,650	-	-	2,126
14. Aztec Drive Sanitary Sewer Replacement	W/S						
- Reserves		-	-	52	571	-	623
15. Sanitary Sewer I&I Reduction	W/S						
- Reserves		-	-	-	-	50	50

Village of Carol Stream
5 Year Capital Improvement Project/Funding Summary

<u>CIP Funding By Source (\$000)</u>	<u>Fund</u>	<u>FY13/14 Proposed</u>	<u>FY14/15 Planned</u>	<u>FY15/16 Planned</u>	<u>FY16/17 Planned</u>	<u>FY17/18 Planned</u>	<u>Total</u>
16. WRC Streetlight Replacement	W/S						
- Reserves		30	-	-	-	-	30
Total Water and Sewer Utilities		\$ 1,072	\$ 1,764	\$ 4,137	\$ 8,040	\$ 200	\$ 15,213
<u>Stormwater Utilities:</u>							
1. Klein Cr. Flood Pl. Str. Phase II Buyout	CPF						
- DCEO CDBG Phase II		\$ 37	\$ -	\$ -	\$ -	\$ -	\$ 37
- Reserves		-	-	-	-	-	-
2. Southeast Stormwater Study	CPF						
- Reserves		84	-	-	-	-	84
3. Tubeway & Westgate Stormwater Study	CPF						
- Reserves		-	40	-	-	-	40
Total Stormwater Utilities		\$ 121	\$ 40	\$ -	\$ -	\$ -	\$ 161
<u>Facilities:</u>							
1. Salt Dome Roof Replacement	CPF						
- Reserves		\$ 60	\$ -	\$ -	\$ -	\$ -	\$ 60
2. PWC North Garage Roof Replacement	CPF						
- Reserves		330	-	-	-	-	330
3. Fullerton Storage Building	CPF						
- Reserves		314	-	-	-	-	314
Total Facilities		\$ 704.00	\$ -	\$ -	\$ -	\$ -	\$ 704.00
TOTAL FUNDING		\$ 6,713	\$ 5,959	\$ 8,524	\$ 12,802	\$ 4,761	\$ 38,759
<u>Funding Breakdown:</u>							
Debt		\$ -	\$ -	\$ 1,198	\$ 5,829	\$ -	\$ 7,027
Grants/Cost Share		334	125	352	85	-	896
Reserves		6,379	5,834	6,974	6,888	4,761	30,836
Total		\$ 6,713	\$ 5,959	\$ 8,524	\$ 12,802	\$ 4,761	\$ 38,759

Village of Carol Stream
5 Year Capital Improvement Program - Fund Cash Flow Projections

	FY11/12 Audited Fund Balances	FY12/13 Estimated	FY13/14 Projected	FY14/15 Projected	FY15/16 Projected	FY16/17 Projected	FY17/18 Projected
<u>CAPITAL PROJECTS FUND</u>							
Proj. Beginning Fund Balance, May 1	\$ 19,041,250	\$22,574,313	\$21,041,313	\$19,144,313	\$15,054,187	\$12,008,776	\$ 7,271,776
Estimated Revenues	937,203	780,000	404,000	205,000	452,000	160,000	25,000
Estimated Expenditures*	(2,404,140)	(4,413,000)	(2,431,000)	(4,383,000)	(4,509,000)	(4,897,000)	(4,700,000)
Projected Surplus / Deficit	(1,466,937)	(3,633,000)	(2,027,000)	(4,178,000)	(4,057,000)	(4,737,000)	(4,675,000)
Transfer In From General Fund	5,000,000	2,100,000	130,000	87,874	1,011,589	-	-
Proj. Ending Fund Balance, April 30	\$ 22,574,313	\$21,041,313	\$19,144,313	\$15,054,187	\$12,008,776	\$ 7,271,776	\$ 2,596,776
<u>MOTOR FUEL TAX FUND</u>							
Proj. Beginning Fund Balance, May 1		\$ 2,615,279	\$ 3,416,479	\$ 908,479	\$ 1,699,479	\$ 2,470,479	\$ 3,240,479
Estimated Revenues		1,156,000	940,000	920,000	906,000	912,000	928,000
Estimated Expenditures*		(354,800)	(3,448,000)	(129,000)	(135,000)	(142,000)	(149,000)
Projected Surplus / Deficit		801,200	(2,508,000)	791,000	771,000	770,000	779,000
Proj. Ending Fund Balance, April 30		\$ 2,615,279	\$ 3,416,479	\$ 908,479	\$ 1,699,479	\$ 2,470,479	\$ 4,019,479
<u>WATER AND SEWER FUND</u>							
Proj. Beginning Cash Balance, May 1		\$16,869,569	\$15,081,611	\$13,597,336	\$11,247,492	\$ 7,599,033	\$ 4,663,033
Estimated Revenues		8,766,751	9,010,000	9,550,000	9,980,000	10,500,000	11,000,000
Proceeds of Debt		-	-	-	1,198,000	5,829,000	-
Estimated Operating Expenses/Debt		(9,096,059)	(9,422,275)	(10,205,844)	(10,689,459)	(11,225,000)	(11,775,000)
Estimated Expenses (Construction)		(1,458,650)	(1,072,000)	(1,694,000)	(4,137,000)	(8,040,000)	(200,000)
Projected Surplus / Deficit		(1,787,958)	(1,484,275)	(2,349,844)	(3,648,459)	(2,936,000)	(975,000)
Proj. Ending Cash Balance, April 30**		\$ 16,869,569	\$15,081,611	\$13,597,336	\$ 11,247,492	\$ 4,663,033	\$ 3,688,033

* Includes non-capital / operating expenditures.

** A portion of the total cash balance is reserved for operations (25% of annual operating budget).

Project Title: *Pavement Preventative Maintenance Program*

Responsible Department: *Engineering Services & Public Works*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$2,389,000	\$0	\$438,000	\$457,000	\$477,000	\$498,000	\$519,000	\$0

Description & Scope: This Program employs a variety of pavement maintenance methods outside of the scope for the typical full-width milling, resurfacing and reconstruction projects (Flexible Pavement Program). Preventative and restorative sealers with rejuvenating agents will be applied to streets, parking lots and bike paths about every four to five years. A total of \$378,000 has been budgeted for the Pavement Rejuvenation Projects. The Pavement Preventative Maintenance Program also includes the \$60,000 Pavement Patching Project. Based upon annual assessments of streets not scheduled for full-width restoration, this element will provide for partial and full-depth asphalt patching, edge-grinding and resurfacing.

Purpose & Need: The Flexible Pavement Program addresses large-scale, structural needs through full-width milling and resurfacing. The Pavement Preventative Maintenance Program is designed to extend the life of street surfaces by preserving the pavement integrity through application of preservative and restorative sealers and by delivering structural repairs in small areas where needed. Repainting striping and symbols will provide safer traffic control and warnings for both motorists and pedestrians.

Impact on Future Operating Budget: By arresting small areas of pavement failure and applying rejuvenation materials to extend life, the program will reduce the degree of decline or failure that the annual Flexible Pavement Program must address.



Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	Annually	In House
Construction	5/13 - 4/14	\$438,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$438,000

Project Title: *Flexible Pavement Program*

Responsible Department: *Engineering Services*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$16,793,000	\$0	\$3,325,000	\$2,452,000	\$3,124,000	\$3,850,000	\$4,042,000	\$0

Description & Scope: This is an annual project that involves either a 2” maintenance overlay (resurfacing), a 2.75” structural overlay or total removal and replacement (pavement reconstruction) of the asphalt pavement section (binder and surface). Curb and gutter, sidewalk and driveway removal and replacement as well as pipe under drainage, street and structure patching are included with these projects if the conditions meet Village criteria. Due to a dwindling CIP balance and no reliable funding source resurfacing, structural overlay and pavement reconstruction projects were reduced 54% during the past two years. This has greatly increased the backlog of streets in fair to poor or failed condition from 22 in 2008 to 95 in 2011. Therefore, it was decided to restore these projects back to their original levels.

Purpose & Need: The Village uses the Roadway Management System (RMS) Study to develop its annual roadway management program. Streets are inventoried and a pavement condition index (PCI) is calculated for each street section. This PCI along with other factors assist engineers in evaluating maintenance/repair strategies and prioritizing street projects. As pavements continue to age they come to a point of deterioration where crackfill and rejuvenation maintenance strategies no longer become effective. At that time they are considered for resurfacing or a structural overlay. When the pavement has deteriorated beyond the point where a resurfacing operation is effective, pavement reconstruction is then considered. This type of operation is typical for severely deteriorated streets.

Impact on Future Operating Budget: These operations will improve the structural integrity of the pavement, its rideability and drainage of the pavement surface as well as extend its useful pavement life. It will also reduce future maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



Schedule of Activities

Activity	From - To	Amount
Design	Annually	In House
Construction	5/13 - 4/14	\$3,325,000

Means of Financing

Funding Source	Amount
Motor Fuel Tax Fund (FY14)	\$3,325,000
Capital Projects Fund (FY15-18)	

Flexible Pavement Program Project

Street Resurfacing

Aleut Trail – Cul-de-sac to Cul-de-sac
Arrowhead Trail – Thunderbird Tr. to Thunderbird Tr.
Aztec Drive – Mohican Rd. to Ute Ln.
Bradbury Circle – Merbach Dr. to Merbach Dr.
Bristol Drive – Thunderbird Tr. to Windemere Ln.
Brookstone Drive – Morton Rd. to Lies Rd.
Castleton Court – Cul-de-sac to Tacoma Dr.
Chippewa Trail – Aztec Dr. to ‘ East
Cliff View Lane – Brookstone Dr. to High Ridge Pass
Cochise Court – Arrowhead Tr. to Silverleaf Blvd.
Danbury Drive – Windemere Ln. to Thunderbird Tr.
Essex Drive – Thunderbird Tr. to Windemere Ln.
High Ridge Pass – Lies Rd. to Birchbark Tr.
Hillcrest Drive – Brookstone Dr. to Overlook Ln.
Lacrosse Street – Canyon Tr. north to Cul-de-sac
Moccasin Court – Canyon Tr. to Cul-de-sac
Mountain Glen Way – High Ridge Pass to Hillcrest Dr.
Napa Street – Flint Tr. to Niagara St.
Navajo Street – Cul-de-sac to Cul-de-sac
Niagara Street – Flint Tr. to Napa St.
Old Meadow Court - Hillcrest Dr. to Cul-de-sac
Overlook Lane – Waco Dr. to Hillcrest Dr.
Palomino Street – Canyon Tr. to Cul-de-sac
Penfield Drive – Birchbark Tr. to Williamstown Dr.
Pocahontas Trail – Chippewa Tr. to Mohican Rd.
Quincy Court – Birchbark Tr. to Cul-de-sac
Rocky Valley Way – Brookstone Dr. to Westward Tr.
Saratoga Drive – Waco Dr. to Westward Tr.
Shelburne Drive – Thunderbird Tr. to Cul-de-sac
Silverleaf Boulevard – Illini Dr. to Thunderbird Tr.
Sioux Lane – Cochise Ct. to Thunderbird Tr.
Stockbridge Drive – Birchbark Tr. to Williamstown Dr.
Tacoma Drive – Munson Dr. to Birchbark Tr.
Tahoe Court – Munson Dr. to Cul-de-sac
Tama Court – Aztec Dr. to Cul-de-sac
Thunderbird Tr. – Bridge to Arrowhead Tr.
Ute Lane – Aztec Dr. to Chippewa Tr.
Waco Drive – Birchbark Tr. to Brookstone Dr.
Westward Trail – Waco Tr. to Birchbark Tr.
Williamstown Drive – Birchbark Tr. to Longmeadow Dr.
Windemere Lane – Bristol Dr. to Danbury Dr.

Structural Overlay

Alexandra Way – North Ave. to North Ave.
Commerce Drive – St. Paul Blvd. to Kehoe Blvd.
Gerzevske Lane – Kehoe Blvd. to Randy Rd.
Main Place – St. Charles Rd. to Great Western Trail
Pawnee Drive – County Farm Rd. to Morton Rd.
Randy Road – Schmale Rd. to Gerzevske Ln.

Pavement Reconstruction

Lacrosse Street – Canyon Tr. south to Cul-de-sac
Palomino Street – Canyon Tr. to Aleut Tr.
Ohio Court – Canyon Tr. to Cul-de-sac
Saginaw Court – Canyon Tr. to Cul-de-sac
Wapum Court – Canyon Tr. to Cul-de-sac

Project Title: Fair Oaks Road Pavement Rehabilitation

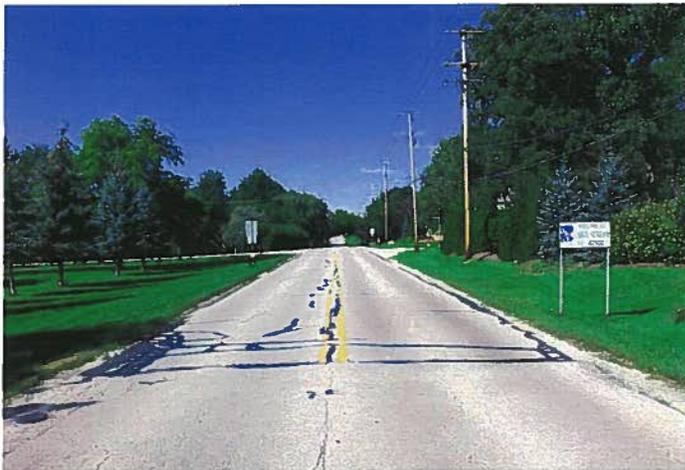
Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$846,000	\$629,000	\$217,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: This project encompasses almost all of Fair Oaks Road from Plum Grove Court to North Avenue. The Village previously totally reconstructed the roadway from Army Trail Road to Plum Grove Court. Total project length is 8,860 feet. Originally the project called for the total reconstruction of 1.18 miles of roadway, the addition of storm sewers, drainage ditches and streetlights as well as grading for a future bike trail. However, due to projected future CIP budget shortfalls the scope of the projected has been modified to save money. The new design will only involve the reconstruction of the pavement section. A new full depth roadway will be constructed with roadside ditches to keep in concert with the existing rural feel. The project will not include curb and gutter, sidewalks, storm sewers, streetlights or the regarding of ditches.

Purpose & Need: The pavement had a PCI of 66, indicating the need for rehabilitation. It was a chip and seal road with a bituminous overlay. It is beyond its useful life and the pavement needs to be reconstructed. Fair Oaks Road has an average daily traffic (ADT) of 5,337 vehicles per day (VPD) and is a Federal Aid Urban System (FAUS) route with sections in both the Village and the Wayne Township Road District (WTRD). The Village has obtained \$611,800 in Local Agency Pavement Preservation (LAPP) funding via the Surface Transportation Program (STP) administered through the Federal Highway Administration (FHWA).

Impact on Future Operating Budget: Reconstruction of the asphalt roadway will economically provide a new pavement structure and will lessen maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



Schedule of Activities

Activity	From - To	Amount
Design	5/11 - 4/12	\$ 41,000
Construction	5/12 - 4/14	\$805,000

Means of Financing

Funding Source	Amount
Wayne Township Road District	\$143,000
LAPP	\$541,000
Capital Projects Fund	\$162,000

Fair Oaks Road Pavement Rehabilitation Project



Project Title: Indianwood Drive Pavement Reconstruction

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$204,000	\$0	\$140,000	\$64,000	\$0	\$0	\$0	\$0

Description & Scope: The entire pavement section consisting of a 6” Bituminous Asphalt Material (BAM) course, 2” binder course and 1½” surface course on 1,700 feet of Indianwood Drive for half the pavement width will be totally replaced as a patch in FY14. In FY15 after DuPage County has finished their \$5.12M Armstrong Park Flood Control Reservoir and Siphon Projects the Village will resurface all the streets in this area including Indianwood Drive. Approximately 290 feet of curb and gutter will also be replaced.

Purpose & Need: DuPage County will be constructing a 60” diameter siphon relief sewer along the centerline of Indianwood Drive to drain the new 115 acre-foot flood control facility being built in Armstrong Park. This will require the total removal and replacement of the asphalt pavement for approximately half the street width as well as an overlay in the following year. The overlay will be incorporated into the FY15 Flexible Pavement Program. Per the intergovernmental agreement with DuPage County and the Carol Stream Park District the Village is responsible for the restoration of the asphalt pavement.

Impact on Future Operating Budget: Replacing the entire pavement section with a perpetual pavement design will significantly reduce future maintenance repair costs and greatly extend the pavement life. Normal maintenance operations, preservative sealing and crack filling, will be performed.



Schedule of Activities

Activity	From - To	Amount
Design – In House/DuPage County	5/12 - 10/14	\$ 0
Construction	11/13 - 4/15	\$204,000

Means of Financing

Funding Source	Amount
Capital Projects Fund	\$204,000

Indianwood Drive Pavement Reconstruction Project



Project Title: Kuhn Road Pavement Rehabilitation

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$426,000	\$0	\$52,000	\$62,000	\$312,000	\$0	\$0	\$0

Description & Scope: The upper 2 ½” asphalt surface course on 8,900 feet of Kuhn Road will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways, storm sewer structures as well as curb and gutter sections will be repaired in accordance with Village criteria. The project limits are from Lies Road to North Avenue.

Purpose & Need: The ADT for Kuhn Road is over 8,600 VPD. This major collector serves a large residential section of Carol Stream. Although currently the two pavement sections have a PCI of 72 and 72, the roadway surface is deteriorating to the point where another structural overlay will be necessary in 5 years. Typically overlays are performed every fifteen years. The pavement has received one structural overlay in 1998. The existing overlay will be fourteen years old when it is replaced in 2012. Replacing the surface course will extend the pavement life, improve rideability and reduce maintenance costs. The Village has obtained \$728,000 in LAPP funding.

Impact on Future Operating Budget: Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



Schedule of Activities

Activity	From - To	Amount
Design	5/13 - 4/14	\$ 52,000
Construction	5/14 - 4/16	\$374,000

Means of Financing

Funding Source	Amount
LAPP	\$728,000
Capital Projects Fund	\$426,000

Kuhn Road Pavement Rehabilitation Project



Project Title: Lies Road Pavement Rehabilitation

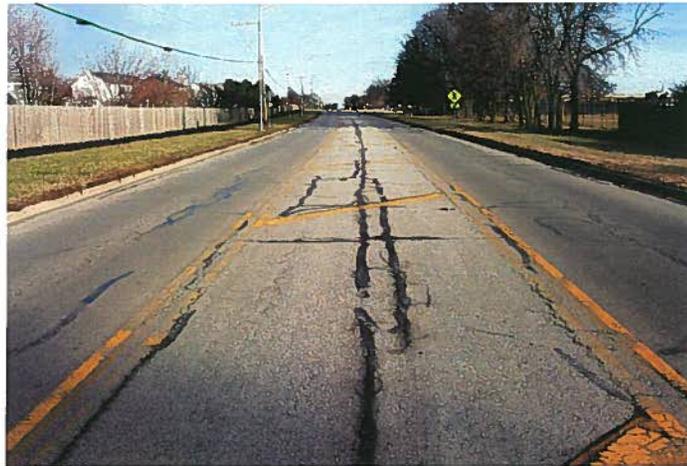
Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$642,000	\$0	\$0	\$29,000	\$35,000	\$578,000	\$0	\$0

Description & Scope: This project involves the 2,850 foot section of Lies Road from Kuhn Road to County Farm Road. As with the Kuhn Road Pavement Rehabilitation Project, the upper 2 ½” asphalt surface course will be removed and replaced with asphalt leveling binder and surface courses. Full depth patching will be performed at severely deteriorated locations. The entire pavement surface will receive area reflective crack control treatment prior to placement of the surface course. Deteriorated driveways, storm sewer structures as well as curb and gutter sections will be repaired in accordance with Village criteria.

Purpose & Need: The current ADT for Kuhn Road is 9,900 VPD with a projected ADT of 11,000 VPD in 2040. This major collector also serves a large residential section of Carol Stream. The PCI is only 12 indicative of a failed condition. However, this rating was based on no crackfill or rejuvenation measures performed on the surface which would’ve increased its rating. Replacing the surface course will extend the pavement life, improve rideability and reduce maintenance costs. Next year the Village will be applying for \$289,000 in LAPP funding. If funding isn’t obtained, the project will be incorporated into the Flexible Pavement Program.

Impact on Future Operating Budget: Replacing the wearing surface course will extend the pavement life and reduce maintenance repair costs. Normal maintenance operations, preservative sealing and crack filling, will be performed.



Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/14 - 4/15	\$ 29,000
Construction	5/15 - 4/17	\$613,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
LAPP	\$289,000
Capital Projects Fund	\$353,000

Lies Road Pavement Rehabilitation Project



Project Title: Illini Drive Bridge Replacement

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$936,000	\$0	\$92,000	\$844,000	\$0	\$0	\$0	\$0

Description & Scope: The project consists of removing the existing roadway, Spancrete bridge deck panels and abutments and installing a new cast-in-place or precast concrete structure. The roadway including the street, sidewalk and railings will also be replaced. The roadway will be totally closed at the structure to shorten the construction schedule. A traffic detour will be provided throughout the project.

Purpose & Need: The original bridge was constructed in 1973. A September 2009 bridge inspection revealed several deck panels have showed signs of seepage and delamination with cracking in the abutments. This type of deterioration is similar to what the Thunderbird Trail bridge experienced before a panel failed forcing a partial road closure. The 2011 bridge inspection has since identified the failure of one deck beam and a failed repair on another deck beam. Erosion is occurring behind each wing wall with seepage between the deck beams and abutments at isolated locations. This year the Illinois Bureau of Bridge and Structures performed a weight limit evaluation which required the Village to impose an 18 ton weight limit restriction on the bridge. Special Feature Inspections must also be performed every six months.

Impact on Future Operating Budget: Replacement of the bridge will reduce future bridge maintenance and repair work. It will also help protect undermining and failure of the roadway. Normal maintenance will be performed as needed and the bridge will be inspected biennially by a certified bridge inspector as required by IDOT.



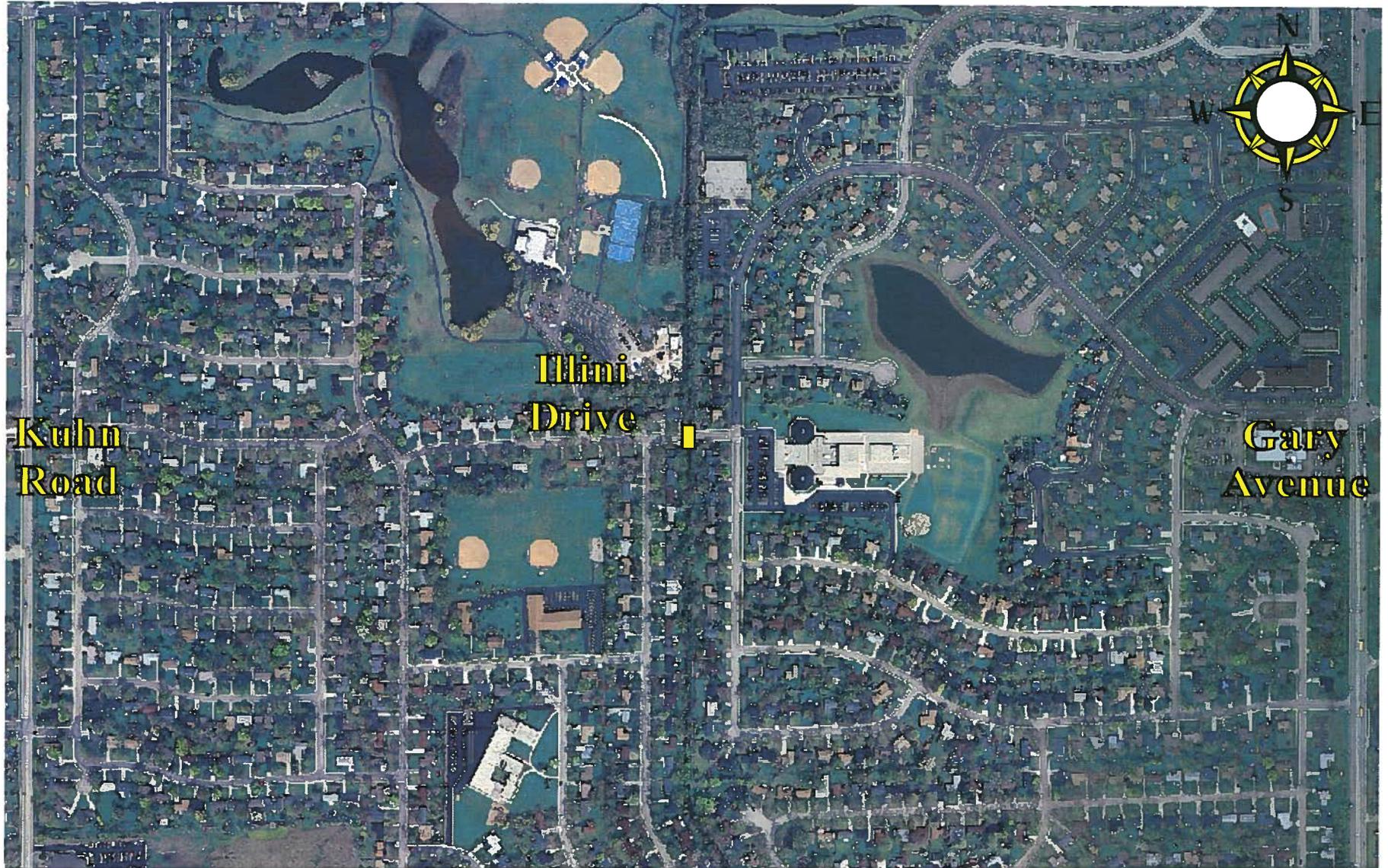
Schedule of Activities

Activity	From - To	Amount
Design	5/13 - 4/14	\$ 92,000
Construction	5/14 - 4/15	\$844,000

Means of Financing

Funding Source	Amount
Capital Projects Fund	\$936,000

Illini Drive Bridge Deck Replacement Project



Project Title: Kuhn Road Trail

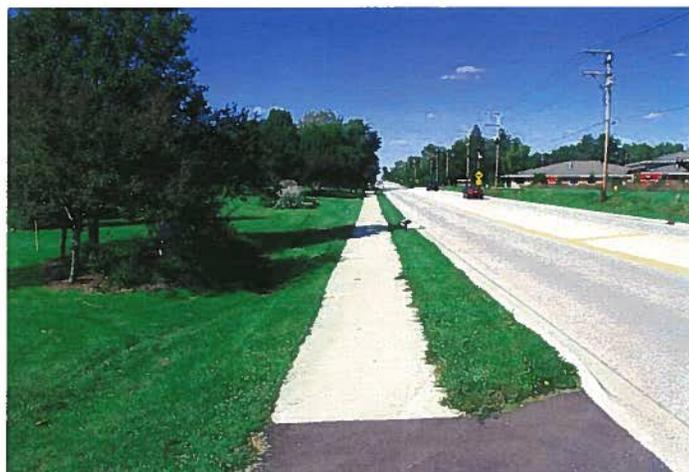
Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$789,000	\$696,000	\$93,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: A 10-foot wide, 2.3 mile long bituminous shared-use path has been constructed on the west side of Kuhn Road from Lies Road to Barbara O’Rahilly Volunteer Park where it connects into the Park District’s trail that extends south Through Redhawk Park to a connection with the Great Western Trail. The Village has accepted the improvements and is waiting final invoicing from IDOT.

Purpose & Need: The purpose and need for this project is to construct a multi-use facility that will connect local and regional trail systems. This path will enable residents easy access to the Illinois Prairie Path via the Great Western Trail. It will also link to the Lies Road Path that accesses the West Branch Forest Preserve, Simkus Center, 13 parks, 6 schools, 2 churches, a proposed commercial area as well as the Village’s Town Center. The Village has received \$626,000 from the FHWA Surface Transportation Program (STP) Transportation Control Measure (TCM) Program and \$373,000 from the FHWA Congestion Mitigation Air Quality (CMAQ) Program and \$100,000 from a Department of Commerce and Economic Opportunity (DCE)) Legislative Grant.

Impact on Future Operating Budget: This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design Study & Final Engineering	5/08 - 4/12	\$258,000
ROW Acquisition	5/09 - 4/12	\$ 14,000
Construction	5/12 - 4/13	\$517,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
FHWA STP-TCM Grant - Construction	\$330,000
FHWA CMAQ Grant – Design & Construction	\$278,000
DCEO Legislative Grant	\$100,000
Carol Stream Park District	\$ 9,000
Capital Projects Fund	\$ 72,000

Kuhn Road Trail Project



Project Title: West Branch DuPage River Trail

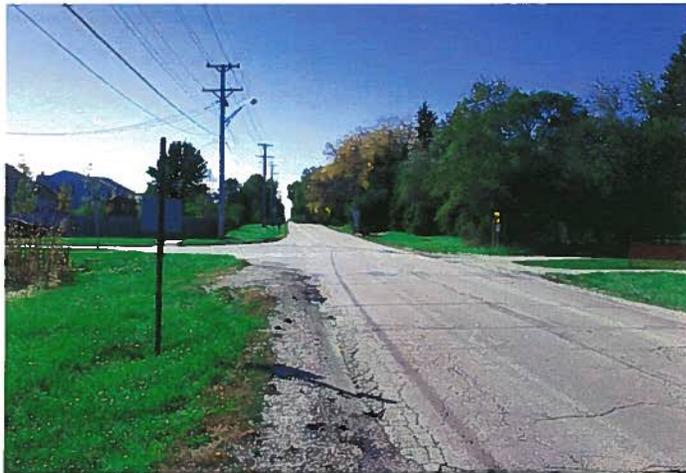
Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$2,329,000	\$205,000	\$134,000	\$147,000	\$1,411,000	\$432,000	\$0	\$0

Description & Scope: The proposed project includes a 10' wide bituminous path 13,000 feet along the east side of Fair Oaks Road from Oxford Drive to St. Charles Road, west to the West Branch of the DuPage River. It also includes a spur along the north side of St. Charles Road from Fair Oaks Road to Benjamin Middle School. This project now includes the Fair Oaks Road Bike Path Project as well since the Village has received STP-TCM Program and Illinois Transportation Enhancement Program (ITEP) grants that included both sections. It is a jointly funded project involving the Village, WTRD and the Forest Preserve District of DuPage County (FPDDC).

Purpose & Need: Pedestrians, bicyclists and joggers have used the roadway as a path. The FPDDC has constructed a trail head with a parking facility just north of Lies Road on the west side of Fair Oaks Road. They have requested use of Village right-of-way to extend their West Branch Regional Trail System south to St. Charles Road and then west to the River where it will eventually connect with the Great Western Trail and the Illinois Prairie Path. Once constructed, this path will provide access to these trails/paths and other regional systems.

Impact on Future Operating Budget: This new asphalt path will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



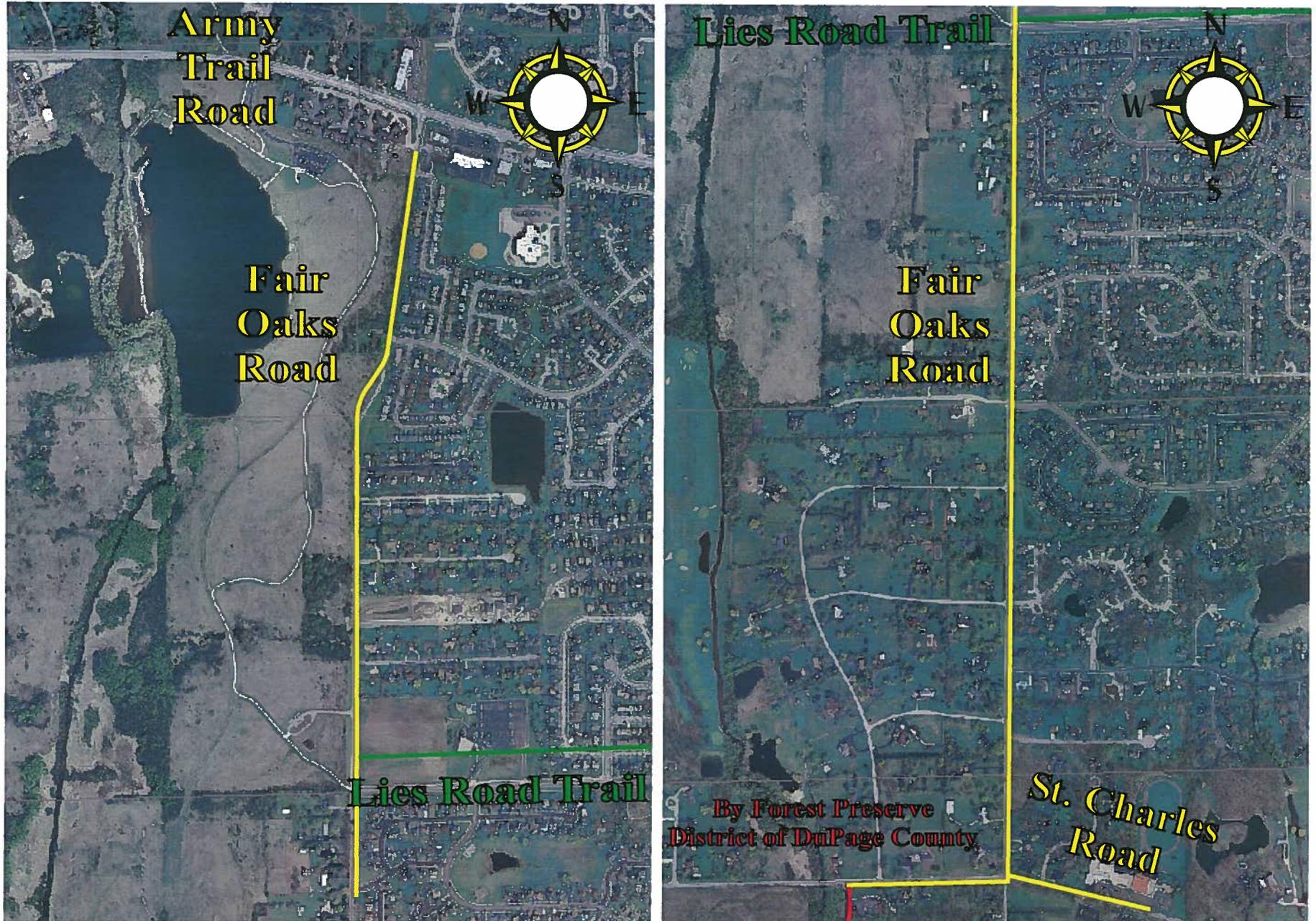
Schedule of Activities

Activity	From - To	Amount
Design Study & Final Engineering	5/10 - 4/14	\$ 373,000
Right of Way Acquisition	5/12 - 4/14	\$ 100,000
Construction	5/14 - 4/15	\$1,856,000

Means of Financing

Funding Source	Amount
Forest Preserve District	\$ 246,000
Wayne Township Road District	\$ 174,000
FHWA STP-TCM Grant – Construction	\$1,296,000
IDOT ITEP Grant – Design Study & Final Engineering	\$ 438,000
Capital Projects Fund	\$ 175,000

West Branch DuPage River Trail Project



Project Title: Gary Avenue Improvements

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$117,000	\$0	\$0	\$100,000	\$0	\$17,000	\$0	\$0

Description & Scope: This project is the Village’s contribution towards two DuPage County projects: Gary Avenue Improvement and Gary Avenue Multi-Use Path Projects. The \$6.425M Improvement Project consists of resurfacing and widening Gary Avenue to a five lane section along with the addition of right turn lanes, curbs and gutters, storm sewers, traffic signal modernization and improvements to accommodate the future multi-use path. The Village is contributing \$100,000 towards this project. The \$3.05M Multi-Use Path Project entails the construction of a 10’ wide asphalt multi-use path along the west side of Gary Avenue from the Great Western Trail to Army Trail Road continuing west to Brighton Drive. It also includes the continuation of the existing ten-foot wide asphalt bike path along the north side of Lies Road to the Gary Avenue intersection. The Fountains at Town Center development contributed approximately \$17,000 for these costs. DuPage County received a \$1,875,000 STP-TCM Program grant and has responsibility for the remaining \$1,158,000 as the lead agency.

Purpose & Need: Numerous pedestrians and bicyclists have been observed traveling along Gary Avenue with an existing ADT of 19,700 to 27,700 VPD. There are also numerous destinations that exist along the Gary Avenue corridor such as the Village Hall, Town Center, proposed Park District Recreation Center, offices, businesses and residential neighborhoods. Future extensions are planned to bring the path north to Stratford Square Mall and eventually connecting into paths to the North DuPage Regional Trail.

Impact on Future Operating Budget: This new asphalt path will be the Village’s responsibility to maintain, but will require minimal maintenance initially. As the path ages and deteriorates more maintenance and rehabilitation will become necessary.



Schedule of Activities

Activity	From - To	Amount
Gary Avenue Construction	5/14 - 4/15	\$100,000
Multi-Use Path Construction	5/16 - 4/17	\$ 17,000

Means of Financing

Funding Source	Amount
Developer Contributions	\$ 17,000
Capital Projects Fund	\$100,000

Gary Avenue Improvements Project



Project Title: *Streetlight Replacement Program*

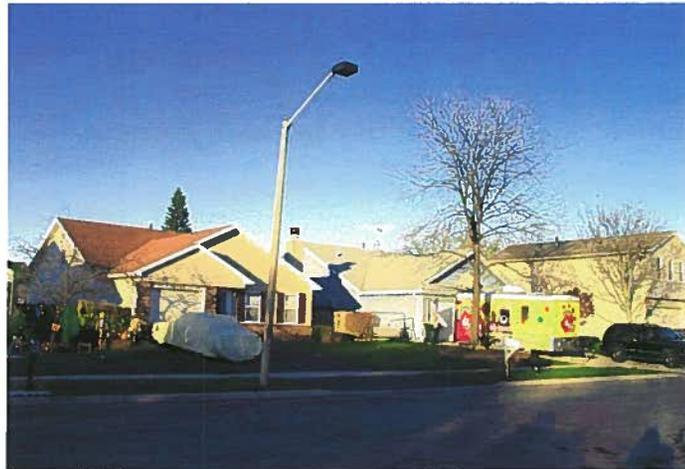
Responsible Department: *Public Works*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$325,000	\$0	\$325,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: The project involves the replacement of approximately 50 to 60 deteriorated concrete streetlight poles with standard aluminum poles with screw-in bases and LED light fixtures, along with the complete replacement of conduit, cabling and controllers.

Purpose & Need: The Village has over 1,000 concrete poles in inventory, many of which are exhibiting signs of deterioration. In addition, other elements are in need of repair such as deteriorated wiring, inadequate controls, photoelectric components and pole anchors. The LED light fixtures will also provide better, cleaner lighting.

Impact on Future Operating Budget: Replacing the deteriorated concrete poles will reduce potential liability due to structural failure. In addition, the LED fixtures will last considerably longer than existing fixtures, reducing maintenance and replacement intervals, as well as reducing electrical consumption. Finally, the new products selected for cabling, conduit and controllers will require less maintenance, reduce underground failures, and allow for isolation of outages so that total street blackouts are less likely.



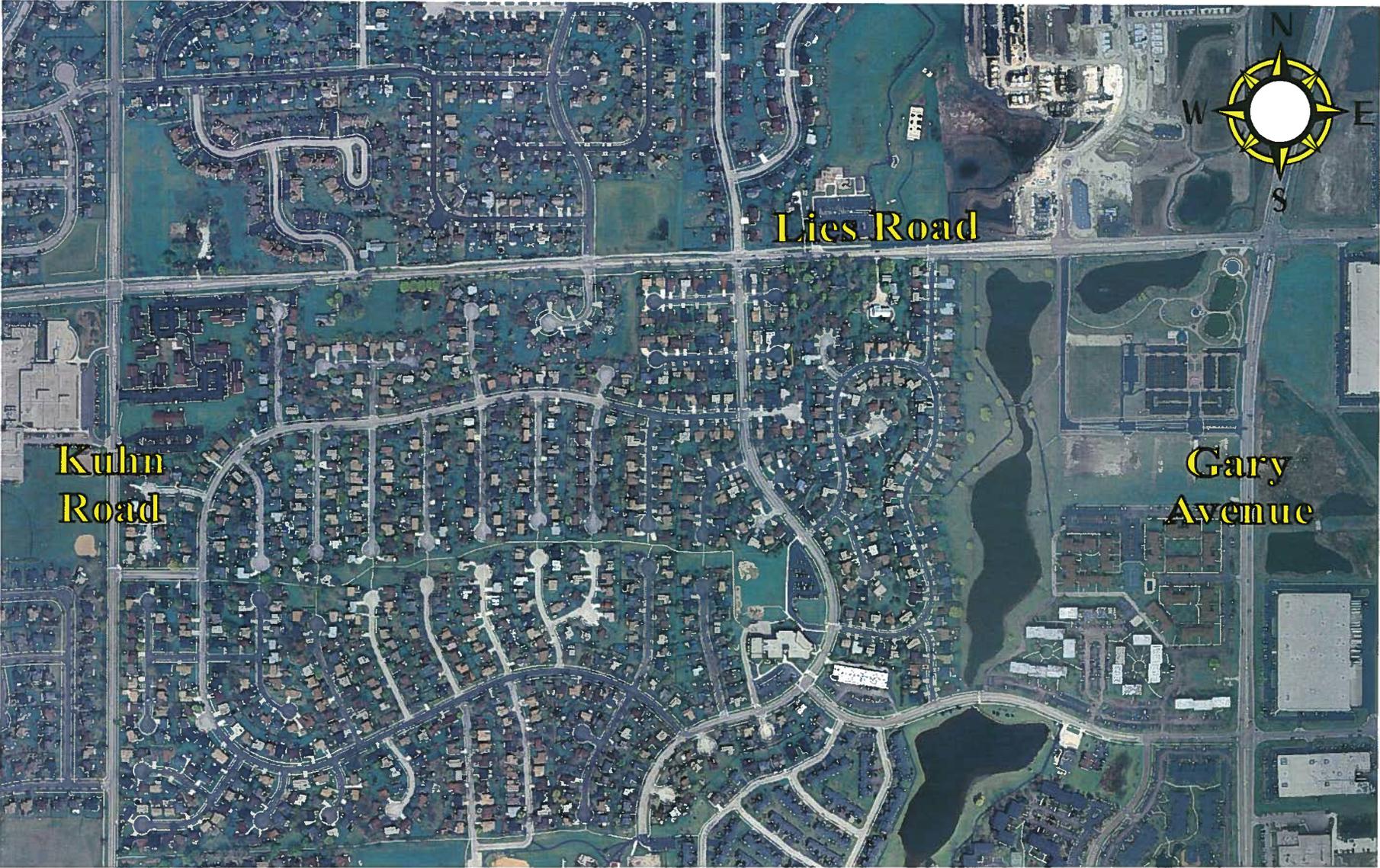
Schedule of Activities

Activity	From - To	Amount
Construction	5/13 - 4/14	\$325,000

Means of Financing

Funding Source	Amount
Capital Projects Fund	\$325,000

Streetlight Replacement Program Project – Western Trails



Project Title: WRC Phase II Aeration System Improvement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$825,000	\$0	\$825,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: Installation of advanced instrumentation that will improve control of the aeration system through process probes and blower speed controls.

Purpose & Need: The purpose of the project is to improve the efficiency of generating the needed air for digester aeration, improve control of air delivery to the digesters and to establish control of air delivery to the upstream aeration tank in the operating train. This project has been rated as the number two priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

Impact on Future Operating Budget: Improved ability to control air delivery will allow for more efficient use of blowers, which will help reduce electrical costs.



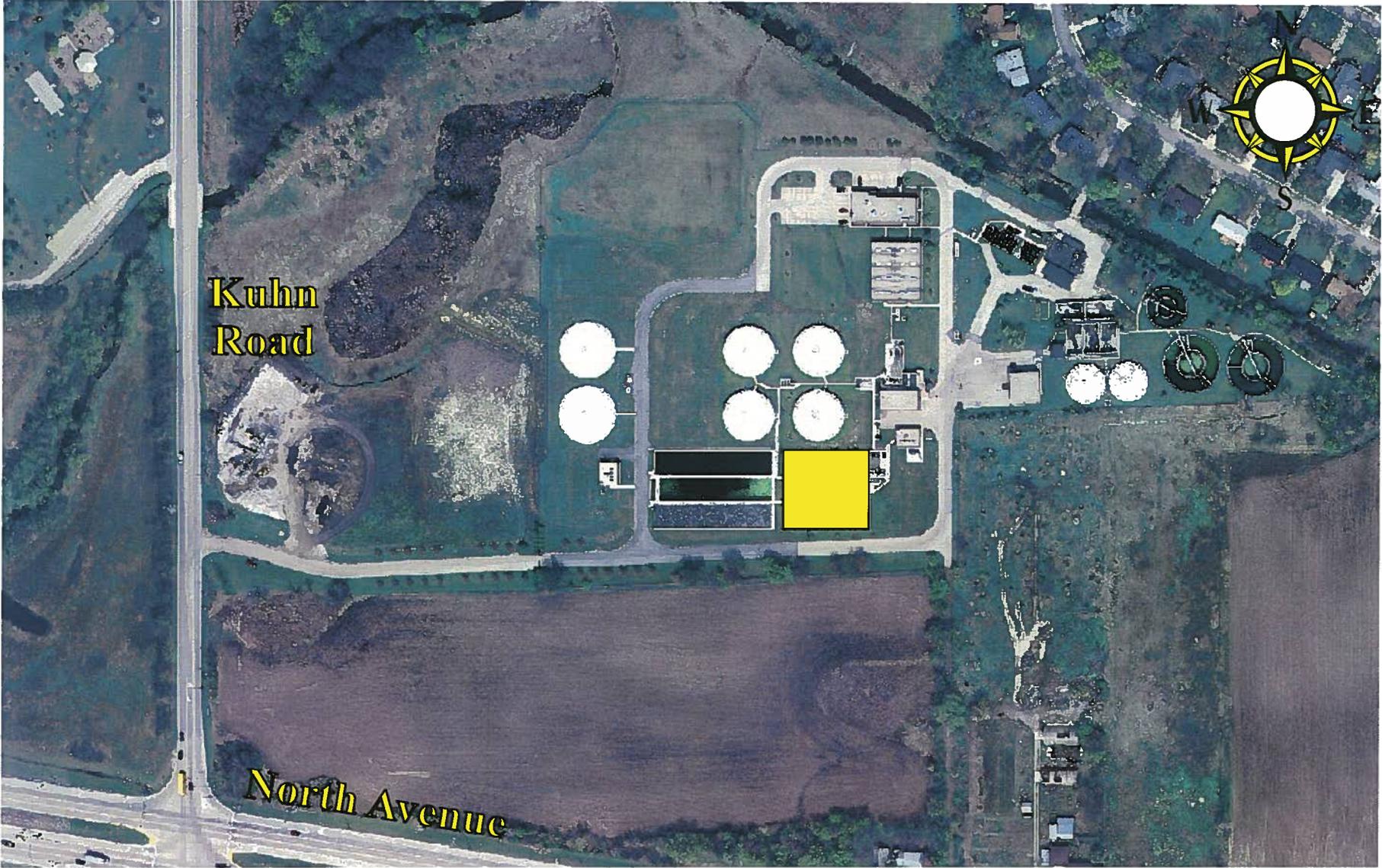
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/13 - 9/13	\$170,000
Construction	10/13 - 4/14	\$655,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$825,000

WRC Phase II Aeration System Improvement Project



Project Title: *Building Roof Replacement*

Responsible Department: *Public Works*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$195,000	\$0	\$50,000	\$65,000	\$80,000	\$0	\$0	\$0

Description & Scope: Replacement of roofs on various buildings at the WRC including: 23 year old sludge return building roof (FY14), 7 to 20 year old administration building roof (FY15), 19 year old blower building #1 roof (FY15) and 18 year old grit/screening building roof (FY16),

Purpose & Need: These building roofs were identified in a comprehensive analysis of roof conditions of all public works facilities performed in 2005.

Impact on Future Operating Budget: Failure to replace roofs can cause additional damage to building structure and contents and require additional maintenance costs.



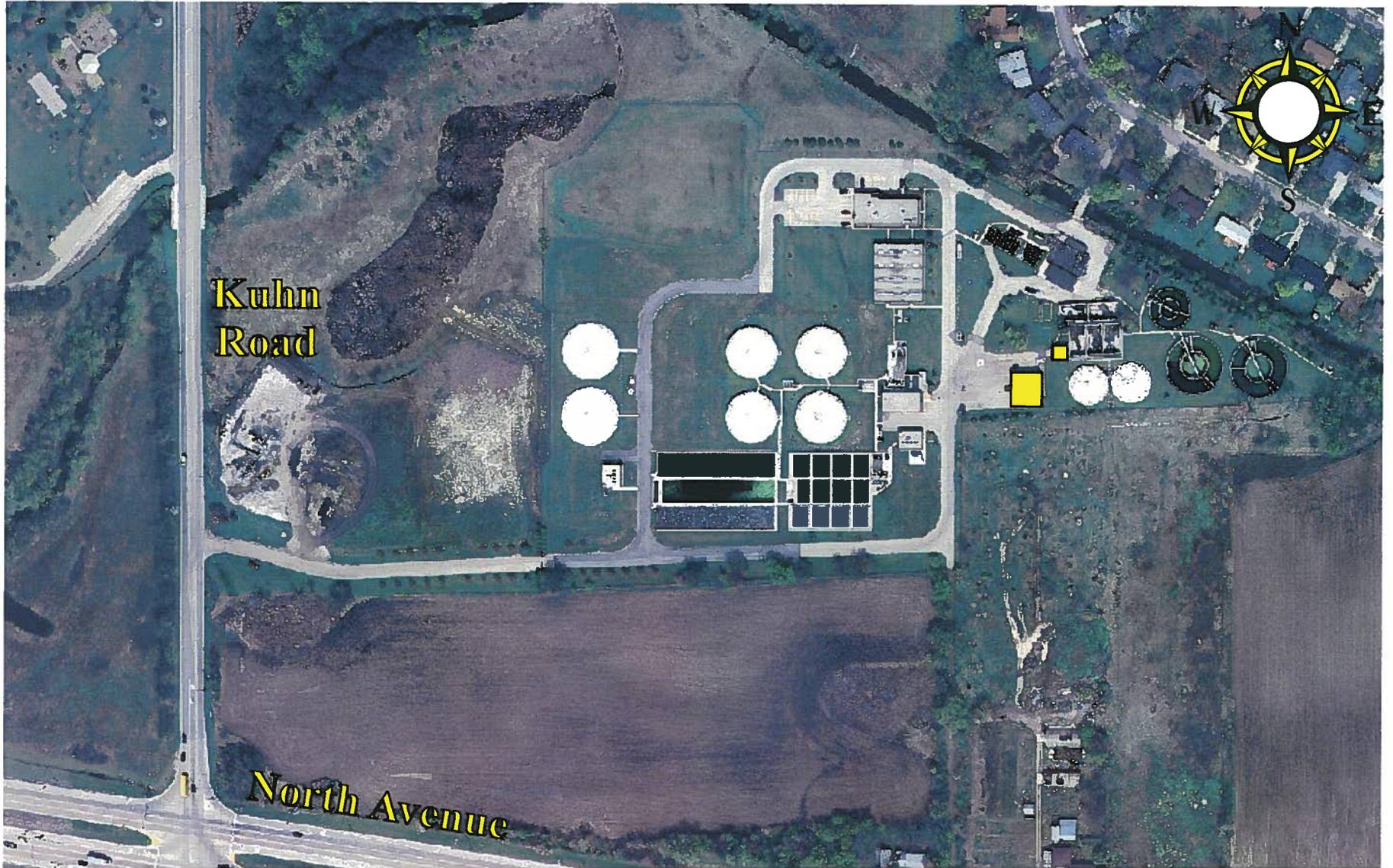
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Construction	5/13 - 4/14	\$50,000
Construction	5/14 - 4/15	\$65,000
Construction	5/15 - 4/16	\$80,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$195,000

Building Roof Replacement Project - WRC



Project Title: WRC Phase I Pumping Station Improvement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$1,250,000	\$0	\$0	\$1,250,000	\$0	\$0	\$0	\$0

Description & Scope: Rehabilitation of the impeller, splash plate, motor, drive, gearbox and grease pump for Primary Pumps 1 & 2 and Second Stage Pumps 1 & 2.

Purpose & Need: The pumping equipment moves the sewage through the various treatment processes. The equipment is aging and has been rated the number three (3) priority in the Baxter & Woodman Facility Inspection Report completed in late 2010.

Impact on Future Operating Budget: Replacement of equipment with newer, more energy efficient gear will offer some benefit to energy costs.



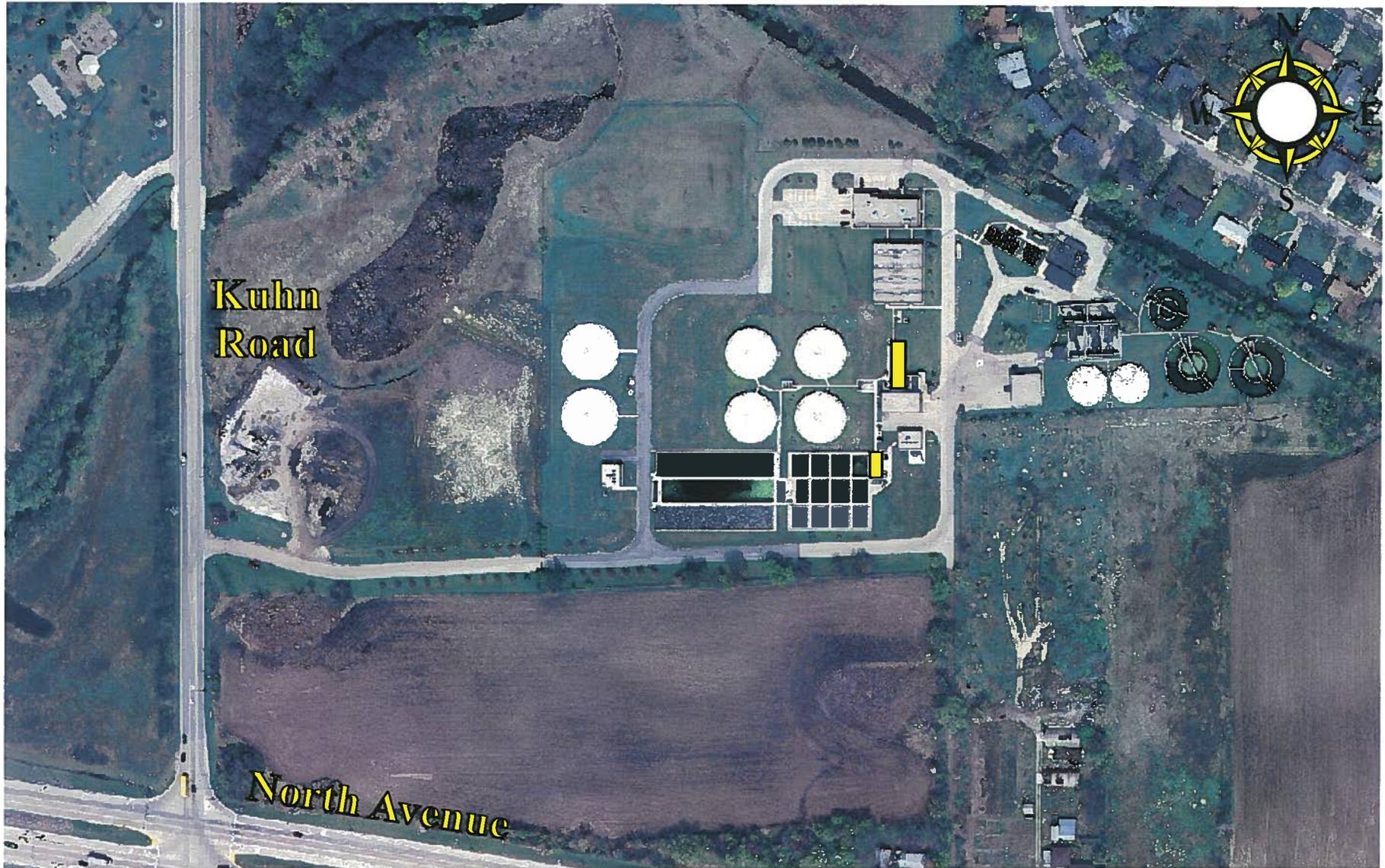
Schedule of Activities

Activity	From - To	Amount
Design	5/14 - 11/14	\$ 250,000
Design & Construction	12/14 - 4/15	\$1,000,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$1,250,000

WRC Phase I Pumping Station Improvement Project



Project Title: WRC Phase II Pumping Station Improvement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$650,000	\$0	\$0	\$0	\$650,000	\$0	\$0	\$0

Description & Scope: Rehabilitation of the impeller, splash plate, motor, drive, gearbox and grease pumps for Primary Pump #3 and Second Stage Pump #3.

Purpose & Need: The equipment is requiring increasing levels of maintenance and will have reached its useful life by the scheduled replacement date. This project has been rated as the number four priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

Impact on Future Operating Budget: This is a replacement of aging equipment that is critical to the operation of the facility. Without the project, operating costs will continue to rise to keep up with failing equipment. Replacement of equipment with newer, more energy efficient gear may offer some benefit to energy costs.



Schedule of Activities

Activity	From - To	Amount
Design	5/15 - 9/15	\$ 80,000
Construction	9/15 - 4/16	\$570,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$650,000

WRC Phase II Pumping Station Improvement Project



Project Title: WRC Dewatering System Improvement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$2,050,000	\$0	\$0	\$0	\$410,000	\$1,640,000	\$0	\$0

Description & Scope: Replacement of the belt filter presses with similar equipment. Replacement of the belt press, sludge de-watering pump, polymer feed system and all accompanying equipment.

Purpose & Need: The two existing belt presses are original equipment and other related equipment is aging and should be replaced as scheduled. This project has been rated as the number five priority in the Facility Inspection Report completed by Baxter & Woodman in late 2010.

Impact on Future Operating Budget: Sludge dewatering lowers hauling costs by lowering the water content of the sludge and thus the overall volume.



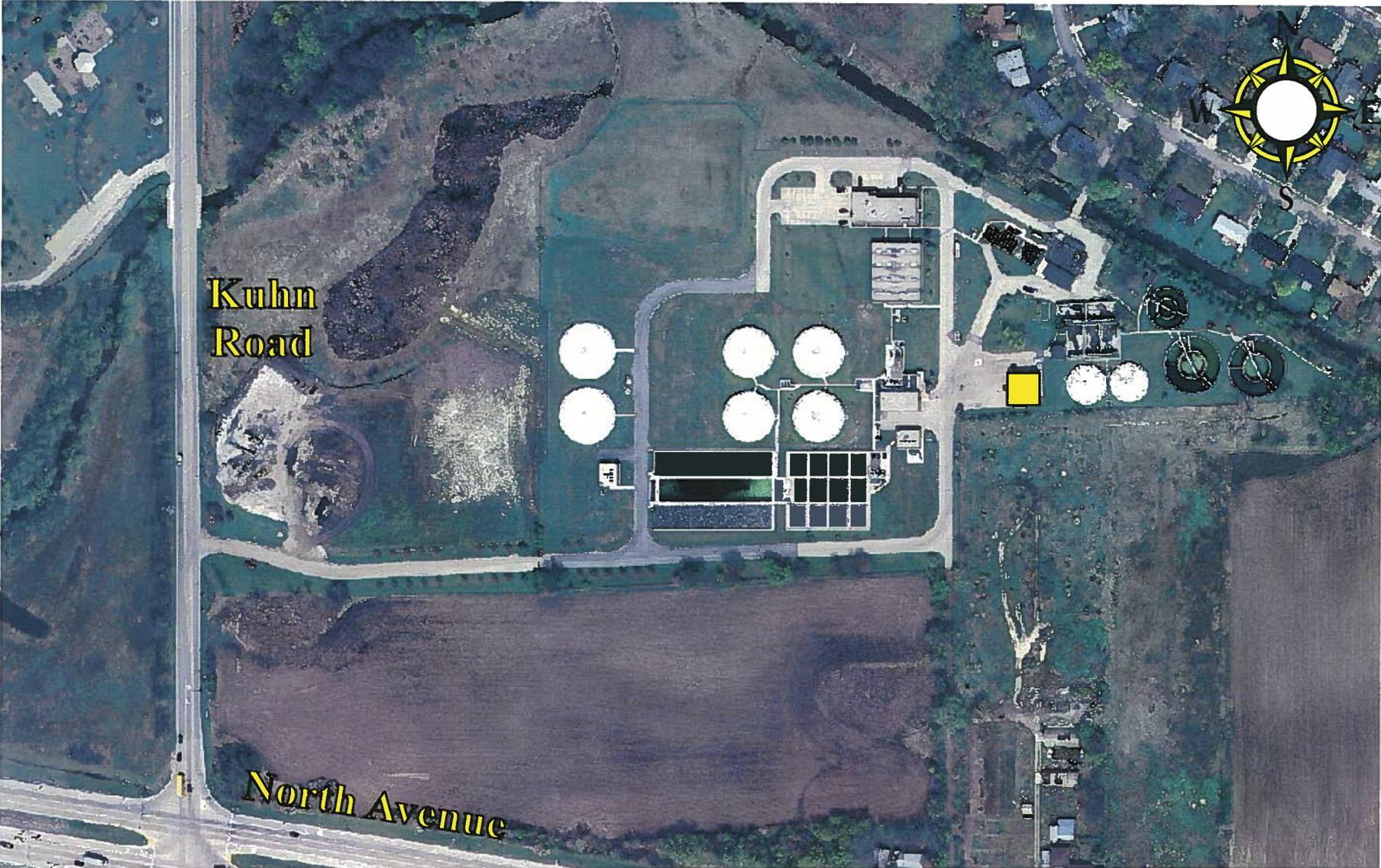
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/15 - 4/16	\$ 410,000
Construction	5/16 - 4/17	\$1,640,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$2,050,000

WRC Dewatering System Improvement Project



Project Title: WRC Blower Motor Drive Replacement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$110,000	\$0	\$0	\$0	\$0	\$0	\$110,000	\$0

Description & Scope: Rehabilitation of the motor and drive system for Blower Nos. 9 – 12.

Purpose & Need: Equipment will have reached the end of its useful life.

Impact on Future Operating Budget: More efficient motors and more control over deliver of air will reduce electric costs.



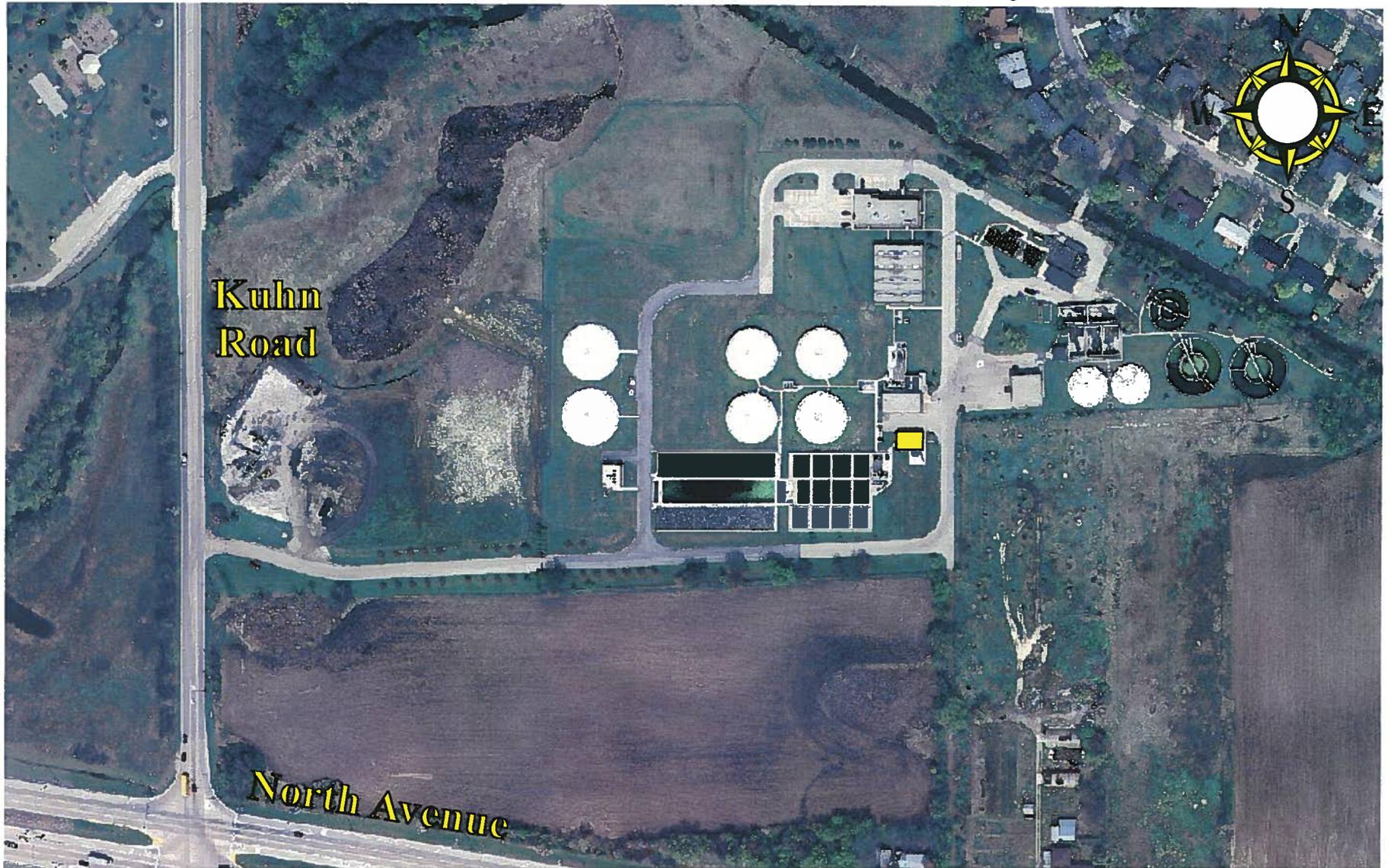
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/16 - 4/17	\$110,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$110,000

WRC Blower Motor Drive Replacement Project



Project Title: *WRC WAS Pump Replacement*

Responsible Department: *Public Works*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0

Description & Scope: Replacement of the existing Waste Activated Sludge (WAS) pumps with similar equipment at current capacity.

Purpose & Need: Equipment will have reached the end of its useful life.

Impact on Future Operating Budget: Replacement will help keep maintenance costs low.



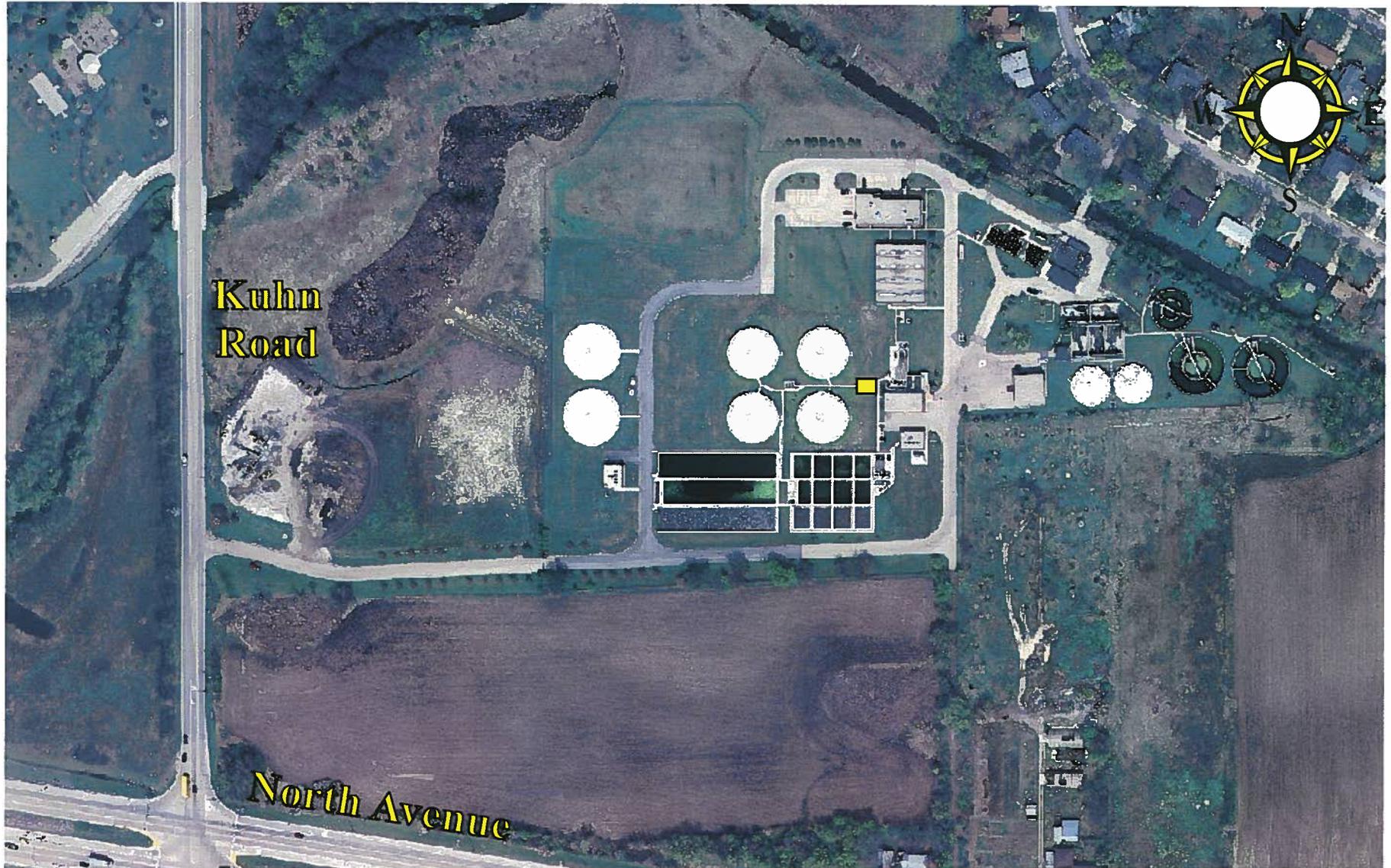
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/16 - 4/17	\$40,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$40,000

WRC WAS Pump Replacement Project



Project Title: GIS Utility System Update & Implementation

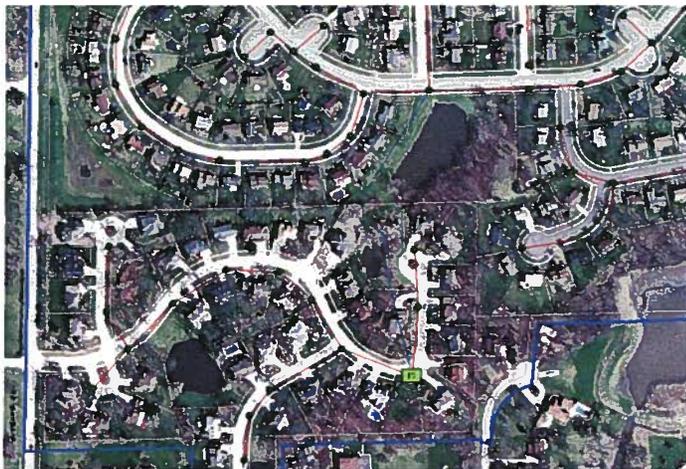
Responsible Department: Public Works & Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$140,000	\$0	\$0	\$140,000	\$0	\$0	\$0	\$0

Description & Scope: The first phase would complete the updating and build out of all water, sanitary and storm sewer system mapping features including: pipes, vaults, valves, hydrants and control and storage facilities, manholes, inlets, catch basins, outlets, culverts, best management practices, detention and retention basins, restrictors, pump stations, structures and other appurtenances. An analysis would also be performed to determine how the updated spatial data and existing Public Works databases could be linked. The second phase of the GIS project would complete the link of spatial data and existing data bases for water, storm and sanitary sewer systems.

Purpose & Need: The Village does not have an accurate or complete map of its water, sanitary or storm sewer system. These maps are crucial for performing locates, making repairs, performing maintenance, analyzing components and securing the system in emergencies. The information would be available to field staff for use on site as they perform work on the utility system. The data (and maps) would include information such as the location, age or work history of pipes, structures and other appurtenances.

Impact on Future Operating Budget: A complete GIS atlas of the entire Village utility infrastructure will better enable staff to assess, maintain, manage and control the systems. Use of this information would aid workers in more efficiently making repairs and in limiting scope and duration of service interruptions to customers.



Schedule of Activities

Activity	From - To	Amount
Study	5/14 - 4/15	\$140,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$ 70,000
Capital Projects Fund	\$ 70,000

Project Title: *Water System Studies*

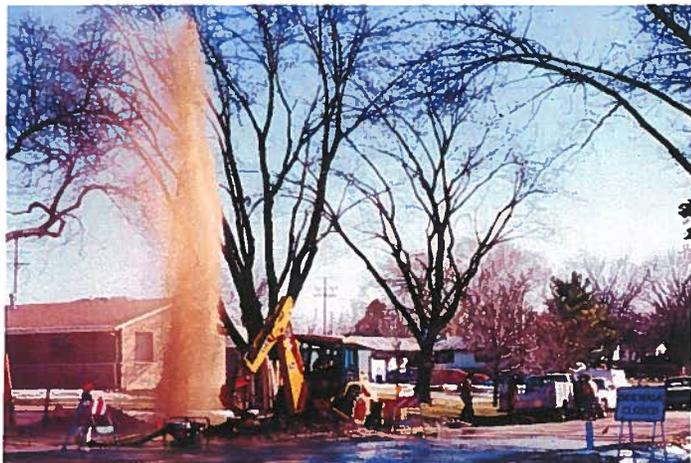
Responsible Department: *Engineering Services & Public Works*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$97,000	\$0	\$0	\$0	\$97,000	\$0	\$0	\$0

Description & Scope: Two studies will be performed. The Southwest Area Water & Sanitary Sewer Infrastructure Study identified the need for a reservoir, pumping station and connection to DuPage Water Commission’s trunk line along St. Charles Road to provide adequate fire flow to this area of the Village. The first study will determine when it’s most appropriate for the Village to make these improvements through an analysis of the system. The second study involves a comprehensive asset study of the Village’s entire water system including condition assessments and performance evaluations.

Purpose & Need: A study is required to ascertain the impact of additional connections from the Southwest Water Main extension Project on the fire flow demand before the Village undertakes these two previously mentioned expensive projects. The aging system is experiencing more water main breaks and some functional deficiencies have been observed. The last Village wide water system study was performed in 1988. The current Capital Improvement Program includes several water main replacement projects totaling over \$3 million in the next five years. Staff is proposing suspending those projects in favor of the comprehensive water system analysis. A system wide performance study and condition assessment is needed.

Impact on Future Operating Budget: The first study will give the Village a better indicator as to when future improvements are needed in order to provide adequate fire flows in the southwest area of the Village. The second study will provide a comprehensive condition assessment and performance evaluation of the water system that will allow the Village to better prioritize and target infrastructure maintenance programs and replacement and expansion projects for the next ten years.



Schedule of Activities

Activity	From - To	Amount
Water System Analysis & Asset Study	5/15 - 4/16	\$85,000
SW Water System Study Update	5/15 - 4/16	\$12,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$97,000

Project Title: *Southwest Reservoir & Pumping Station*

Responsible Department: *Engineering Services*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$4,094,000	\$0	\$0	\$0	\$949,000	\$3,145,000	\$0	\$0

Description & Scope: This project involves the construction of a ground level reservoir and pumping station to serve the southwest area of the Village as well as the unincorporated areas with clean reliable potable water. Land acquisition will also be necessary to site the facilities.

Purpose & Need: Upon the completion of the Southwest Water Main Extension Project and as users connect onto the system a reservoir and pumping station will be necessary to provide adequate pressure and flow. The Southwest Area Water & Sanitary Sewer Infrastructure Study identified this need in the final report. It's anticipated this need will be realized by FY15 although it may occur sooner depending on the demand for connections and for flow.

Impact on Future Operating Budget: The new reservoir will require annual inspections and routine maintenance of the pumps, motors and valves. Periodic maintenance involving painting of the structures will also be necessary.



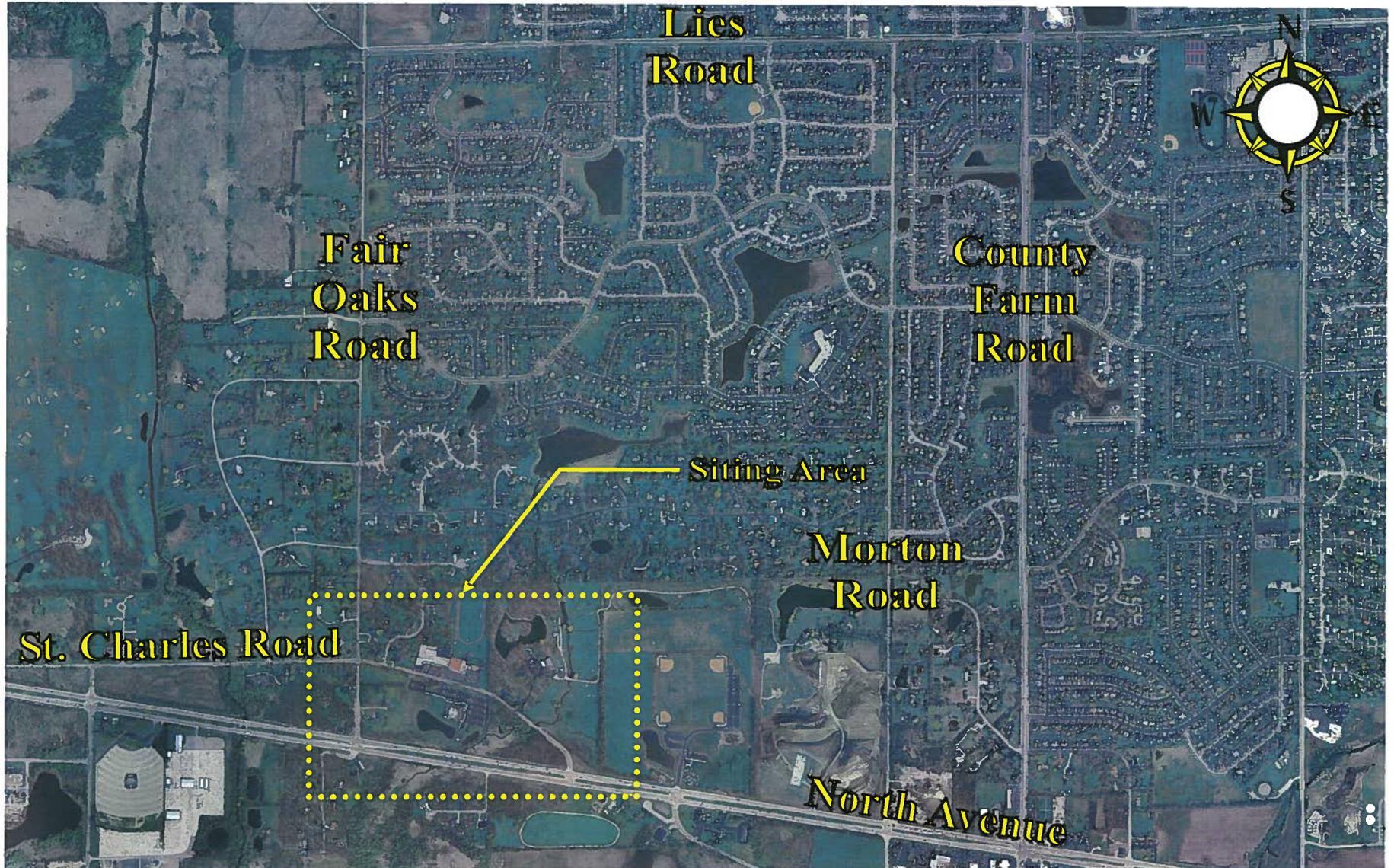
Schedule of Activities

Activity	From - To	Amount
Land Acquisition	5/15 - 4/16	\$ 658,000
Design	5/15 - 4/16	\$ 291,000
Construction	5/16 - 4/17	\$3,145,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$4,094,000

Southwest Reservoir & Pumping Station



Project Title: Southwest DPWC Connection & Metering Station

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$2,933,000	\$0	\$0	\$0	\$249,000	\$2,684,000	\$0	\$0

Description & Scope: A connection to the DuPage Water Commission’s 48 inch diameter trunk line will be needed to properly supply water for the ground level reservoir and pumping station. These improvements will serve the Village and unincorporated residents with clean reliable water for potable use and fire suppression. Land acquisition will be required to site the facilities, but is assumed to have occurred with the reservoir and pumping station project.

Purpose & Need: As more users connect onto the system the connection and metering station will be necessary to provide adequate pressure and flow. This need was identified in the Southwest Area Water & Sanitary Sewer Infrastructure Study. As with the reservoir and pumping station, these improvements are anticipated to be needed by FY15. However, depending on the demand for connections this projected construction date may change.

Impact on Future Operating Budget: The new connection and metering station will require annual inspections and routine maintenance of the pumps, motors and valves. Periodic maintenance involving painting of the structures will also be necessary.



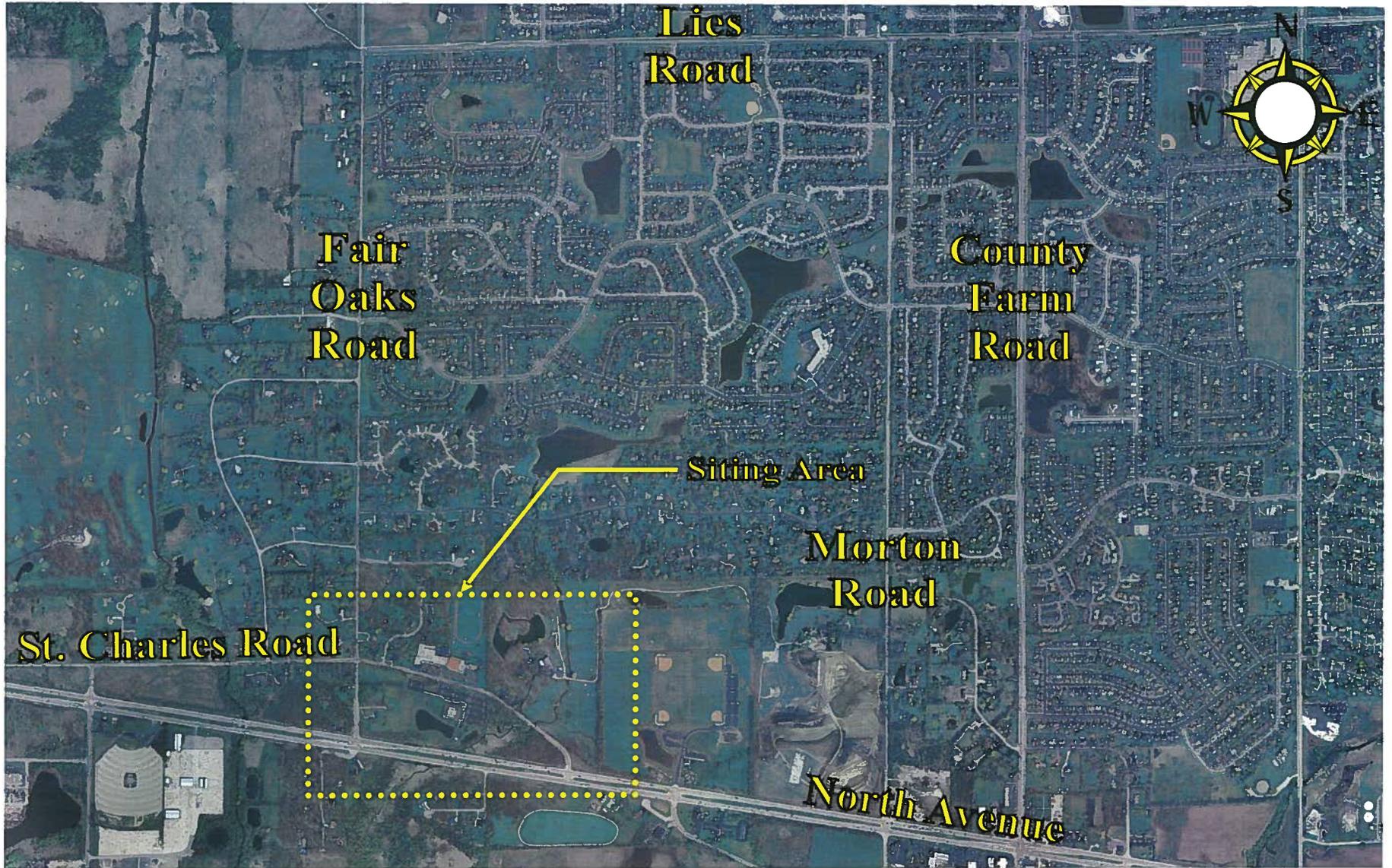
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/15 - 4/16	\$ 249,000
Construction	5/16 - 4/17	\$2,684,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$2,933,000

Southwest DuPage Water Commission Connection & Metering Station



Project Title: Schmale Road Water Main Replacement

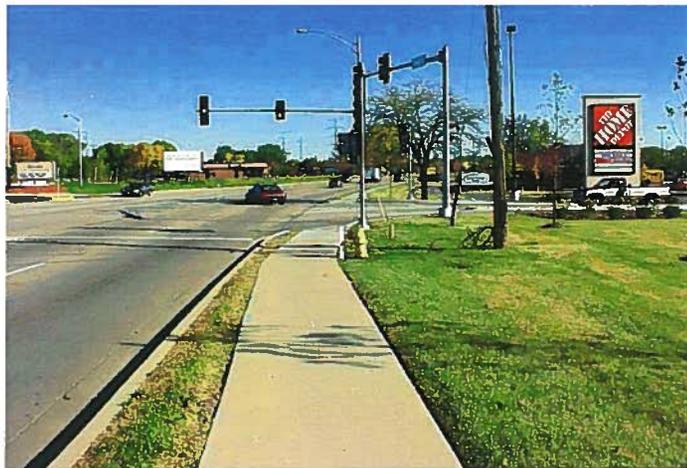
Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$2,126,000	\$0	\$167,000	\$309,000	\$1,650,000	\$0	\$0	\$0

Description & Scope: The project consists of replacing and/or upsizing 4,800 feet of 10” and 12” cast iron pipe (CIP) with DIP along Schmale Road. The limits of the project begin south of North Avenue and extend to Geneva Road. The water main would be relocated out from under the pavement.

Purpose & Need: Cast iron water mains were installed early in the Village’s life and have had more frequent breaks and required more maintenance. Public Works identified recent water main breaks in this system.

Impact on Future Operating Budget: Relocating water main out from under the pavement will greatly lessen repair costs. Replacing CIP with DIP will give the system more uniform pressure with less maintenance, far superior reliability and significantly less repair costs. Addition of new water main will require routine maintenance involving hydrant flushing, valve exercising and hydrant painting.



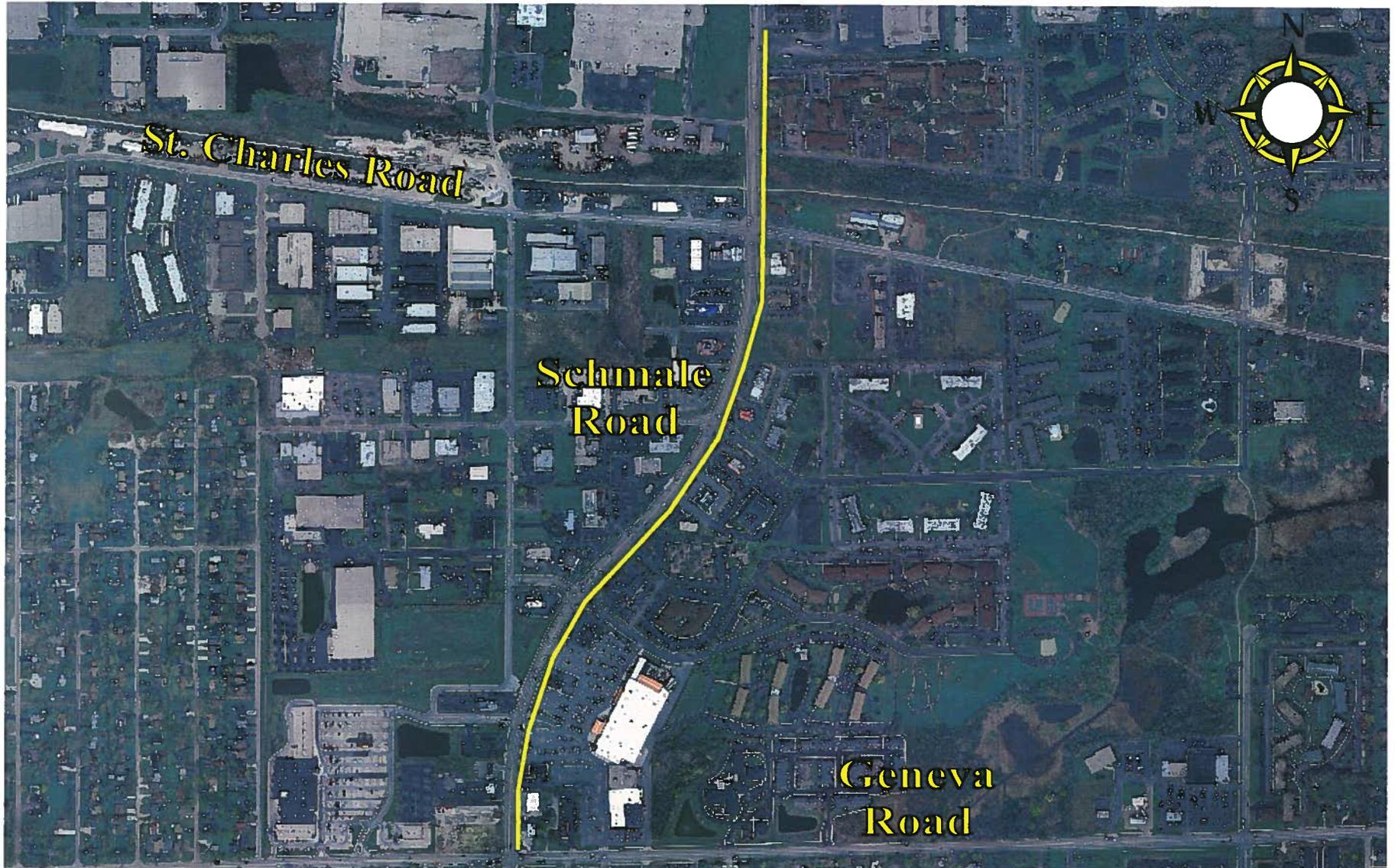
Schedule of Activities

Activity	From - To	Amount
Concept Plan	5/13 - 4/14	\$ 8,000
Easement Acquisitions	5/13 - 4/15	\$ 318,000
Design	5/13 - 4/15	\$ 150,000
Construction	5/15 - 4/16	\$1,650,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$2,126,000

Schmale Road Water Main Replacement Project



Project Title: *Aztec Drive Sanitary Sewer Replacement*

Responsible Department: *Engineering Services*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$623,000	\$0	\$0	\$0	\$52,000	\$571,000	\$0	\$0

Description & Scope: This project will replace 1,400 feet of vitrified clay pipe (VCP) with new polyvinyl chloride (PVC) pipe that has far better and fewer joints. This replacement project will also reduce infiltration into the system.

Purpose & Need: The sanitary sewer line on Aztec Drive from Ute Lane to Chippewa Trail is constructed out of VCP. It is severely prone to root intrusions causing back-ups to connecting home services. Through the Village’s Sanitary Sewer Digital Televising Program cracks, sags and offset joints have been identified. These deteriorations have lead to pipe failures, infiltration and sewer backups. This project is designed to help alleviate those issues and to maintain the Village’s sanitary sewer system in a safe and reliable operating condition.

Impact on Future Operating Budget: Replacing or rehabilitating the deteriorated sewer sections will reduce the likelihood of pipe failures and sewer backup exposure while also reducing calls for maintenance and repair.



Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/15 - 4/16	\$ 52,000
Construction	5/16 - 4/17	\$571,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$623,000

Aztec Drive Sanitary Sewer Replacement Project



Project Title: Sanitary Sewer I&I Reduction Program

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$50,000	\$0	\$0	\$0	\$0	\$0	\$50,000	\$2,700,00

Description & Scope: This Program will involve a series of projects that will rehabilitate deteriorated sanitary sewers that have been identified in the Sanitary Sewer System Evaluation Studies for I&I reduction. Various rehabilitation alternatives, such as relining, replacement and boring will be considered during the design phase of each project.

Purpose & Need: The Village has approximately 100 miles of sanitary sewers. As the sewers age some areas develop sags and cracks which can lead to pipe failures, inflow, infiltration and possible sewer backups. This rehabilitation / replacement program is designed to address those issues and to maintain the Village’s sanitary sewer system in a safe and reliable operating condition.

Impact on Future Operating Budget: Replacing or rehabilitating the deteriorated sewer sections will reduce the likelihood of pipe failures and sewer backup exposure. Other repairs will restore the sanitary sewer system to a safe and reliable operating state.



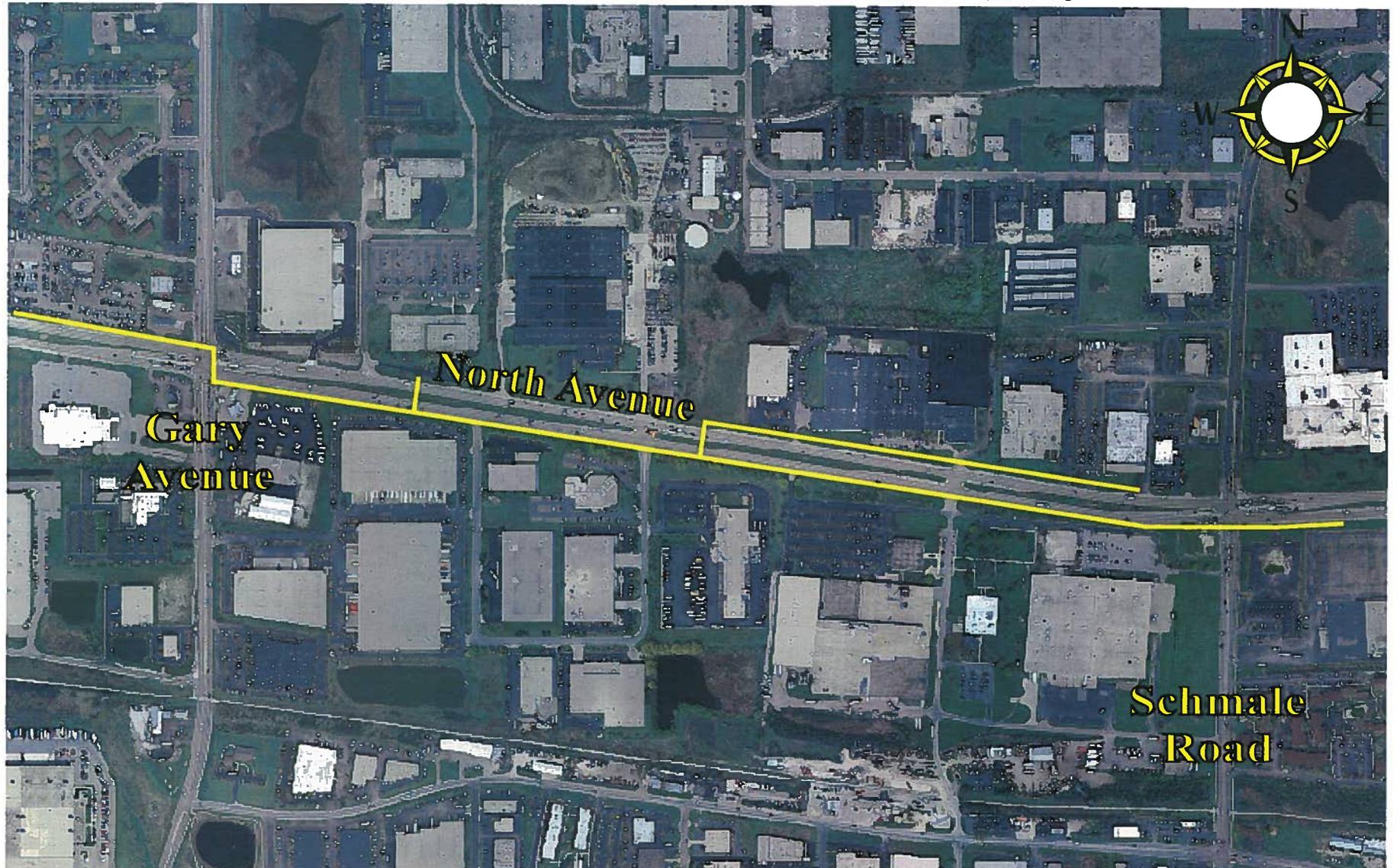
Schedule of Activities

Activity	From - To	Amount
Design Study & Final Engineering	5/17 - 4/18	\$ 50,000
Construction	5/18 - 4/19	\$550,000

Means of Financing

Funding Source	Amount
Water & Sewer Fund	\$50,000

Sanitary Sewer I&I Reduction (North Avenue) Project



Project Title: WRC Streetlight Replacement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$30,000	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: Installation of up to 9 new poles and LED light heads on the grounds of the Water Reclamation Center.

Purpose & Need: The existing poles are deteriorating and the existing light heads are old, less efficient technology.

Impact on Future Operating Budget: Installation of light heads are projected to decrease related electrical costs by up to forty percent.



Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design & Construction	5/13 - 4/14	\$30,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Water & Sewer Fund	\$30,000

WRC Streetlight Replacement Project



Project Title: Klein Creek Flood Plain Structure Phase II Buyout

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$301,285	\$264,285	37,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: The project entails the purchase of four properties that have experienced repetitive flood damages. The structures would be demolished and the vacant land returned to open space per FEMA and Hazard Mitigation Grant Program (HMGP) requirements. Three of the four homes (Phase I) were already purchased and demolished in FY12. The fourth home (Phase II) was purchased in FY13 with demolition and restoration to occur in FY14.

Purpose & Need: The Village of Carol Stream has received funding for the acquisition of four flood-prone properties within our jurisdiction. Each of the four properties contains a single-family home located in the Klein Creek 1% floodplain. The homes (as well as other homes in their neighborhood) all sustained thousands of dollars in damages from the September 2008 and 2010 floods, and have been repeatedly subject to flood damage over the past forty plus years. All four properties received IEMA HMGP funding and three of the four received DuPage County funding. The Village obtained \$304,851 in DCEO CDBG funding for the fourth home. The owners of all four properties have volunteered to participate in these buy-out programs.

Impact on Future Operating Budget: The project will permanently eliminate the exposure of four properties (and families) to floods. It is additionally hoped that a successful buyout program for these properties will become an impetus for additional mitigation buyouts of similarly threatened properties within our community. There will also be fewer requests for flood damage assistance.



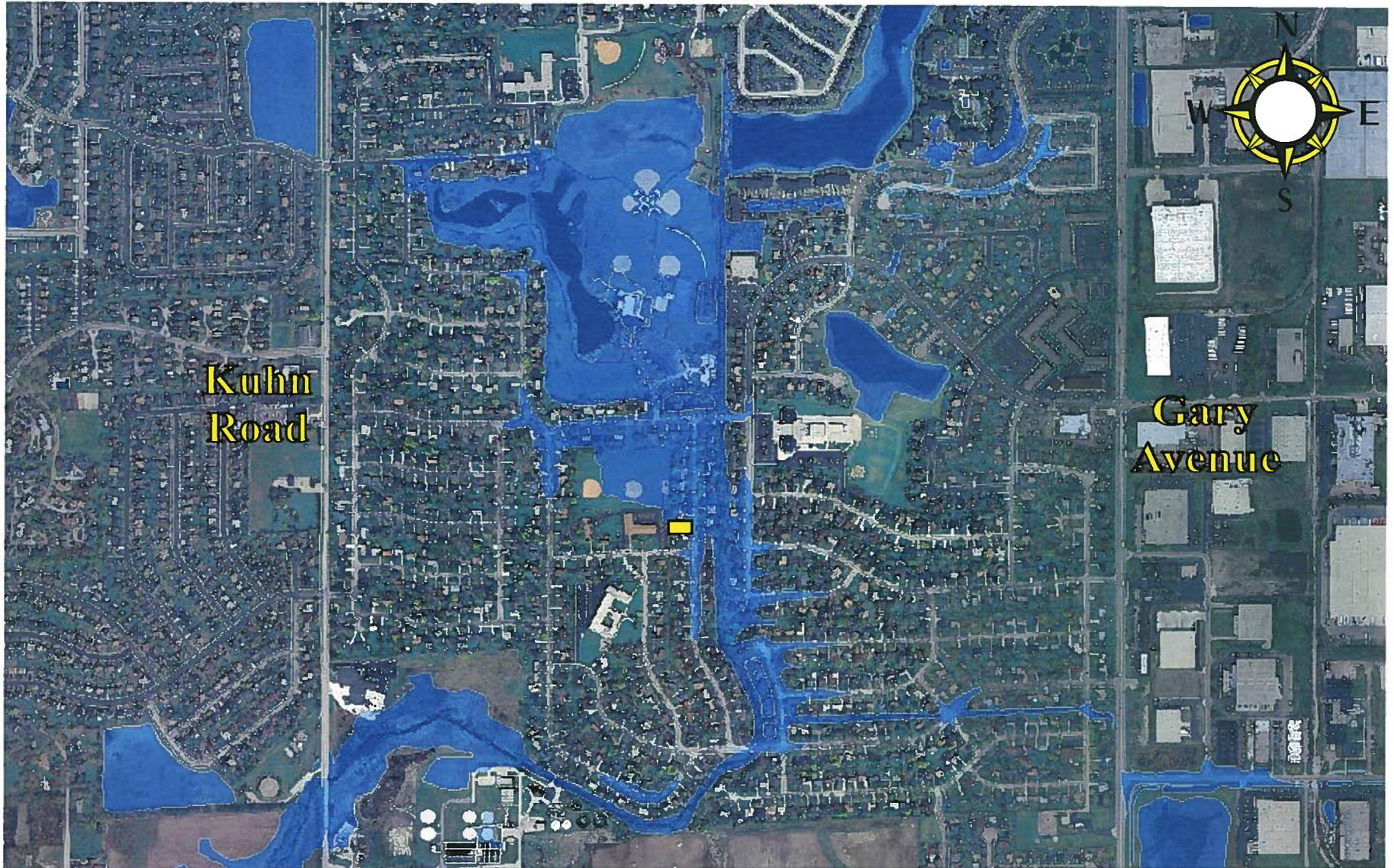
Schedule of Activities

Activity	From - To	Amount
Demolition & Restoration	5/13 - 10/13	\$ 37,000

Means of Financing

Funding Source	Amount
DCEO CDBG	\$301,285

Klein Creek Flood Plain Structure Phase II Buyout Project



Project Title: *Southeast Stormwater Study*

Responsible Department: *Engineering Services*

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$84,000	\$0	\$84,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: A storm water study will be performed analyzing the watershed’s existing storm water management facilities and identify improvements to reduce street and parking lot flooding, flood damages and road closures.

Purpose & Need: The southeast area of the Village from Main Street and Gundersen Drive to Northland Mall on Geneva Road has experienced flooding on repeated occasions. Parking lots, streets and buildings have flooded with cars and stores being damaged. The drainage area extends north all the way up to North Avenue with several developments with ineffective or no detention at all.

Impact on Future Operating Budget: There will be fewer responses for road closures improving traffic flow. There will also be fewer requests for flood damage assistance.



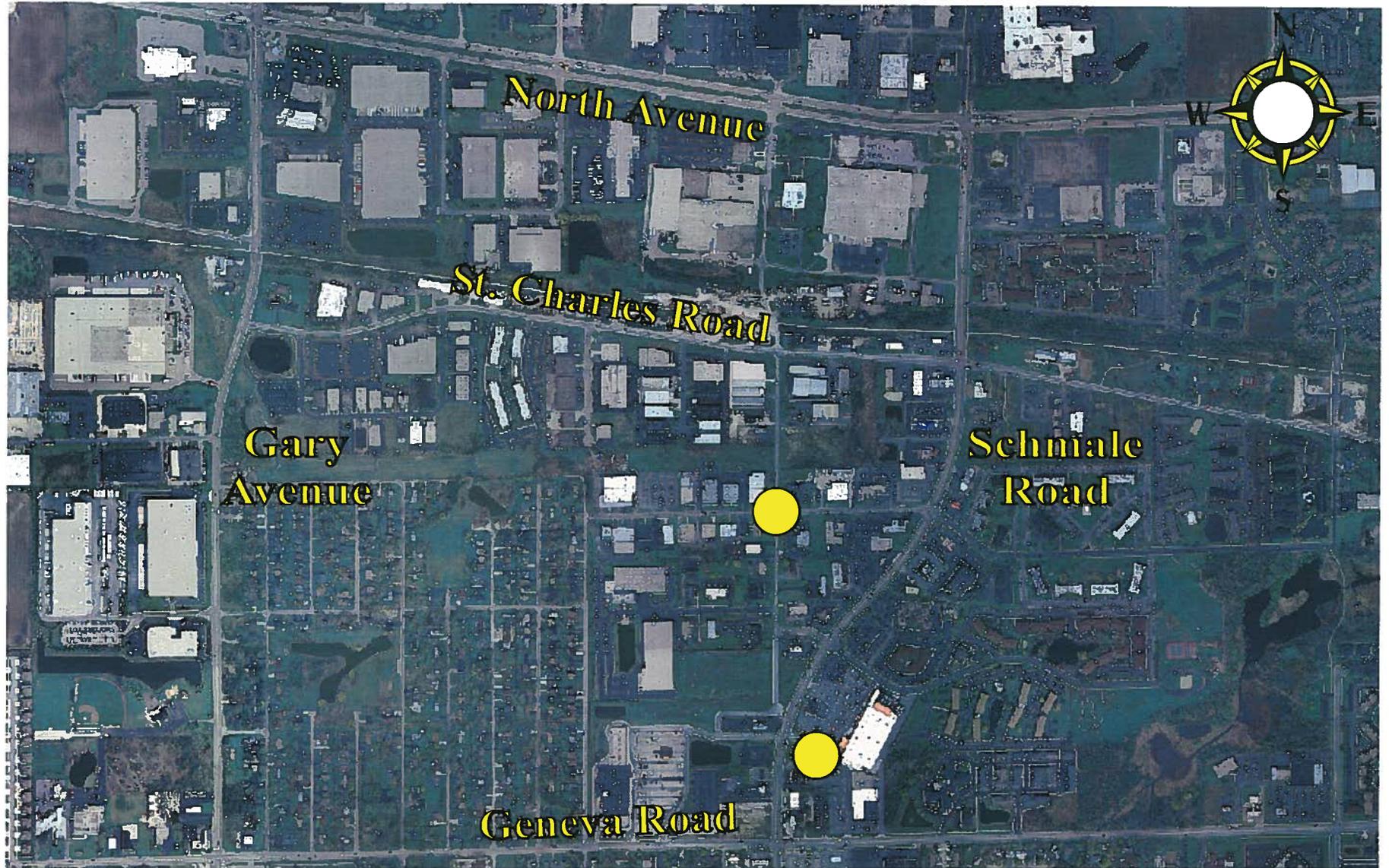
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Study	5/12 - 4/14	\$84,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$84,000

Southeast Stormwater Study



Project Title: Tubeway & Westgate Stormwater Study

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0

Description & Scope: A watershed and storm water management facility study will be undertaken to identify improvements to reduce flooding in the Rothbart Subdivision and to rehabilitate the existing detention basin.

Purpose & Need: The existing detention basin has become overgrown with undergrowth, trees, non-native and invasive species. The bottom has two to three feet of sedimentation that has built up over the years clogging outfall pipes and reducing the efficiency of the lift station pumps. The overgrowth and sedimentation has also reduced the storage capacity of the detention basin. The pond has overtopped causing street, parking lot and truck dock flooding.

Impact on Future Operating Budget: Reducing overflows and street flooding will prolong pavement life and lessen the amount of time spent on road closures.



Schedule of Activities

Activity	From - To	Amount
Study	5/14 - 4/15	\$40,000

Means of Financing

Funding Source	Amount
Capital Projects Fund	\$40,000

Tubeway & Westgate Stormwater Study



Project Title: Salt Dome Roof Replacement

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$60,000	\$0	\$60,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: The project involves removal and replacement on existing salt dome structure. The roof was installed new in 1995 when the dome was constructed; it is made of plywood decking with asphalt shingle water shedding roof system.

Purpose & Need: This project was identified as part of a comprehensive analysis of roofs throughout all public works facilities conducted in 1995. The roof has required typical maintenance since installation but has recently shown signs of accelerating deterioration. Protection of salt dome contents is critical for protecting large investment in salt.

Impact on Future Operating Budget: Failure to replace the roof will increase likelihood of loss of salt inventory and increase on-going maintenance costs.



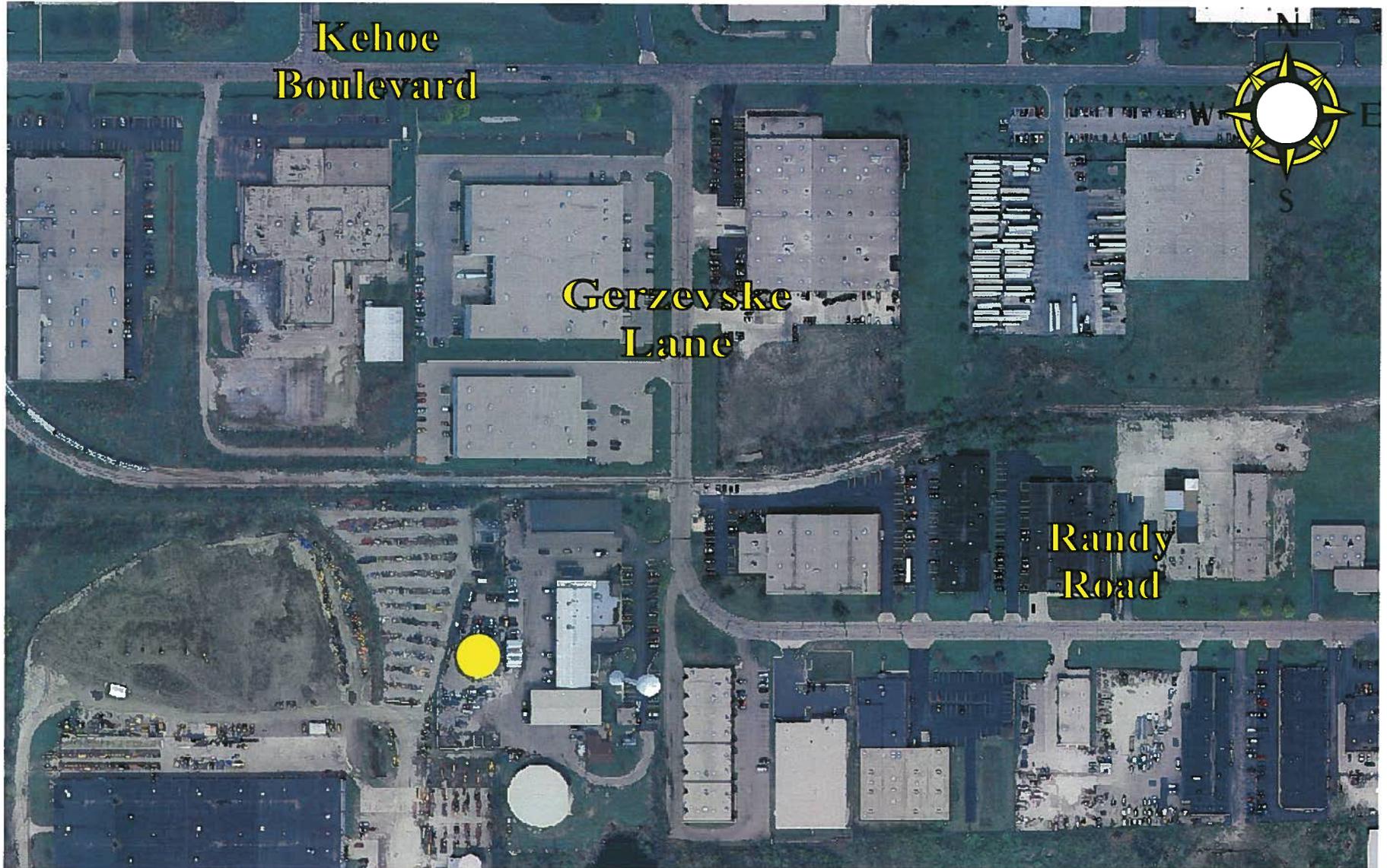
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Construction	5/13 - 7/13	\$60,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$60,000

Salt Dome Roof Replacement Project



Project Title: PWC North Garage Roof Replacement Project

Responsible Department: Public Works

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$330,000	\$0	\$330,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: The project involves the replacement of roof on the north vehicle/equipment storage garage at the Public Works Center.

Purpose & Need: During an inspection in the past year it was discovered that the roof was deteriorating faster than anticipated, with specific concern at the many points where the roof is secured to the building frame.

Impact on Future Operating Budget: Failure to replace rook will result in continuing maintenance costs and potential loss of building use and/or stored equipment should roof structure fail.



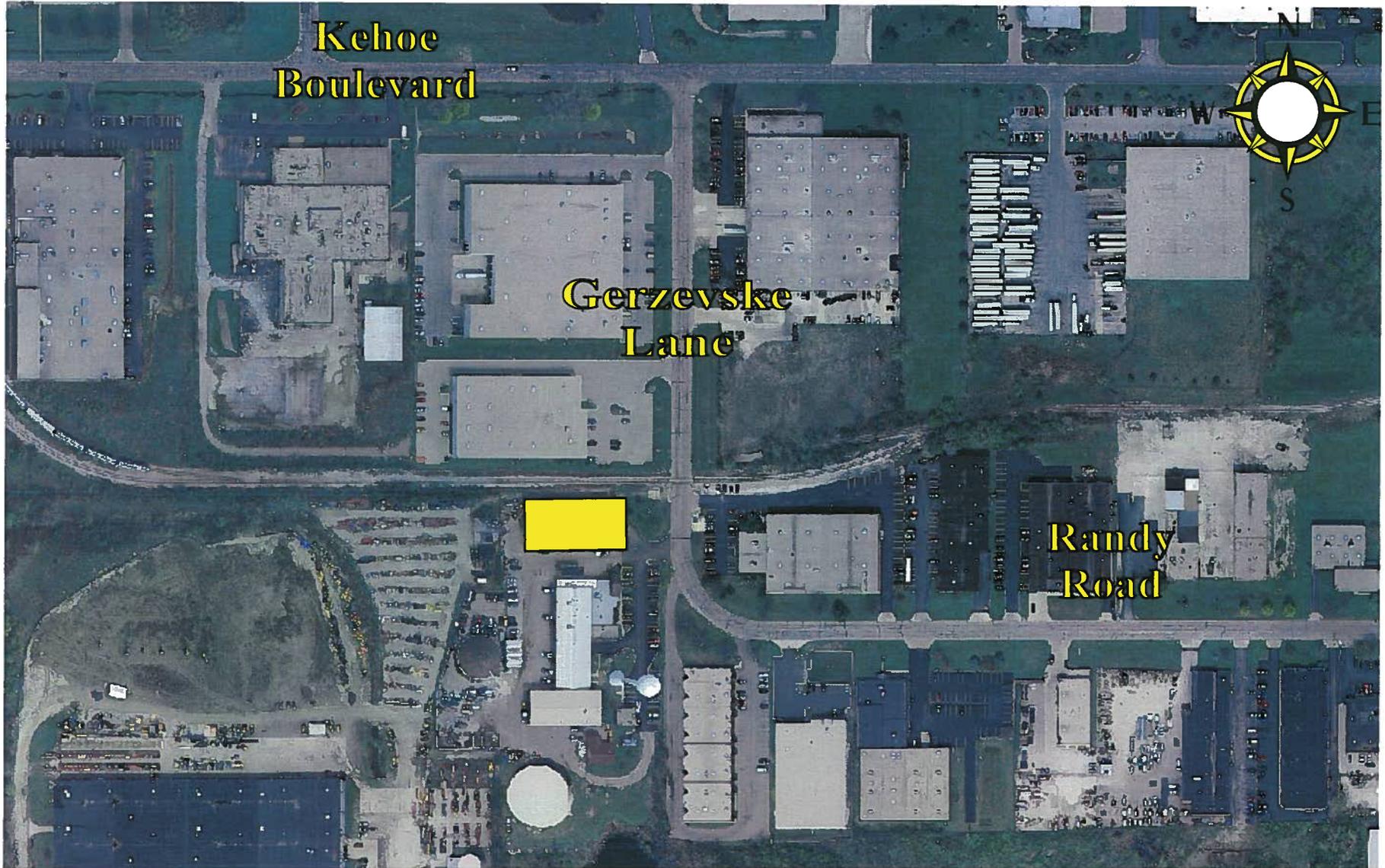
Schedule of Activities

Activity	From - To	Amount
Construction	5/13 - 4/14	\$330,000

Means of Financing

Funding Source	Amount
Capital Projects Fund	\$330,000

PWC North Garage Roof Replacement Project



Project Title: Fullerton Storage Building

Responsible Department: Engineering Services

Total Project Cost	Total Expended To Date	Budget Year 1 2013-14	Unappropriated Subsequent Years				Future Funding Requirements
			Year 2 2014-15	Year 3 2015-16	Year 4 2016-17	Year 5 2017-18	
\$314,000	\$0	\$314,000	\$0	\$0	\$0	\$0	\$0

Description & Scope: A new storage facility approximately 2,300 square feet in size will be constructed at the Village’s Well No. 3 and Elevated Water Tank site located off Fullerton Avenue. The structure will include a fire suppression system, HVAC, fencing and gates, paved access, water, electrical and gas services, lighting, second floor attic storage with stairs, drainage improvements, landscaping and rodent control.

Purpose & Need: The Village Hall lacks ample space for the storage of materials, equipment and records. The facility will allow secure storage of these items in a climate controlled structure.

Impact on Future Operating Budget: Normal operating expenses (electric, heating, A/C and rodent control) will be necessary. All exterior materials will be maintenance free or low maintenance. Eventually the roof will need to be re-shingled.



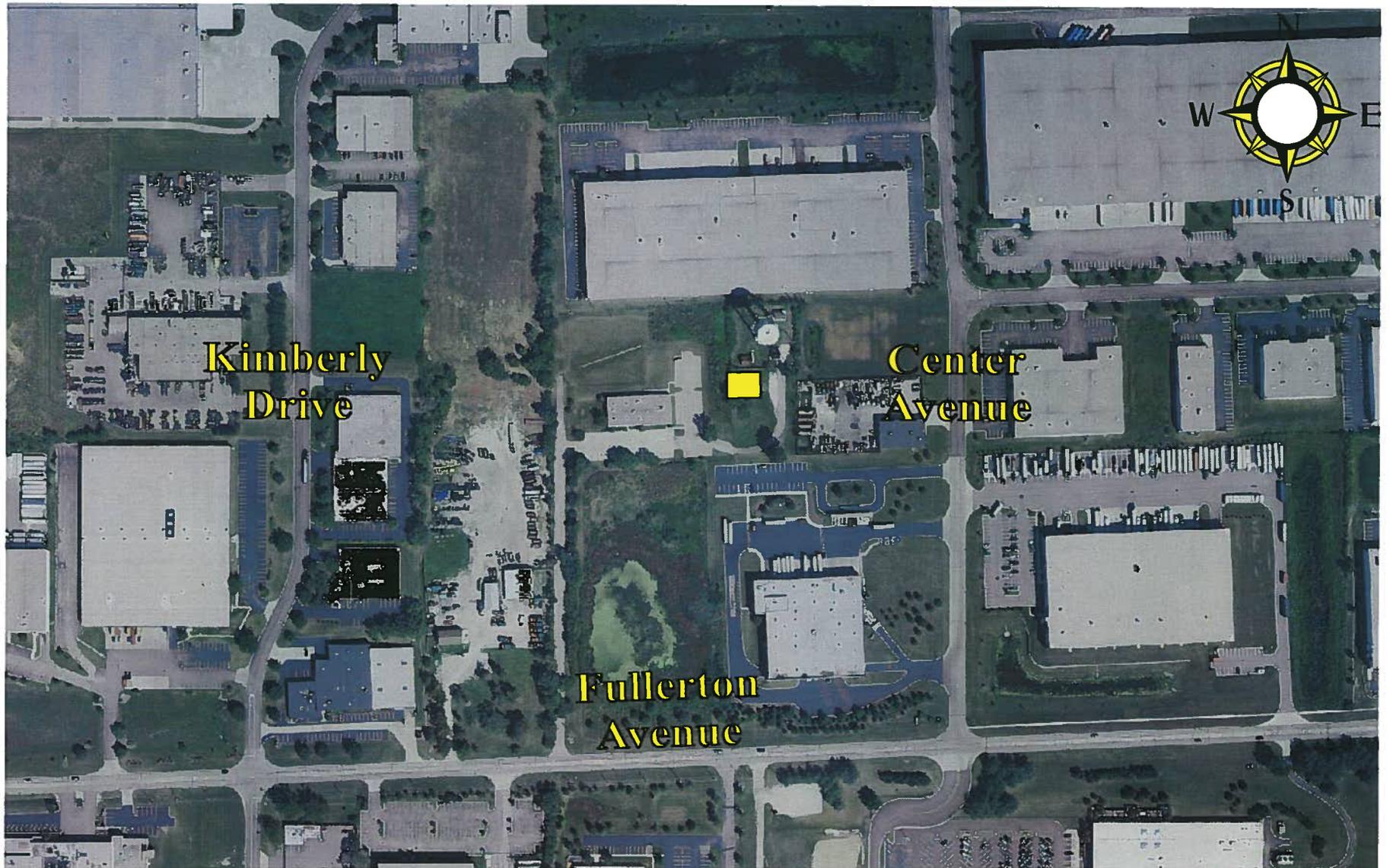
Schedule of Activities

<u>Activity</u>	<u>From - To</u>	<u>Amount</u>
Design	5/13 - 7/13	\$ 14,000
Construction	7/13 - 4/14	\$300,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Capital Projects Fund	\$314,000

Fullerton Storage Building Project



CAPITAL IMPROVEMENT PROGRAM
FY18/19 THROUGH FY22/23

CIP Projects By Fund (\$000)	Fund	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	Total
<u>Roadway System</u>							
1. Pavement Preventative Maintenance Program	CPF	\$572	\$597	\$622	\$648	\$676	\$3,115
2. Flexible Pavement Program	CPF	\$0	\$4,456	\$3,114	\$3,617	\$5,159	\$16,346
3. Flexible Pavement Program	MFT	\$3,828	\$0	\$0	\$0	\$0	\$3,828
4. Vale Rd. Rehabilitation	CPF	\$139	\$0	\$0	\$0	\$0	\$139
5. Doris Ave. Rehabilitation	CPF	\$277	\$0	\$0	\$0	\$0	\$277
6. Kuhn Rd. Rehabilitation	CPF	\$0	\$0	\$271	\$0	\$0	\$271
7. Morton Rd. Rehabilitation	CPF	\$0	\$0	\$1,294	\$0	\$0	\$1,294
8. Fair Oaks Rd. Rehabilitation	CPF	\$0	\$0	\$0	\$903	\$0	\$903
9. Old Gary Ave. Rehabilitation	CPF	\$0	\$0	\$0	\$393	\$0	\$393
10. Streetlight Replacement Program	CPF	\$375	\$0	\$0	\$400	\$0	\$775
Subtotal:		\$5,191	\$5,053	\$5,301	\$5,961	\$5,835	\$27,341
<u>Water and Sewer Utilities</u>							
1. WRC Secondary Clarifier Improvements	W/S	\$0	\$295	\$1,485	\$0	\$0	\$1,780
2. WRC Spencer Motor Drive Replacement	W/S	\$0	\$0	\$0	\$0	\$140	\$140
3. WRC Dewater Sludge Pumps A/B Replacement	W/S	\$0	\$0	\$0	\$0	\$60	\$60
4. WRC Digester Pump Replacement	W/S	\$0	\$0	\$0	\$0	\$136	\$136
5. Sanitary Sewer I&I Reduction	W/S	\$550	\$550	\$500	\$0	\$0	\$1,600
6. SW Sanitary Lift Station & Force Main	W/S	\$1,334	\$0	\$0	\$0	\$0	\$1,334
7. SW Sanitary Sewer Extension	W/S	\$65	\$702	\$0	\$0	\$0	\$767
8. St. Charles Rd. Sanitary Sewer Extension	W/S	\$0	\$0	\$310	\$3,011	\$335	\$3,656
Subtotal:		\$1,949	\$1,547	\$2,295	\$3,011	\$671	\$9,473
<u>Facilities</u>							
1. None	CPF	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal:		\$0	\$0	\$0	\$0	\$0	\$0
<u>Stormwater Utility</u>							
1. None	CPF	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal:		\$0	\$0	\$0	\$0	\$0	\$0
<u>Project Management Services</u>							
	CPF	\$128	\$131	\$135	\$139	\$144	\$677
Total Expenditures All Funds:		\$7,268	\$6,731	\$7,731	\$9,111	\$6,650	\$37,491

CAPITAL IMPROVEMENT PROGRAM

FY23/24 THROUGH FY32/33

	<u>Fund</u>	<u>FY</u> <u>23/24</u>	<u>FY</u> <u>24/25</u>	<u>FY</u> <u>25/26</u>	<u>FY</u> <u>26/27</u>	<u>FY</u> <u>27/28</u>	<u>FY</u> <u>28/29</u>	<u>FY</u> <u>29/30</u>	<u>FY</u> <u>30/31</u>	<u>FY</u> <u>31/32</u>	<u>FY</u> <u>32/33</u>
<u>Roadway System</u>											
1. Pavement Preventative Maintenance Program	CPF	X	X	X	X	X	X	X	X	X	X
2. Flexible Pavement Program	CPF	X	X	X	X	X	X	X	X	X	X
4. Doris Ave. Rehabilitation	CPF					X					
5. Kuhn Rd. Rehabilitation	CPF							X			
6. Morton Rd. Rehabilitation	CPF							X			
7. Fair Oaks Rd. Rehabilitation	CPF								X		
8. Old Gary Ave. Rehabilitation	CPF								X		
9. Vale Rd. Rehabilitation	CPF									X	
10. Streetlight Replacement Program	CPF		X			X			X		
<u>Water and Sewer Utilities</u>											
1. WRC Sand filter Replacemenet	W/S		X	X							
2. WRC Disinfection System Replacement	W/S			X							
3. WRC Non-potable Water Strainer Replacement	W/S					X					
4. WRC RAS Station Improvements	W/S							X			
5. Sanitary Sewer Replacement	W/S	X	X	X	X	X	X	X	X	X	X
6. Gary Avenue Gardens Watermain Improvement	W/S						X	X			
7. Tall Oaks Lift Station Replacement	W/S		X								
8. Fire Hydrant Replacement	W/S	X	X	X	X	X	X	X	X	X	X
9. Water Main Valve Replacement	W/S	X	X	X	X	X	X	X	X	X	X
10. Water Main Replacement	W/S	X	X	X	X	X	X	X	X	X	X
<u>Facilities</u>											
1. New Police Station	CPF										
- Land		X									
- Construction			X								
2. Community Park Improvement*	CPF	X									
3. PWC Fuel Storage Tank Replacement	CPF			X							
4. PWC Water/Sewer Garage Roof Replacement	CPF	X									
5. PWC Administration Bldg. Roof Replacement	CPF		X								
6. PWC South Garage Roof Replacement	CPF			X							
<u>Stormwater Utility</u>											
None											

* Partially funded through outside source(s)

Listing of Changes from Prior Year's CIP

The following changes were made:

Roadways

1. Pavement Preventative Maintenance Program

This Program is a combination of the existing pavement preventative and restorative sealer projects and the pavement patching projects. Last year the Pavement Patching Project was budgeted as an MFT funded project in FY13/14. However, it will be funded as a CPF project this year to eliminate the additional costs resulting from following required IDOT procedures and to provide funding for the Flexible Pavement Project. The annual cost for the Pavement Patching Project was increased to \$60,000 from \$50,000 to be more reflective of the cost of last year's project.

2. Indianwood Drive Pavement Reconstruction

The project has been rescheduled due to delays in the County's Armstrong Park Flood Control Reservoir and Siphon Projects. The total removal and replacement of the asphalt pavement will be required as DuPage County will be constructing a 60" diameter siphon relief sewer along the centerline of Indianwood Drive to drain their new 115 acre-foot flood control facility being built in Armstrong Park. Per the intergovernmental agreement with DuPage County and the Carol Stream Park District the Village is responsible for the restoration of the asphalt pavement.

3. Lies Road Pavement Rehabilitation

The Village re-applied for LAPP funding last year, but did not obtain the guaranteed funding. It's anticipated an additional \$8.3M in STP funding will be available for the DM&MC. With this Project being the next ranked project it's possible the Village will obtain LAFO funding. The project has been scheduled for design in FY14/15 followed by construction in FY15/16 pending LAFO funding.

Roadways (continued)

4. Illini Drive Bridge Replacement

Previously the Village anticipated only replacing the deteriorated bridge deck and roadway. Recent inspections revealed the abutments may also need to be replaced. Therefore the cost estimate was increased for a total bridge replacement.

5. Kuhn Road Trail

The Village received a \$100,000 from a DCEO Legislative Grant. The budgeted costs reflect this additional funding.

6. West Branch DuPage River Trail

Delays in obtaining approval of an amended consultant agreement approval from IDOT have caused the schedule to be revised. The consultant agreement had to be revised for the design of a boardwalk to traverse the floodway and buffer areas. Costs have been adjusted for inflation.

7. Gary Avenue Improvements

Previously the Village was going to be the lead agency on the joint Gary Avenue Multi-Use Path Project with DuPage County for the Phase I Design Study and the Phase II Final Engineering. DuPage County elected and the Village agreed to have the County be the lead agency after it was decided they should incorporate an extension of the project north into Bloomindale across the Chicago Central & Pacific railroad tracks to Army Trail Road. From there the path would turn west and connect into Bloomingdale's existing on-street path system. The Multi-Use Path Project is currently under designed and scheduled for construction in FY16/17. At the same time the County is designing their Gary Avenue Improvement Project for construction in FY14/15. Many of the Multi-Use Path Project elements (right of way and easement acquisitions, grading, wetland and buffer mitigation, retaining walls, traffic signal modifications, utility relocations, etc.) will be completed with the roadway project. Therefore, the project was renamed the Gary Avenue Improvements Project with the funding and schedule adjusted to reflect the County's two projects. The Village will contribute \$17,000 in developer contributions in FY16/17 towards DuPage County's Gary Avenue Multi-Use Path Project. A \$100,000 contribution towards the County's Gary Avenue Improvement Project will be made in FY14/15.

Roadways (continued)

8. Streetlight Replacement

The Streetlight Replacement Program was expanded to add projects for FY18/19, FY21/22, FY24/25, FY27/28 & FY30/31 continuing with the replacement of deteriorated streetlight poles with standard aluminum poles including screw-in bases and energy efficient LED light fixtures along with the replacement of conduit, cabling and controllers.

9. GIS Utility System Update & Implementation

This project is being delayed two years due to other higher priority projects and tasks taking precedence.

Water and Sewer Utilities

1. WRC Phase II Aeration System Improvement

Through analysis of project concept and comparison to technology that has been recently developed and field tested, staff and the consulting engineer were able to lower the cost estimate from \$850,000 to \$825,000.

2. WRC Blower Motor Drive Replacement

Originally planned for FY16/17, this project has been deferred one year from original estimated schedule due to continued sound operation of the equipment and to allow for completion of other previously scheduled (and unscheduled) projects.

3. WRC WAS Pump Replacement

Originally planned for FY16/17, this project has also been deferred one year from original estimated schedule due to continued sound operation of the equipment and to allow for completion of other previously scheduled (and unscheduled) projects.

4. GIS Utility System Update & Implementation

This project is being delayed two years due to other higher priority projects and tasks taking precedence.

Water and Sewer Utilities (Continued)

5. Water System Studies

This project is being delayed two years due to other higher priority projects and tasks taking precedence.

6. Schmale Road Water Main Replacement

This project previously identified a Design Study in FY13/14 to determine the method of replacement. The schedule now calls for the preparation of a Concept Plan based on an in-place replacement methodology. This will also allow for the acquisition of easements to start in FY13/14. Due to ongoing breaks and more frequent maintenance repairs, this change was made to keep the project on schedule for Phase II Final Engineering in FY14/15 and Phase III construction in FY15/16.

7. Sanitary Sewer System Evaluation Study (SSES)

In last year's CIP this Study was only programmed through FY16/17. However, due to the results of the flow monitoring revealing more areas of concern, the Study is being continued through FY17/18. This Project will no longer be listed as a Capital Improvement Project, but instead will be incorporated into the Operating Budget paid through the Water & Sewer Fund.

8. Aztec Drive Sanitary Sewer Replacement

This project is being delayed two years due other higher priority projects and tasks taking precedence. The Overhead Sewer Program will be reinstated to provide more effective temporary protection from sanitary sewer overflows. In addition, the Village will concentrate on the Sanitary SSES to identify inflow and infiltration (I&I) sources which will generate projects aimed at reducing I&I through sanitary sewer replacements, repairs and illegal disconnections.

9. Sanitary Sewer I&I Reduction Program

This project is being delayed two years due to other higher priority projects and tasks taking precedence.

10. Streetlight Replacement

This is a new project for FY13/14 which is proposed due to the unexpected availability of LED lights that will be used to replace deteriorating lights at the WRC

Water and Sewer Utilities (Continued)

11. Southwest Sanitary Lift Station & Force Main

This project was delayed one year. Design is now scheduled for FY18/19 with construction in FY19/20.

12. Southwest Sanitary Sewer Extension

This project was delayed one year. Design is now scheduled for FY19/20 with construction in FY20/21.

Stormwater Utilities

1. Klein Creek Flood Plain Phase II Buyout

The project is substantially complete with the house being demolished and the lot rough graded. Final restoration will continue into FY13/14.

2. Southeast Stormwater Study

Staffing shortages will not allow this project to be completed in FY12/13 and thus it has been delayed to FY13/14.

3. Tubeway & Westgate Stormwater Study

Current resource restraints will not allow this project to be completed in FY13/14 and therefore has been delayed to FY14/15.

Facilities

1. PWC North Garage Roof Replacement

This is a new project made necessary by the unanticipated decline in the condition of the existing roof.

Facilities (Continued)

2. Fullerton Storage Building

This project was added because the Village Hall is lacking in ample space for the storage of materials, equipment and records. The facility will allow secure storage of these items in a climate controlled structure.

Requested But Not Programmed Project Listing

Roadways

1. Morton Road Phase I Reconstruction

Morton Road from the Village's southern limits to St. Charles Road is an unimproved old chip and seal road that has been overlaid and will eventually need to be reconstructed. Some development has occurred along this section. When development plans materialize and the properties and adjoining roadway become annexed into the Village the project would move forward towards construction. Total estimated cost is \$2,040,000.

2. Gary Avenue North Bike Path

This project would extend the Gary Avenue Bike Path from Lies Road north across the RR tracks completing the Village's section. Total estimated cost is \$472,000. DuPage County's Regional Bikeway shows the path continuing north to link Strafford Square Mall with this path before heading east and connecting into the Kuhn Road Trail.

3. Bus Shelters

This project would consist of installing 6 PACE bus shelters that meet PACE funding requirements along various bus routes. PACE will pay for 100% of the shelter including installation whereas the Village is responsible for the concrete pads and other amenities such as lighting, bike racks, benches and waste receptacles. Total estimated Village cost is \$56,000.

4. Morton Road Bike Path

A bike path along Morton Road was identified by the Park District to provide pedestrian and bicycle access from the Lies Road Bike Path to McCaslin Park. This 9,200' long path is currently unfunded but has the potential for future funding through the Carol Stream Park District, Wayne Township Road District, TCM, CMAQ or ITEP. Total estimated cost is \$2,430,000.

5. Kuhn Road North Trail

This 3,800' bike path would be an extension of the Kuhn Road Trail that was constructed in FY12/13 from the Great Western Trail to Lies Road. The path would extend north from Lies Road to Army Trail Road. DuPage County has identified this as a major trail as it is planned to be extended north through Bloomingdale to the North Central DuPage Regional Trail

Roadways (Continued)

that goes from the Illinois Prairie Path north into Cook County and Schaumburg. Funding could possibly come from TCM, CMAQ or ITEP. Total estimated cost is \$777,000.

6. Lies Road East Trail

DuPage County has listed Carol Stream's industrial park as one of ten Priority Travel Zones in their DuPage County Regional Bikeway Plan. This 6,000' long bike path project would extend the existing Lies Road Trail from Gary Avenue to Schmale Road and then north to Mill Pond Drive. Their Plan would eventually extend the Trail through Glendale Heights to the East Branch DuPage River Greenway Trail. Potential funding sources include DuPage County, TCM, CMAQ or ITEP. Total estimated cost is \$1,261,000.

7. Sidewalk Improvements

School District 87 has identified 11 sidewalk locations in their Hazardous Walking Conditions Study where they are recommending improvements or additions. Total estimated cost is \$416,000.

8. Industrial Park Sidewalks

The existing industrial park subdivisions between Gary Avenue and Schmale Road do not have sidewalks. The Village is starting to notice an increase in pedestrian traffic on these streets as workers commute to and from work. Workers also walk to area parks, restaurants and convenience stores. The recent use of streets by pedestrians has created a possible need for sidewalks. Costs will vary significantly depending on which streets need sidewalks, width, easement and right of way acquisitions, utility relocations, placement on both sides, drainage, etc.

Water and Sewer Utilities

1. Water Main Replacement Projects

The Village has aging cast iron and PVC water mains that were built thirty to fifty years ago. These water mains are substandard to our current requirements for polyethylene wrapped ductile iron pipe (DIP). Cast iron pipes (CIP) have been found to be more susceptible to corrosion and breaks where PVC is more prone to splitting. Some are located in rear yards, under pavement or in confined right of ways making access restoration more expensive. They all have varying degrees of break history. Previous Capital Improvement Program Budgets identified almost \$29M in needed improvements. Recognizing some water mains may

Water and Sewer Utilities (Continued)

have a life expectancy beyond fifty years the Village will under take a comprehensive Water System Asset Study to identify, prioritize and schedule possible future replacement projects. Several areas of concern include:

a. Oswego Drive Water Main

Approximately 2,800 feet of water main is located in the rear yards along Oswego Drive, some of which is undersized 6" main. Access and potential private property damage are a maintenance and repair concern. Water main breaks have occurred on this section. A very narrow right of way exists with front yard easements making for relocation difficult. An alternative analysis will need to be conducted. Total estimated cost is \$1,174,000.

b. Kuhn Road Water Main

This water main was also constructed out of CIP and was undersized. Approximately 2,700 feet of 10' water main from Mohican Road to Deerskin Trail will need to be replaced with 12' diameter DIP. Recent breaks have been identified. Total estimated cost is \$808,000.

c. St. Charles Road Water Main

The water main along St. Charles Road from Schmale Road to President Street was built about the same time as the Schmale Road water main making it over forty years old. It too was built out of cast iron and has experienced recent breaks. The 2,800 feet of 12' CIP will need to be replaced with DIP. Total estimated cost is \$838,000.

d. Gundersen Drive Water Main

This water main was also built about the same time as the Schmale Road water main and it too was constructed out of CIP. Approximately 3,100 feet of 10" water main from Schmale Road to President Street will need to be replaced with 12" DIP. Total estimated cost is \$1,021,000.

e. Thornhill Drive Water Main

This water main is very similar to the Gundersen Drive water main being installed about forty years ago out of CIP. Approximately 3,900 feet of 10" water main from Schmale Road to its end at Community Park will need to be replaced with 12" DIP. Additional valving is contemplated on this line. Total estimated cost is \$1,352,000.

f. Western Trails Water Main

The entire Western Trails subdivision, all fifteen phases, was constructed out of PVC water main. This material has been prone to splitting and leaking at the service corporations where they are screwed into the PVC wall. Eventually 30,300 feet of 8" PVC pipe and 13,500 feet of 10" PVC pipe will all be replaced with DIP. Total estimated cost is \$7,871,000.

g. Shining Waters Water Main

The subdivision's water main system was built between 1978 and 1986. PVC was also the pipe material of choice. The system will be monitored for maintenance problems and will be replaced with 46,000 feet of DIP water main when conditions warrant. Its anticipated construction would occur over a multi-year period. Total estimated cost is \$8,973,000.

Water and Sewer Utilities (Continued)

h. Spring Valley Water Main

This subdivision also was built between 1978 and 1986 utilizing PVC for the water main system. It too will be monitored for replacement. The 33,000 feet of water main is contemplated for replacement at the end of its useful life. This project will also take place over several construction seasons. Total estimated cost is \$6,399,000.

i. Kuhn Road Water – Thunderbird Trail to Munson Drive

This 1,700-foot section of water main was constructed in 1977 using PVC and has no hydrants along its length. When main breaks or maintenance issues become excessive it will be replaced with DIP water main. Total estimated cost is \$509,000.

2. Water System Improvements

The Water System Study has yet to be completed identifying projects and estimating costs. Costs can not be determined until projects are identified. However, its anticipated future projects will be identified.

3. Wayne Township Water Main Extensions

Possible well contaminations may lead to future unincorporated water main extensions to provide safe potable water. No costs have been estimated without any need having been identified. Total estimated cost is \$9M.

4. Sanitary Sewer I&I Reductions

The Village will be initiating a large-scale evaluation of its aging sanitary sewer system utilizing flow monitoring, smoke testing and digital televising technology. Flow monitoring will be performed first to identify target areas. Smoke testing and digital televising will then follow in the targeted areas.

It's anticipated some of the old trunk mains were installed between 1973 and 1982 will have deteriorated and will be in need of repair or replacement. Both reinforced concrete pipe (RCP) and asbestos cement sewer pipe (ACSP) was utilized in the construction of the trunk mains and are susceptible to sulphuric acid corrosion. We will also look for inflow and infiltration (I&I) through cracking, joint separation, holes, illegal connections and for the presence of fats, oils or greases, root intrusions and abrasion. Depending on the amount and severity of the damage this project may occur over several years.

The oldest sanitary sewer mains were constructed in the late 1950's and early 1960's out of extra strength vitrified clay pipe (ESVCP) and will be evaluated first along with pipes that are considered more susceptible to deterioration. ESVCP has more joints and are more susceptible to I&I. As with the trunk mains we will be looking for signs of I&I as well as illegal sump pump connections. After evaluations are performed a multi-year rehabilitation program will be developed as needed. One area of concern has been identified:

Water and Sewer Utilities (Continued)

a. North Avenue Sanitary Sewer Rehabilitation

This project involved the rehabilitation of deteriorated sanitary sewers. Total estimated cost was \$43,000.

5. Sanitary Force Main Replacements

A significant amount of our sanitary sewer pump station force mains are over 30 years old and have never been tested for leaks or corrosion. Force mains are the principal source of hydrogen sulfide generation that can oxidize into sulphuric acid. Approximately 2,500 feet of force main lines will be tested and repaired/replaced as warranted. Total estimated cost is \$414,000.

Facilities

1. Community Park Improvements

The last major Park improvements were performed in 1997. An overall assessment of the condition of the Park facilities is necessary to determine any necessary repairs, replacements or additions. Costs can not be estimated until the condition assessment has been performed and projects identified.

Stormwater Utilities

1. Klein Creek Flood Forecast Warning System

This project previously slated for construction in FY11/12 included stream/elevation gages and cameras placed strategically along Klein Creek to work with DuPage County' Advanced Flood Forecast Warning System. Total estimated cost was \$39,000.

2. Carol Stream Venture Flood Control

Further protection enhancements were contemplated with in the original study which included raising the sidewalk along Lies Road to divert flood waters down Dorchester Drive. The overland flow routes along Dorchester Drive and Chatham Drive would also be reestablished. Total estimated cost was \$258,000 and programmed for construction in FY14/15.

Stormwater Utilities (Continued)

3. Southeast Storm Water System Improvements

Study has yet to be completed identifying projects and estimating costs.

4. Tubeway Detention Basin Rehabilitation & Improvements

The study has yet to be completed identifying projects and estimating costs.

5. Fullerton & Kimberly Stormwater Study

A study was proposed for FY13/14 to analyze the existing storm water management system and determine improvements to alleviate detention pond overflows and street funding. Total estimated cost was \$13,000.

6. Fullerton & Kimberly Storm Water System Improvements

The study is not programmed and therefore can not be completed allowing for the identification of projects and estimating costs.

7. Flood Plain Structure Buyout Program

There are several homes in the Village along Klein Creek that are located within the 100-year floodplain and have experienced flood damage. Four remaining houses are on DuPage County's list of structures for buyout. The Village would seek to purchase these homes on a voluntary basis. The houses would be demolished thereby eliminating future damage or the need to construct costly flood control facilities. The land can be restored back to a natural greenway corridor or even used as a park. Any flood plain structure buyouts will require full funding from other agencies such as IEMA, DuPage County or IDNR. Total estimated cost is over \$1.2M.

8. Flood Plain Structure Buyout Lot Enhancement Program

There are a total of 8 lots slated for homes to be demolished on DuPage County's list of buyout structures. Enhancement of these vacant lots could involve the addition of rain gardens or bioretention cells. Total estimated cost is over \$786,000.

9. Flood Plain Structure Flood Proofing Program

DuPage County has identified 27 homes that would need flood proofing for flood damage protection. Total estimated cost is \$2.9M.

Stormwater Utilities (Continued)

10. Stormwater Management Facility (SWMF) Retrofitting Program

USEPA will be enacting a new storm water rule that will require, among other things, municipalities to retrofit existing SWMFs to treat polluted storm water runoff. Total estimated cost is highly variable, but will probably cost on average around \$2M per facility.

11. TMDL Stream Restoration Program

IEPA is currently developing TMDLs for dissolved oxygen, fecal coliform, pH, manganese, silver and chlorides for the West Branch. Adaptive management procedures have been utilized which may necessitate stream restorations. Total estimated cost for just Klein Creek south of Mitchell Lakes and Thunderbird Creek is \$12.5M. These three phases will restore over 24,000 feet of severely eroded stream banks along Klein Creek from Kuhn Road to Mitchell Lakes. Klein Creek serves as a major conduit that transports runoff from a watershed area of 12.7 square miles. This conveyance system has experienced severe erosion that has resulted in damage to public and private property. This series of three projects will correct this damage utilizing bioengineering techniques that will stabilize the stream bank alleviating further damage. A storm water management funding study will be performed to recommend a method to pay for the cost of these projects if financially feasible. Possible funding sources include IEPA Section 319, future NPDES funds and DuPage County Water Quality Improvement Program grants.

12. Pond Shoreline Restoration

All these ponds are utilized by the Village as storm water runoff and flood control facilities. Over the years the 6 miles of shorelines have experienced a large amount of erosion leading to property damage, decreased water quality and silting in the ponds. These projects will also utilize bioengineering techniques to restore and permanently stabilize the shorelines from future ongoing damage. Some of the ponds are located on Park District property. Funding is dependent on financial feasibility and could include IEPA Section 319 or future NPDES funds as well as DuPage County Water Quality Improvement Program grants. Total estimated cost cannot be determined at this time due to the variability of the erosion and level of restoration required. Once these unknowns have been quantified costs can be calculated.

Completed Projects

Roadways

1. 2012 Pavement Preventative Maintenance Program Projects

Seventy four streets received an application of preservative sealer and twelve received a restorative sealer application with the Pavement Rejuvenation Projects. These two projects were completed at a total cost of \$349,030.29. The Pavement Patching Project included approximately forty patches on fifteen streets totaling nearly 22,500 square feet of pavement surface. The Project was completed for \$60,762.64. In all, the Pavement Preventative Maintenance Program Projects were completed for a total cost of \$409,792.93 which was \$207.07 or 0.1% under the \$410,000 budgeted for these three projects.



Application of Rejuvenation Agent



Pavement Patching Performed on Kuhn Road

Roadways (Continued)

2. 2012 Flexible Pavement Project (Street Resurfacing, Structural Overlay & Pavement Reconstruction)

A total of nineteen streets or 23,873 feet received a 2" maintenance overlay and seven streets or 8,040 feet had a 2.75" structural overlay and two streets or 5,720 feet the pavement was reconstructed. Curb and gutter, sidewalk and driveway removal and replacement as well as pipe under drainage, reflective crack control; street and structure patching were included with the project where conditions met Village criteria. Thermoplastic pavement markings were reapplied. The project was completed at a final cost of \$2,397,666.20. This was \$255,333.80 (9.6%) under the \$2,653,000 budgeted. The following are the list of streets that received resurfacing or structural overlays or the pavement was reconstructed:

<u>Street Resurfacings</u>			<u>Structural Overlays</u>	
Arbor Drive	Chadsford Court	Potomac Court	Bluff Street	Pawnee Drive
Barton Place	Georgetown Drive	Seminole Lane	Executive Drive	Phillips Court
Bedford Drive	Horizon Circle	Shawnee Drive	Mercedes Drive	Stark Drive
Berkshire Lane	Legends Drive	Tomahawk Court	Old Gary Avenue	
Blackhawk Drive	Medford Drive	Whisper Pointe		
Boa Trail	Mohawk Drive	Yuma Lane		
Canterbury Drive				
			<u>Pavement Reconstruction</u>	
			Gundersen Drive	President Street



Curb & Gutter Under Reconstruction on Bluff Street



Bluff Street Being Resurfaced

Roadways (Continued)

3. 2012 Streetlight Replacement Project

Forty seven streetlights and deteriorated poles were replaced with aluminum poles with screw-in bases and LED fixtures as well as new cables, conduit and controllers. An additional fifty four streetlights were converted to LEDs. The 2012 Streetlight Replacement Project was completed at a cost of \$ \$356,037.20, which was \$6,037.20 or 1.7% over the \$350,000 budgeted. The Village did receive a \$350,000 DCEO grant that will cover almost all the costs with the remainder to be paid out of the Capital Project Fund.



Newly Installed LED Streetlight on Spring Valley Drive

Water & Sewer Utilities

1. WRC Headworks Improvements Project

The original budget plan was intended to cover repair, replacement and rehabilitation of several components of the headworks process, including: replacement of bridge, aerator, rotary drum screen bearings and rollers, sprockets and chains and grit classifier; repair or replacement of various failing HVAC components; application of new paint and epoxy coatings on building interior; overhead door replacement and miscellaneous structural repairs; and improvement to SCADA and generator capabilities. However, an unanticipated failure of a primary screw-pump resulted in adding the repair of that component to this project. The project is underway and on-track to be completed by April 30, 2013 at an estimated cost of \$847,000.



Rehabilitated WRC Headworks

Water & Sewer Utilities (Continued)

2. Southwest Water Main Extension Project

A 12-inch diameter water main was constructed along Fair Oaks Road from Tall Oaks Drive south to St. Charles Road. It continued east along St. Charles Road and then along North Avenue where it will connect into the existing water main at the west property line of McCaslin Park. Another section at the southeast corner of Lies Road and Fair Oaks Road completed the looping for fire protection, redundancy, flow and pressure improvements. Total length of the water main is approximately 9,000 feet. Valving and fire hydrants were installed with the main. The Project was completed at a cost of \$1,139,744.33 and funded through a \$1.9M DuPage Water Commission rebate. This was \$403,255.67 or 26.1% below the budget of \$1,543,000 for construction. Other project costs included an intergovernmental agency fee of \$143,343 to the Wayne Township Road District for right of way restoration and \$19,480.29 for construction administration services.

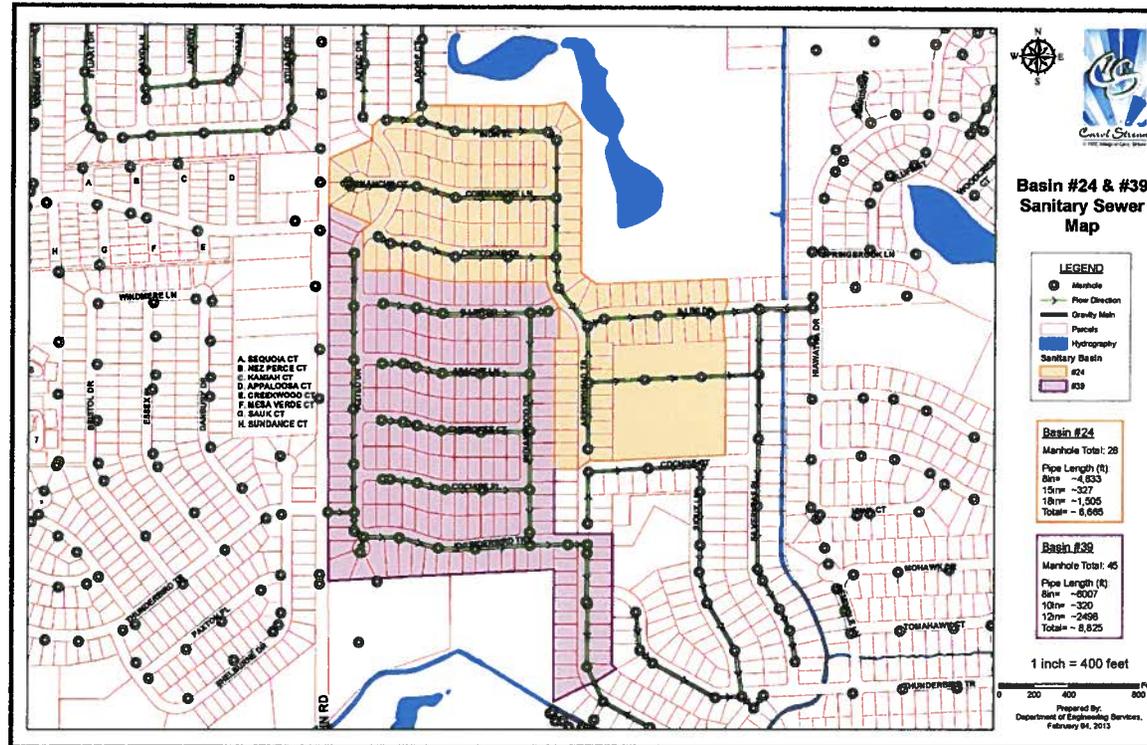


Water Main Installation Along St. Charles Road

Water & Sewer Utilities (Continued)

3. 2012 Sanitary Sewer System Evaluation Study (SSES)

The budget provided for the study of Sanitary Sewer Basins #24 and #39 of the sanitary sewer collection system to determine the scope and sources of storm water inflow and infiltration. The study included manhole inspections, smoke-testing, cleaning and televising, the results of which would aid in the development of plans and specifications for addressing any deficiencies. Basin #39 is complete and recommendations have been received. Basin #24 is nearly complete, with the exception of cleaning and televising. Based on near-completion of analysis and remaining budget funds it may be decide to initiate some repairs in this fiscal year. Project will be complete by April 30, 2013 at a cost of \$100,000 which is also the amount budgeted.



Basin #24 & #39 Sanitary Sewer Map

Appendix A

Common Funding Sources

1. Debt:

- a) General Obligation (GO) Bonds – bonds that are secured by the full faith and credit or unlimited taxing power of the Village.
- b) Revenue Bonds – debt secured by specific revenues generated by or associated with a self-supporting enterprise.
- c) Alternate Revenue Bond – a GO bond that is issued in lieu of a revenue fund. The taxes levied to pay the P&I on the GO bond are abated and the P&I is actually paid from revenues generated by the enterprise fund.
- d) Special Assessment Bonds – are issued to finance public improvements that benefit adjacent or nearby property. The bonds are secured by assessments against the benefiting property and are levied (assessed) by the Village.
- e) Special Service Area Bonds – Special Service Area (SSA) bonds require the issuer to be petitioned by taxpayers in the proposed area to issue bonds payable from ad valorem taxes levied against all taxable property within the boundaries of the SSA without limitation as to rate or amount. Improvements financed by SSA revenues should have to qualify as “special services” in order for the issuer to use this form of financing.

2. Leases:

- a) Capital Lease (tax-exemption) – a non-cancelable contract that meets one or more of the following criteria:
 - The lease transfers ownership (legal title) of the leased property to the lessee.
 - The lease contains a bargain or nominal purchase option.
 - The lease term equals 75% or more of the estimated economic life of the leased property.
 - The present value of the lease payments (excluding executory costs) equals or exceeds 90% of the fair value of the leased property at the inception of the lease.
- b) Certificates of Participation (COP) – a security that represents a share of an issuer’s lease payment. In a COP financing, title to the leased asset is assigned by the lessor to a trustee that holds it for the benefit of the investors, the certificate holders. The certificate represents a share of the lease payment to be received by the investor. The idea behind the COP-

based borrowing is to make the certificates marketable and transferable, generally behaving like conventional debt instruments.

3. **Water and Sewer Utility Users Fees** – these fees will be used to pay the P&I on Revenue Bonds and Alternate Revenue Bonds. The user rates will be adjusted to the required level to support new bond issues.
4. **Stormwater Utility Fee** – a fee charged as an equivalent residential unit (ERU) based on the amount of impervious area that will be used to pay the P&I on Revenue Bonds and Alternate Revenue Bonds for stormwater management facility improvements. As with W&S Utility User Fees these fees will also be adjusted to the required level to support new bond issues.
5. **Roadway Property Tax** – a property tax levied that is specifically dedicated to pay for the maintenance, repair and improvements to the roadway infrastructure. These taxes could be used to secure and pay for General Obligation Bonds.
6. **Motor Fuel Tax Allotments** – The Village receives a portion of the tax that is assessed on fuel by the State. A portion of these proceeds is allocated back to municipalities on a per capita basis. The State determines what the per capita formula is.
7. **Designated Revenue Source** – General Corporate Fund – The Village Board will periodically designate a specific General Corporate revenue source to be used as an ongoing revenue source for the Capital Projects Fund.
8. **State or Federal Assistance including the Illinois Revolving Loan Programs** – The Revolving Loan Program is a program whereas the State would make available a long-term, low-interest loan to the Village. These loans are generally granted for projects that effect the environment. Periodically, grants will be received from the Federal and/or State governments.
9. **Environmental Protection Agency (EPA) Section 319 Grants** – The EPA has allocated matching grants to states for non-point source pollution control programs as well as mitigation projects. They are federally funded at 60% with a 40% local match. The program or project must be designed in accordance with Section 319 of the Clean Water Act. Stream bank restoration projects are typically funded.
10. **Illinois Emergency Management Agency (IEMA) Hazardous Mitigation Grant Program (HMGP)** – This is a federally funded grant program designed to assist state and local government projects that eliminate or cause a reduction in the effects from natural hazards. Projects are 75% federal and 25% local contribution.

- 11. DuPage County Community Development Block Grant (CDBG) Program** – CDBGs are annual direct grants that communities can use to revitalize neighborhoods, expand affordable housing and economic activities as well as to improve facilities and services. These grants are structured to assist low to moderate-income persons.
- 12. IDNR Open Space Land Acquisition Development (OSLAD) Program and Land and Water Conservation Fund (LCWF)** – These grants are managed through IDNR and provide funds for land acquisition and the development of open space. They are typically used by Park Districts and other governmental agencies to purchase land for parks, preserves, conservation corridors and other open space areas. They can also be used for development of these areas such as stream bank stabilization and wetland or riparian creation. Maximum funding assistance is 50% up to \$750,000 for acquisition projects and up to \$400,000 for development/renovation projects.
- 13. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Congestion Mitigation and Air Quality (CMAQ) Improvement Program** – This is a federally funded program that provides financial assistance to local agencies through the Chicago Area Transportation Study (CATS) a Metropolitan Planning Organization (MPO). This program directs Federal Highway Administration (FHWA) funds towards projects in Clean Air Act non-attainment areas that help reduce carbon monoxide and the destruction of the ozone layer. Typical eligible projects include bicycle and pedestrian facilities, traffic flow improvements, commuter parking lots and transit improvements. The funding ratio is 80% federal and 20% local.
- 14. Moving Ahead for Progress in the 21st Century Act (MAP-21) CMAQ** – This is the replacement program for SAFETEA-LU CMAQ.
- 15. SAFETEA-LU Surface Transportation Program (STP) – Highway Projects** – The TEA 21 STP provides FHWA funds to assist local agencies with the improvement of any road that is not classified as local or rural minor collector. Typical projects include widening or adding lanes, reconstruction, intersection improvement and traffic signals. These funds can also be used for transit capital projects and bridge projects. The program is administered through the DuPage Mayors & Managers Conference (DM&MC). Local agency participation is set at 30% with 70% funded through the Illinois Department of Transportation (IDOT) from the FHWA.⁷
- 16. SAFETEA-LU STP – Transportation Control Measure (TCM) Projects** – The TCM projects are funded through the TEA 21 STP. However, eligible projects are limited to the same type as CMAQ projects. The local match is 25% with the remaining 75% being funded through IDOT from the FHWA.

- 17. MAP-21 Transportation Mobility Program (TMP)** – This is the replacement program for SAFETEA-LU STP including both the Highway Projects and TCM Projects. The Highway Bridge Program, formerly the Highway Bridge Replacement and Rehabilitation Program (HBRRP), has also been incorporated into MAP-21 TMP.
- 18. IDOT Local Agency Pavement Preservation (LAPP) Program** – This federally funded program assists local governments with the repair and resurfacing of existing Federal Aid Urban System (FAUS) routes. Projects are funded at 75% coming from FHWA through IDOT with a local match of 25%.
- 19. IDOT Local Agency Functional Overlay (LAFO) Program** – This is the replacement program for LAPP.
- 20. SAFETEA-LU Illinois Transportation Enhancement Program (ITEP)** – ITEP provides funding for community based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. Project sponsors may receive up to 80 percent reimbursement for project costs. The remaining 20 percent is the responsibility of the project sponsor. A project must qualify as one of the 12 eligible categories listed in the ITEP Guidelines Manual and it must relate to surface transportation to be eligible for funding. Typically bike paths and trails are eligible for ITEP funding.
- 21. MAP-21 Transportation Alternatives Program (TAP)** – This is the replacement program for SAFETEA-LU ITEP.
- 22. Highway Bridge Program (HBP)** – The HBP is a federally funded FHWA program that provides financial assistance to local agencies for the replacement or rehabilitation of existing deficient bridges. Projects are funded at 80% federal and 20% local.
- 23. American Recovery & Reinvestment Act (ARRA)** – The ARRA is a comprehensive economic stimulus package that provides, among other things, spending for infrastructure and energy. Transportation projects were allocated spending via metropolitan planning organizations (MPOs), in our case the DuPage Mayors & Managers Conference. Water, sewer and storm water projects were implemented through IEPA whereas energy related projects are administered through the Illinois Department of Commerce and Economic Opportunity (DCEO). Funding is generally at 100% and is based on project readiness or “shovel ready” projects.
- 24. Housing and Urban Development (HUD) Community Development Block Grant (CDBG) Program** – This program is for special one-time funding, unlike the annual DuPage County CDBG funds. In this particular case it is for disaster relief and mitigation from the 2008 floods. Projects for hazard mitigation and to repair damaged infrastructure are considered eligible.

- 25. Illinois Green Infrastructure Grant (IGIG) Program** – Grants are available to local units of government and other organizations to implement green infrastructure best management practices to control storm water runoff for water quality protection in Illinois. Projects must be located within a Municipal Separate Storm Sewer System (MS4) or Combined Sewer Overflow (CSO) area. Funds are limited to the implementation of projects to install best management practices (BMPs). There are three program categories under IGIG: Combined Sewer Overflow (CSO) Rehabilitation Category, Stormwater Retention and Infiltration Category and the Green Infrastructure Small Projects Category.
- 26. Illinois Green Project Reserve (GPR) Program of the State Revolving Loan Fund** – The IEPA has set aside 20% of the Federal portion of the State Clean Water and Drinking Water Revolving Fund capitalization grants, not the entire fund, for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities. These four categories of projects are the components of the GPR. The GPR provides low interest loans which are about half the rate that is normally available to communities for these types of projects.
- 27. CDBG Disaster Recovery “IKE” Property Buyout Program** – This program is for special one-time funding to aid communities in the purchase and demolition of flood prone properties resulting from hurricane Ike and storm systems produced by Ike.

Project Criteria and Selection Policy

The Village of Carol Stream utilizes different criteria when selecting projects within each category: Roadways, Water & Sewer Utilities, Facilities and Stormwater Utilities. Only criteria that are applicable to a given category are used. All projects are evaluated to determine if they meet the qualifications defined on the Definition page for inclusion into the CIP. The following specifies the criteria and selection process that is utilized to identify and prioritize projects within each category.

Roadways

The Engineering Services Department uses several criteria with reference to roadway project selection. They include roadway age, preferred maintenance and rehabilitation schedule, pavement condition, geographic condition, cost/benefit analysis, utility condition, scheduling, drainage, unfunded mandates and safety.

The first step is to develop a global plan where each street is assessed and evaluated to identify a maintenance or rehabilitation strategy that is best suited for that street's distresses. Engineering has developed a Preferred Pavement Maintenance & Rehabilitation Schedule to be used as a general guideline when identifying which maintenance or rehabilitation strategy to employ and when. See Appendix B. This Schedule relates a pavement's age to a preferred strategy of maintenance or rehabilitation.

Another tool used by Engineering Services is a software program called MicroPaver. Streets are routinely inspected and assessed for distresses. The inventoried data is then entered into the program, which calculates a pavement condition index (PCI). The program further calculates a future predicted PCI based on the previous history of pavement aging. The results of the PCI Report are then displayed on a geographic information system (GIS) map where Engineering can view the condition of all pavements within the Village.

The PCI is also used as a guideline to identify what type of maintenance or rehabilitation strategy should be performed on an individual pavement section. Generally pavements with a PCI between 60 and 100 will qualify for a maintenance operation, i.e. fiberized crackfill or rejuvenation. Those with a PCI from 30 to 60 can be considered for resurfacing or a structural overlay whereas those with a PCI below 30 will probably require pavement or total reconstruction.

Engineering also relies on MicroPaver's History Report and other Village databases that relate pavement age to its past history or maintenance or rehabilitation work that was performed on each section. Previous maintenance history enables us to select strategies that perform best on a certain distress and also aids in scheduling when a strategy is applied.

Roadways (continued)

The pavement age, Preferred Pavement Maintenance & Rehabilitation Schedule, PCI Report, GIS PCI map, History Report and other databases are all used to develop a global level plan. Engineering then takes the streets with their global level identified maintenance or rehabilitation strategy and begins the process of developing individual projects. This is called the project level plan. Engineering utilizes several criteria when developing the project level plan. They include those identified in the global level plan as well as; geographic location, utility condition, other project plans, environmental and drainage issues, scheduling and patching versus total replacement.

By looking at the PCI map and the Schedule Engineering can begin to group individual pavement sections into an annual project based on geographic location. Grouping streets into a geographic area lowers the project cost by reducing mobilization costs and increasing contractor efficiency.

Each annual project is analyzed to determine if the condition of utilities within the project area could affect the project. Adjustments are then made to reduce duplication of work and minimize costs. This is also done for coordination of other project plans that could impact the roadway project.

The project is also evaluated for the presence of environmental factors and drainage issues. Environmental factors could include presence of wetlands, riparians or flood plains within the project area as well as pavement oxidation, stripping or raveling. If the roadway or adjoining properties are experiencing drainage issues then Engineering will consider the addition of a drainage component to the project. Only those meeting the Element Qualification Criteria for Project Inclusion as adopted by the Village Board in 2005 will be considered. See criteria in Appendix B.

Scheduling of projects will be reviewed to help minimize costs and to aid in prolonging pavement life. For instance, if a pavement section has already deteriorated beyond resurfacing Engineering may delay pavement reconstruction to obtain the maximum life of the pavement without jeopardizing safety or unduly increasing maintenance costs. The previous year's list of street projects identified for years 2 and three now become the present year's 1 and 2 list of street projects. They, however, are reevaluated to determine their existing condition and predicted rate of deterioration. The schedule may be adjusted based on this reevaluation of pavement conditions.

Engineering also evaluates the extent of patching required on a pavement section. Generally when 30% or more of the pavement area must be patched it is usually cheaper to replace the entire pavement rather than performing patching.

Roadways (continued)

Some projects can be dictated by unfunded mandates. New IEPA regulations can and will continue to require the Village to upgrade our wastewater treatment plant.

Safety is a prime consideration when selecting projects. The Village follows IDOT, FHWA and AASHTO design standards to ensure all roads are properly engineered, constructed and signed. Safety deficiencies in old existing roadways will receive high consideration when selecting projects for inclusion into the CIP.

Infrastructure additions such as new roadways or landscaping enhancements are generally a result of Village Board action. Other additions such as the Lies Road Multi-Use Path were proposed by staff to efficiently and safely move pedestrians and bicyclists to the Town Center and to the West Branch Trail and Prairie Path systems. These projects are usually accompanied by outside funding sources and are always approved by the Village Board.

As new technologies and processes emerge Engineering will evaluate them and incorporate their use when justified. Engineering is currently evaluating perpetual and porous pavement designs.

Water & Sewer Utilities

The Village utilizes slightly different methods to select projects for water system improvements versus sanitary sewer projects. However generally the criteria used for both utilities include: material type, age, repair or maintenance history and condition assessment, regulations, system deficiencies, safety or security issues, scheduling and infrastructure additions.

Some types of material are more prone to a certain type of failure. Reinforced concrete pipe when exposed to sulfuric acid can experience deterioration, vitrified clay pipe has more joints and thus can be more susceptible to root intrusion. Polyvinyl chloride pipe has shown to split at corporations whereas cast iron pipe will tend to pit without cathodic protection. Some fire hydrant and valve bolts will corrode. If system elements constructed with a certain material type tend to deteriorate then they will be considered for inclusion into the CIP.

Age of a section or area of the system can be an indication the Village needs to repair, rehabilitate or replace it. However, this factor should not be considered the only justification for placing a project in the CIP. It can be a major factor when selecting sections for inspection or evaluation in assessing the system's condition.

Water & Sewer Utilities (continued)

Probably the most contributing factors for project selection would include the repair or maintenance history and the condition of the particular section. The historical number of water main breaks, sanitary sewer backups or over flows, pump breakdowns or other repairs provide a good indication that more permanent repairs or rehabilitations are needed. Public Works continues to monitor the repair and maintenance history of both systems. When a section begins to experience problems they are then considered for addition to the CIP. The severity and frequency of the problems will be used to help prioritize competing projects.

Regulations imposed by IEPA can require improvements or rehabilitations to the system. This is especially true for the Water Reclamation Center (WRC). Typically these regulations are in the form of unfunded mandates. The Village will assess the requirements, determine what improvements are necessary and schedule them so as to minimize the cost to the Village.

System deficiencies such as low water pressure or flow, inadequate looping redundancy, poor fire protection coverage, undersized sanitary sewers and pumps, or limited accessibility of service can contribute to CIP qualifications. As deficiencies are identified in the system they may be utilized to justify projects.

If a part of the water or sanitary sewer system is unsafe or could lead to an unsafe condition or poses a security risk they will receive the highest priority. These conditions when known, will be addressed promptly. Using GIS technologies the Village will also begin assessing the condition of our aging water and sanitary sewer infrastructure to determine not only these safety and security issues but also to identify existing distresses that require repair, rehabilitation or reconstruction. The Village will be undertaking a multi-year sanitary sewer system evaluation study (SSES) to determine sources of inflow and infiltration (I&I) and identify repair projects. Removal of I&I will reduce treatment plant costs, lessen sanitary sewer overflows (SSOs) and damage caused by basement back ups. These water and sanitary sewer system condition assessments will be a valuable tool used to justify and prioritize projects.

Scheduling of projects can be a determining factor when and if a project is programmed. Just as we schedule roadway projects to minimize costs and service disruption, we will do the same for our underground utilities. For instance if we are planning on widening a roadway and it results in our water main being under a substantial amount of pavement, we would probably recommend relocating the water main out from under the pavement to avoid costly restorations when repairing water main breaks.

Additions to our underground utility infrastructure can be justified by system deficiencies and also the need or desire to service presently unserved areas. There may be economic justifications to attract, add or retain businesses and sales tax generators as well as the need to protect our facility planning area or enhance our corridors.

Facilities

The Village Manager's office uses several criteria when determining whether or not a facility should be purchased, rehabilitated or reconstructed. This criterion includes a needs assessment, the urgency of the need and the ultimate impact on operational efficiencies.

Initially, a needs and/or space study will be conducted either by staff or through a consultant. The level of urgency will next be measured and finally, the impact on operational efficiencies of purchasing, rehabilitating, reconstructing or doing nothing will be evaluated. The actual selection of a facility will be based on the availability and adaptability of the facility.

Stormwater Utilities

Over the last several years there has been more focus placed on municipalities to address storm water quality issues. A multitude of problems exists within the Village involving illicit discharges, lack of public education and involvement, need for good house keeping measures, pre and post construction best management practices (BMPs). NPDES and TMDL regulations have and will continue to drive storm water quality improvement. In addition the Village must continue to maintain and repair its storm water management system. The Village has developed a Storm Water Management Program that identifies how the Village will select, implement and fund any future projects. Stormwater studies will be performed to analyze alternatives and make final project determinations.

ACRONYMS

ADT	Average Daily Traffic
ARRA	American Recovery and Reinvestment Act
BAN	Bond Anticipation Note
BMP	Best Management Practice
C2000	Conservation 2000
CAFR	Comprehensive Annual Financial Report
CATS	Chicago Area Transportation Study
CDBG	Community Development Block Grant
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
COP	Certificate of Participation
CPF	Capital Projects Fund
DIP	Ductile Iron Pipe
DM&MC	DuPage Mayors & Managers Conference
DPC	DuPage County
DPC-DSWM	DuPage County Department of Stormwater Management
DTC	Depository Trust Company
EIC	Effective Interest Cost
EPA	Environmental Protection Agency
ESVCP	Extra Strength Vitrified Clay Pipe
FAUS	Federal Aid Urban System
FEMA	Federal Emergency Management Agency
FES	Flared End Section
FHWA	Federal Highway Administration
FMAP	Flood Mitigation Assistance Program
FPDDC	Forest Preserve District of DuPage County
FY	Fiscal Year
GASB	Government Accounting Standards Board
GAAP	Generally Accepted Accounting Principles

ACRONYMS

GCF	General Corporate Fund
GO	General Obligation
HBP	Highway Bridge Program
HMGP	Hazard Mitigation Grant Program
HUD	Housing and Urban Development
IDNR	Illinois Department of Natural Resources
IDOT	Illinois Department of Transportation
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IRS	Internal Revenue Service
ITEP	Illinois Transportation Enhancement Program
LAFO	Local Agency Functional Overlay
LAPP	Local Agency Pavement Preservation
LWCF	Land and Water Conservation Fund
LOC	Letter of Credit
MAP-21	Moving Ahead for Progress in the 21st Century Act
MFT	Motor Fuel Tax
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSRB	Municipal Securities Rulemaking Board
NFIP	National Flood Insurance Rate Program
NIC	Net Interest Cost
NPDES	National Pollutant Discharge Elimination System
NRMSIR	National Recognized Municipal Information Depositories
OS	Official Statement
OSLAD	Open Space Land Acquisition Development
P&I	Principal and Interest
PCI	Pavement Condition Index

ACRONYMS

POS	Preliminary Official Statement
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
RFP	Request for Proposal
RMS	Roadway Management System
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SEC	Securities and Exchange Commission
SID	State Information Depositories
SSA	Special Service Area
SSO	Sanitary Sewer Overflow
STP	Surface Transportation Program
TAP	Transportation Alternatives Program
TCM	Transportation Control Measure
TMP	Transportation Mobility Program
TEA 21	Transportation Equity Act for the 21 st Century
TIC	True Interest Cost
TIF	Tax Increment Financing
TMDL	Total Maximum Daily Load
W&S	Water & Sewer
WRC	Water Reclamation Center
WTRD	Wayne Township Road District

Appendix B

**Preferred Pavement Maintenance
&
Rehabilitation Schedule**

<u>Year</u>	<u>Maintenance Operation</u>
1	Preservative Seal
4	Fiberized Crackfill
5	Preservative Seal
8	Fiberized Crackfill
9	Preservative Seal
12	Restorative Seal
15	1st Resurfacing or Structural Overlay
16	Preservative Seal
19	Fiberized Crackfill
20	Preservative Seal
23	Fiberized Crackfill
24	Preservative Seal
27	Restorative Seal
30	2nd Resurfacing or Structural Overlay
31	Preservative Seal
34	Fiberized Crackfill
35	Preservative Seal
38	Fiberized Crackfill
39	Preservative Seal
42	Restorative Seal
45	Pavement Reconstruction

This is a general guideline. Maintenance operations depend on many variables including: traffic, construction techniques, material performance, environmental factors, etc.

Assumptions

1. Pavement Rejuvenation

- A fifth of the Village's total pavement area, or 336,000 square yards, will be done every year for preservative and restorative seals. This results in a street being sealed about every four to five years.
- Use a combined unit price of \$1.12/SY for preservative and restorative seals in 2013 dollars.

2. Fiberized Crackfill

- Approximately 13% of the Village's entire pavement area, or 224,000 square yards, will be crackfilled every year. This equates to a street being crackfilled about every seven to eight years.
- Use a unit cost of \$0.55/SY for fiberized crackfilling in 2013 dollars.

3. Resurfacing & Structural Overlays

- The 1st resurfacing or structural overlay is estimated at 15 years of age with the 2nd occurring at about 30 years of pavement age. This results in approximately 110,000 square yards of resurfacing/structural overlays being performed every year. Therefore, a street is resurfaced on average about every 15 years. Resurfacing, structural overlays and pavement reconstruction projects make up the Village's Flexible Pavement Program.
- Street resurfacing/structural overlay projects for year 1 of the Program will be based on actual selected streets and their appropriate quantities and adjusted unit prices whereas years 4 through 20 will be based on 110,000 square yards per year and the combined unit price adjusted for inflation.
- Use \$20.20/SY as a unit cost in 2013 dollars for street resurfacing and structural overlay projects.

4. **Pavement Reconstruction**

- The useful pavement life is estimated at approximately 45 years when a pavement reconstruction operation will then be performed bringing the pavement back to its original "like new" condition. This yields approximately 37,000 square yards of pavement reconstruction being performed every year. The amount of pavement reconstruction performed each year will be adjusted in accordance with the amount of total reconstruction that is being performed. Resurfacing, structural overlays and pavement reconstruction projects make up the Village's Flexible Pavement Program.
- Year 1 cost estimates will be based on actual selected streets and their appropriate area and adjusted unit prices whereas the following years will be based on 37,000 square yards per year (years 2-20) and the unit prices adjusted for inflation for pavement reconstruction projects.
- Use a unit cost in 2013 dollars of \$29.83/SY for pavement reconstruction projects.

Element Qualification Criteria for Project Inclusion

The following criteria are to be used for qualifying each infrastructure element for possible inclusion into a project. Only those that meet the criteria, are not correctable by alternative means rather than reconstruction or rehabilitation, may be considered for inclusion.

Drainage Projects

1. Ponding of water or icing four feet or more into the pavement as measured from the pavement edge for a minimum length of five feet twenty-four hours after a significant rainfall event or snow melt.
2. Ponding of water or icing at a sidewalk crosswalk, bus stop, gang mailboxes or other pedestrian paths with a minimum depth of one-half inch or a distance of 5' or greater twenty-four hours after a significant rainfall event or snow melt.
3. Significant water draining across a sidewalk, drive or street, which continues beyond forty-eight hours after a significant rainfall.
4. Overland flow routes that do not function properly.

Sidewalk Projects

1. Joint differential of one inch or more.
2. Those adjacent to curbs requiring depressions.
3. For individual Public works projects any sidewalk spalled (pitted with aggregate showing) cracked or otherwise damaged sidewalk over 50% of the panel. Those adjacent to a street maintenance project will only require 25% of the panel.
4. Generally, any sidewalk humped, dipped or deflected with a change in grade greater than $\pm 10\%$ unless specifically designed for a purpose, i.e. overland flow route drainage.
5. Those sidewalks meeting the drainage requirements as identified above.

Curb and Gutter Projects

1. Those requiring depressions.
2. For individual Public Works project any curb and gutter spalled (pitted with aggregate showing), cracked or otherwise damaged over 50% of the section. Those adjacent to a street maintenance project will only require 25% of the section.
3. Generally, any curb and gutter humped, dipped or deflected with a change in grade greater than $\pm 10\%$ unless specifically designed for a purpose, i.e. drainage.
4. Curb and gutter sections being rehabilitated that are adjacent to aprons may also require apron removal and replacements. In those instances where apron removal is necessary, the apron shall be removed and replaced to the next closest joint or sawn edge for concrete aprons and an eighteen-inch minimum width required for reconstruction of bituminous aprons. Only broom finished concrete and bituminous aprons or ribbons will be replaced by the Village. All aprons or ribbons constructed with other materials including but not limited to stamped concrete, colored concrete, stamped asphalt, colored asphalt, brick pavers, exposed aggregate or California style finishes.