Village of River Forest
Five Year Capital Improvement Program

The Five Year Capital Improvement Program (CIP) is a planning tool for the Village that seeks to identify major capital projects and a corresponding funding source for projects that are $10,000 or more.

The Five Year Capital Improvement Plan is prepared by staff and reviewed by the Village Board as the initial step toward preparing the annual budget. The Plan is generally amended during the budget process as determinations are made for items to be moved forward or to be deferred based on current information.

The CIP is divided into the following sections:

Public Facilities **2 Facilities**

Village facilities include Village Hall which houses Administration, Finance, Building, Police, and Fire operations as well as the Public Works Village Yard which is located in a separate facility. Improvements at the Water Pumping Station are identified under the Sewer & Water CIP section.

Equipment

The Equipment section lists those capital equipment items that need to be repaired, replaced or acquired new over the next five years. This section addresses equipment for the Administration, Fire, Police and Public Works operations.

Streets **31.6 miles**

The Streets program includes annual street resurfacing, alley maintenance, sidewalk and curb maintenance as well as general street patching and maintenance. The annual Street Improvement Program, formerly funded through bond proceeds, is now funded through Motor Fuel Tax (MFT) operating revenues.

Vehicles **39 vehicles in the fleet**

The vehicle section includes an inventory of all of the Village vehicles which is subdivided by public works, police and fire vehicles. The detail page of each vehicle to be replaced in 2014 provides a picture of the vehicle, historical cost and repair information, a description of how the vehicle is used, and its life expectancy.

Sewer & Water Improvements **73.32 miles of sewer and water mains**

The Village annually budgets for the maintenance and repair of the sewer system, including sewer lining and rehab and sewer main repairs.

The Village's water system serves a population of more than 11,000. Maintenance of the pumping station and distribution system is essential to the water utility's operation. Annual funding is recommended for water main replacement and rehabilitation. Water main replacement is indicated when a history of line failure or a lack of adequate fire

flow exists. When possible, water main replacement is scheduled to coincide with street improvements to limit the impact of construction activity to a particular area.

Facility and equipment improvements at the Water Pumping Station can be found in this section.

Information Technology **38 computers and 7 servers**

The Village completed a comprehensive study of its Information Technology System in FY 2012. Recommendations fom the study are incorporated into the five-year CIP including replacement computers, laptops, servers (physical and virtual), disk space expansion, disaster recovery improvements, and network enhancements.

Five Year Capital Improvement Summary

The following summarizes the 2014 – 2018 CIP totals by category:

Category	2014	2015	2016	2017	2018	Five-Year Total
Public Facilities	290,750	80,890	83,100	28,420	-	483,160
Equipment	167,400	167,795	210,800	100,050	-	646,045
Streets	1,249,975	798,900	828,600	604,100	617,600	4,099,175
Vehicles	762,160	571,090	306,018	735,843	453,845	2,828,956
Sewer & Water	511,000	556,000	332,500	565,000	580,000	2,544,500
Information Technology	31,860	60,000	30,500	29,000	70,000	221,360
TOTAL	**3,013,145**	**2,234,675**	**1,791,518**	**2,062,413**	**1,721,445**	**10,823,196**

Village of River Forest
Financing the Five Year Capital Improvement Program

The Five Year Capital Improvement Program (CIP) is financed through the following Village funds or particular revenue sources. The proposed 2014 funding levels for each fund or source can be found below.

General Operating Fund **$607,426**

The General Fund is the major fund in the Village's budget and provides for all activities not accounted for in other funds.

Capital Equipment Replacement Fund (CERF) **$1,220,310**

The Capital Equipment Replacement Fund (CERF) is a capital projects fund where Administration, Police, Fire and Public Works Departments set aside funds each year for the eventual replacement of existing equipment, and to avoid significant fluctuations in the operating budget from one year to the next.

Motor Fuel Tax (MFT) **$145,800**

The State of Illinois has imposed a gas tax on the privilege of operating motor vehicles on public highways in Illinois. MFT dollars are collected by the State of Illinois and remitted to the municipality.

Sewer & Water Operating Fund **$555,440**

The Sewer and Water Operating Fund includes the following revenue sources which assist in funding capital improvements: residential sewer & water charges and interest income.

Sewer & Water CERF Fund **$0**

The Sewer & Water CERF Fund is part of the above mentioned CERF, only this portion is funded from Sewer & Water revenues and provides for the eventual replacement of Public Works vehicles utilized for sewer and water functions.

Grant Proceeds **$484,169**

The Village encourages all departments to seek and apply for grant funding that are in the best interests of the Village for capital projects, equipment and program needs.

The Village has applied for two grants in 2014: Green alley improvements on the northeast portion of the Village and an ITEP grant for Madison Avenue streetscape improvements.

Five Year Capital Improvement Funding Summary

The following summarizes the 2014 - 2018 CIP funding totals by category:

Category	2014	2015	2016	2017	2018	Five-Year Total
General Fund	607,426	344,500	331,500	286,500	340,000	1,909,926
General Fund CERF	1,220,310	697,775	493,918	791,313	435,345	3,638,661
Motor Fuel Tax	145,800	437,400	448,200	270,000	270,000	1,571,400
Sewer & Water Operations	555,400	690,000	472,900	641,600	657,600	3,017,540
Sewer & Water CERF	-	65,000	45,000	73,000	18,500	201,500
General Grant	484,169	-	-	-	-	484,169
TOTAL	**3,013,145**	**2,234,675**	**1,791,518**	**2,062,413**	**1,721,445**	**10,823,196**

Village of River Forest
Five Year Capital Improvements Program

IMPROVEMENT CATEGORY	2014	2015	2016	2017	2018	Five Year Total
Public Facilities	290,750	80,890	83,100	28,420	-	483,160
Equipment	167,400	167,795	210,800	100,050	-	646,045
Streets, Curbs, Sidewalks & Alleys	1,249,975	798,900	828,600	604,100	617,600	4,099,175
Vehicles	762,160	571,090	306,018	735,843	453,845	2,828,956
Sewer & Water Improvements	511,000	556,000	332,500	565,000	580,000	2,544,500
Information Technology	31,860	60,000	30,500	29,000	70,000	221,360
Totals - All Categories	**3,013,145**	**2,234,675**	**1,791,518**	**2,062,413**	**1,721,445**	**10,823,196**

PROPOSED FINANCING	2014	2015	2016	2017	2018	Five Year Total
General Fund - Operations	607,426	344,500	331,500	286,500	340,000	1,909,926
General Fund- CERF	1,220,310	697,775	493,918	791,313	435,345	3,638,661
Motor Fuel Tax Fund	145,800	437,400	448,200	270,000	270,000	1,571,400
Sewer/Water Fund - Operations	555,440	690,000	472,900	641,600	657,600	3,017,540
Sewer/Water Fund - CERF	-	65,000	45,000	73,000	18,500	201,500
General Fund - Grant Financing	484,169	-	-	-	-	484,169
Grand Totals-Proposed Financing	**3,013,145**	**2,234,675**	**1,791,518**	**2,062,413**	**1,721,445**	**10,823,196**

Public Facilities – Five Year Capital Improvement Program

The Public Facilities section of the Capital Improvement Program (CIP) identifies proposed improvements to the Village Hall, including the Police and Fire Department areas, as well as the Public Works Garage. Proposed improvements may include repair, replacement or the rehabilitation of Village facilities.

Building improvements at the Water Pumping Station are included in the Water/Sewer section of the CIP.

As with other sections of the CIP, these improvements are targeted for specific years and are financed through various methods such as the General Fund and Capital Equipment Replacement Fund (CERF).

Public Facilities improvements planned for 2014 include:

Equipment	Cost of Equipment	Funding Source	This Project is:
Firing Range Rehab	$50,750	CERF	Recommended
PW Garage Improvements	$240,000	CERF	Critical
Total	**$290,750**		

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law.

Critical projects are highlighted in yellow.

Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.

Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Public Facilities Summary

Facility Improvements	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Police Department									
Firing Range Rehab	1	Recommended	50,750	23,890	22,100	28,420	-	125,160	CERF
Public Works									
Garage Improvements	3	Critical	240,000	57,000	61,000	-	-	358,000	CERF/General
Total			**290,750**	**80,890**	**83,100**	**28,420**	**-**	**483,160**	

Proposed Financing

			2013	2014	2015	2016	2017	Five-Year Total
General Fund			-	57,000	61,000		-	118,000
CERF			290,750	23,890	22,100	28,420	-	365,160
Total			**290,750**	**80,890**	**83,100**	**28,420**	**-**	**483,160**

Police

Firing Range Rehab	2014	$ 50,750	CERF
Facility	2015	$ 23,890	CERF
	2016	$ 22,100	CERF
	2017	$ 28,420	CERF

- Critical
[X] Recommended
- Contingent on Funding

Original Purchase Date & Cost
1998- Cost Unknown

Funding History
N/A

Project Description & Justification
The Firing Range located in the basement of Village Hall was installed in 1998 as part of the Village Hall construction project. Since that time the range has experienced water leaks from foundation cracks causing periodic equipment malfunctions and decreasing the 10 – 12 year life expectancy of the equipment. With replacement parts no longer produced or available on the secondary market, maintenance and upgrades to components has been challenging. By 2014, the range will be 16 years old. The range is used for pistol, shotgun and rifle training.

The main components of the range are the following:

- Bullet Trap/Ballistic/Protective Wall System
- Ballistic Ceiling Baffle System
- Shooting Stalls/Target Turning Systems-stalls, rails, target retrievers, and master control system
- Range Ventilation System

Repair/Improvement	Estimated Cost	Work Completed
Bullet Trap Conversion	$ 24, 200	FY 14
Combat/Protective Wall System	$ 13,250	FY 14
Ballistic Ceiling Baffles	$ 13, 300	FY 14
Ventilation Direct Digital Control System	$ 15, 954	FY 15
Ventilation VFD for Make-Up Air Unit	$ 2,647	FY 15
Ventilation Custom Radial Diffusers	$ 1,764	FY 15
Ventilation Control Piping and Wiring	$ 2,275	FY 15
Ventilation Start Up and Commissioning	$ 1,250	FY 15
Range Master Control System	$ 4,800	FY 16
Network Interface	$ 1,300	FY 16
Rail Repair and Target Encasements	$ 2,800	FY 16
Lateral Target with base	$ 7,250	FY 16

Target Turners	$ 2,600	FY 16
Electronic Enclosures	$ 3,350	FY 16
Shooting Stalls	$ 9,300	FY 17
Air Filtration Unit	$ 19,120	FY 17

The approximate life expectancy of the equipment, with recommended maintenance, is an additional 18-26 years.

Additional Justifications

FY 14-Improvments address safety and integrity of bullet trap system plus industry standard of ballistic walls for approximately 1/3 of range to protect against ricochet and shrapnel displacement. Items include upgraded ceiling baffles to protect plumbing, duct work, and other structural components.

FY 15-Improvments address minimal ventilation system upgrades needed to ensure compliance with OSHA air quality standards for firing ranges.

FY 16-Improvments address mechanical and technology upgrades required with regard to target rail and control systems.

FY 17-Improvments address potential critical failure of a 20-year old air filtration unit and 20-yearold individual shooting stalls.

Project Alternative

The alternative to the replacement of the range equipment is to attempt continue to repair the current system. This is less desirable and less feasible as the range age increases. The proposed project uses, for consideration, estimates from current vendors. The utilization of alternate vendors would require the complete stripping out of all or most current equipment which could increase costs by approximately 40-50%. A second alternative is to lease time at an offsite firing range- problems associated with this alternative are discussed below.

Project Impact

The State of Illinois requires annual firearms certification. The use of a firearm is one of the highest liabilities a police department can face, the Department currently requires quarterly firearms training and without a useable firing range, the Village would have to seek an alternate location to train. This would increase training, overtime, transportation, facility rental premiums, and ammunition costs. A safety/operational concern would be the inability for officers to test fire duty weapons after general maintenance or armorer's repairs were completed. The Department currently allows the Forest Park PD to conduct some periodic training and test firing on the range in consideration of other training opportunities and ammunition supplies.

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
TBD	TBD

Public Works Garage Improvements	2014	$240,000	CERF
Public Facilities	2015	$57,000	General
	2016	$61,000	General

X Critical
- Recommended
- Contingent on Funding

Project Description & Justification

In an effort to include the current Public Works Garage with the redevelopment of the site directly to the south (former Hines Lumber site), the Village is exploring options for relocating the Public Works facility and its operations to a different location. If Public Works were to remain at its current location (45 Forest Avenue), the following facility improvements are considered critical:

Repair/Improvement	Estimated Cost	Work Completed
Roof replacement[1]	$185,000	FY 14
Tuck-pointing, brick restoration, & rebuild parapet wall	$55,000	FY 14

[1] If this roof replacement project were to be completed in two phases, each phase would cost approximately $115,000 a total project cost of $230,000. This project also includes the replacement of gutters and downspouts.

If Public Works were to remain at its current location at 45 Forest Avenue, the following facility improvements are recommended:

Repair/Improvement	Estimated Cost	Work Completed
Upgrade exterior lighting-LED wall packs	$12,000	FY 15
Demolish boiler and remove piping	$10,000	FY 15
Replace heaters with hanging gas heaters (5)	$15,000	FY 15
Replace single pane glass windows (26)	$20,000	FY 15
Replace two overhead garage doors	$8,000	FY 16
Repave lot on east and south sides of garage	$25,000	FY 16
Build new garage addition[2]	$25,000	FY 16
	$118,000	

[2] Contingent upon needing additional storage for the Park District's equipment.

The following is a summary of the critically important improvements:

Roof Replacement:

This project involves the replacement of the existing roof system. There is limited information available as to the details of the roof that was installed in FY 88. There are approximately five active leaks in the roof system that contribute to the degradation of the gypsum decking (located between the roof membrane and steel girders). The useful life of the new roof system will be 20 to 25 years.

Tuck-pointing, Brick Restoration, & Rebuild Parapit Wall:

This project involves tuck-pointing along the south and west elevation of the Public Works Garage, including the parapet wall located at the southwest corner of the roof. Some sections of the exterior walls are missing mortar between the bricks and many bricks are missing altogether. It appears there may have been tuck-pointing/brick restoration work in the past, but there is limited information available as to the details of that project. Tuck-pointing/brick restoration work on the parapet wall needs to be completed prior to replacing the roof on the Public Works Garage.

Project Alternative

Roof Replacement: An alternative to this project is to contract the repair of roof leaks as they occur. Most of these roof leak repairs will likely occur on an emergency basis.

Tuck-pointing, Brick Restoration, & Rebuild Parapet Wall: An alternative to this project is replacing entire walls, or sections of walls, that would be significantly more costly and more involved as that work may impact load bearing walls/structures in the facility.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Equipment – Five Year Capital Improvement Program

The Equipment section of the Capital Improvement Program (CIP) identifies which capital equipment items need to be repaired, replaced or acquired new over the next five years. This section of the CIP identifies all equipment other than vehicles, which are noted in their own section of the CIP.

As with other sections of the CIP, these improvements are targeted for specific years and almost all are financed through the Capital Equipment Replacement Fund (CERF).

The following improvements are proposed for 2014:

Equipment	Cost of Equipment	Funding Source	This Project is:
Live Scan System	$25,000	CERF	Critical
Self Contained Breathing Apparatus	110,000	CERF	Critical
Hydraulic Extrication Equipment	$32,400	CERF	Recommended
Total	**$167,400**		

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law.

Critical projects are highlighted in yellow.

Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.

Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Equipment Summary

Equipment Summary	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Police Department									
Live Scan System	1	Critical	25,000	-	-	-	-	25,000	CERF
Speed Trailer	2	Contingent	-	14,400	-	-	-	14,400	CERF
License Plate Reader	3	Recommended	-	39,195	-	-	-	39,195	CERF
Digital In-Car Cameras	4	Critical	-	-	38,000	-	-	38,000	CERF
Internals & Street Camera System	5	Recommended	-	-	102,800	36,800	-	139,600	CERF
Overweight Truck Scales	7	Recommended	-	-	-	20,750	-	20,750	CERF
Fire Department									
SCBAs	8	Critical	110,000	-	-	-	-	110,000	CERF/Grant
Hyraulic Extrication Equipment	10	Recommended	32,400	-	-	-	-	32,400	CERF
SCBA Air Compressor	11	Contingent	-	24,200	-	-	-	24,200	CERF
ALS Defibrillator	12	Recommended	-	25,000	-	-	-	25,000	CERF
Public Works									
Brush Chipper 1800	13	Critical	$12,500 repair recommended in FY 2013						CERF
Brush Chipper 1400	15	N/A	Replacement not recommended						
Stump Grinder	17	Recommended	-	-	46,000	-	-	46,000	CERF
Sewer Televising System	19	Critical	-	65,000	-	-	-	65,000	W/S CERF
Fuel Pumps (2)	22	Recommended	-	-	24,000	-	-	24,000	CERF
Water Valve Operator	24	Critical	-	-	-	35,000	-	35,000	W/S CERF
Sign Making System	26	Contingent	-	-	-	7,500	-	7,500	CERF
Total			**167,400**	**167,795**	**210,800**	**100,050**	**-**	**646,045**	

Proposed Financing

			2014	2015	2016	2017	2018	Five-Year Total
CERF- General Fund			167,400	102,795	210,800	65,050	-	546,045
CERF- Water/Sewer				65,000		35,000	-	100,000
Total			**167,400**	**167,795**	**210,800**	**100,050**	**-**	**646,045**

Police

Live Scan System 2014 $25,000 CERF
Equipment

[X] Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost
2006- $25,000

Funding History
N/A

Project Description & Justification

The Live Scan System is an automated fingerprint system that creates digital images of an arrestee's fingerprints. Once digitized the prints are sent to several entities including the Illinois Bureau of Identification, Chicago PD and FBI and stored in their databases. This system is currently in use by and connected to all of the Cook County municipalities and streamlines the identity process. The life expectancy of the current system is 8 years.

Project Alternative
Although the cost of replacement is the responsibility of the municipality, the controlling agency for this system is Cook County. Unless the County goes to a different system in the future there is no alternative to Live-Scan.

The Live Scan System is critical to the Police Department's operations and should the project be deferred and the system malfunction, immediate replacement would be required.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	Periodic maintenance

Speed Monitor Trailer 2015 $14,400 CERF
Equipment

- Critical
- Recommended
[X] Contingent on Funding

Original Purchase Date & Cost
2004- $12,000

Funding History
N/A

Project Description & Justification

The Speed Monitor Trailer is utilized to monitor speed and alert drivers who are traveling in excess of the posted speed limit. Public Works in conjunction with the Police Department identifies locations where historically vehicles are known to travel at higher rates of speed or places the trailer in an area based on complaints/requests from residents or police officers.

Project Alternative

The alternative to this equipment would be an officer monitoring an area for speeding violations. Although this does happen often (officers enforcing speed limits) as part of traffic enforcement missions, utilizing a speed trailer is an additional tool to control excessive speed.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	Periodic maintenance

Automatic License Plate Reader 2015 $39,195 CERF

Equipment

- Critical
[X] Recommended
- Contingent on Funding

Original Purchase Date & Cost
2010- $34,840

Funding History
N/A

Project Description & Justification

The Automated License Plate Reader (ALPR) is currently installed in squad car #6 and consists of four cameras mounted on top of the car roof which identifies license plates through recognition software. The license plate is compared to a database of wanted vehicles (Hit List) and alerts the user that a particular vehicle is wanted for a commission of a crime. All license plates are stored on a server and can be retrieved at a later date as part of an investigation and also plotted on a map.

The ALPR was purchased in 2010. As of December 1st 2012 it has read 1.5 million license plates and has 4,407 "hits", or alerts that there is something wrong with a particular vehicle (stolen, wanted, suspended etc.). Vehicles eligible for the Denver Boot are manually entered into the system. The ALPR has identified 10 vehicles eligible for the boot at a minimum fee of $500 dollars (some boot fees are double or triple this fee) per vehicle.

Project Alternative
This is a useful tool and has yielded positive results. The useful life of this equipment is 5 years. Although replacement is recommended, if the system is still functioning properly, replacement may be deferred for another year.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	Periodic maintenance

Digital In-Car Cameras

2016 $38,000 CERF

Equipment

[X] Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost
2010- $35,425

Funding History
N/A

Project Description & Justification
The six front line police squad cars have digital cameras mounted to the dash board. The cameras/audio are used during traffic stops and arrests. Evidence obtained during a traffic arrest is utilized at some point in a trial. The traffic stops are downloaded on a server and stored for a minimum of thirty days or longer depending on the type of incident.

Project Alternative
This is a necessary tool which helps protect the Village and officer from false accusations and for obtaining evidence to support a criminal conviction. The useful life of this equipment is 5 years. Cameras are a best practice for professional police departments and considered to be standard operating procedures for police departments across the country. As such, replacement is highly recommended.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	Periodic maintenance

Internal and Street Camera System 2016 $102,800 CERF
Equipment 2017 $36,800 CERF

- Critical
[X] Recommended
- Contingent on Funding

Original Purchase Date & Cost
2009- $350,000 +

Funding History
N/A

Project Description & Justification

Village Hall Cameras
The Village currently has 37 fixed digital cameras located inside and around the outside of Village Hall. The camera system is supported by software and hardwired to a server. The cameras can be monitored by supervisors, the dispatch center and patrol officers on their squad car laptops, desktops or computers. They are used to monitor the booking room and prisoner cells along with the front doors and lobby. These cameras are fixed and have no moving parts. The estimated life of this equipment is approximately 12 years.

Street Cameras
The village currently has 8 Pan-Tilt-Zoom digital cameras located along the TIF district on Lake St. The camera system is supported by software, servers and a wireless antenna system. The cameras can be monitored by supervisors, the dispatch center and patrol officers, on their squad car laptops, desktops or video monitors. The digital images are stored for a minimum of thirty days and are routinely used as evidence in criminal cases. These cameras have moving parts and are out in the elements, therefore they are prone to a shorter life expectancy than fixed cameras, such as those at Village Hall. The estimated life of the equipment is approximately 4 years. However, the cameras are covered under a maintenance agreement until May of 2016.

Camera System Antenna, Servers and Software

The street camera system is supported by software, servers and a wireless point to point antenna array located on the roof of the 414 Clinton Place Condos building. The antenna collects the digital signals from the cameras and transmits the signals back to the server located in Village Hall. The estimated life of the equipment is estimated to be approximately 4 years. However, this is also covered under a maintenance agreement until May of 2016.

The 47 cameras located in village hall and along the former TIF district on Lake Street are supported by software and three servers for video storage and retrieval. The digital images are stored for a minimum of thirty days and routinely used as evidence in criminal cases.

The software controls the cameras and allows supervisors, dispatchers and officers to view video on their squad car laptops, desktops or computers. The software also allows the retrieval of digital images that are stored on the servers and routinely used as evidence in criminal cases.

Project Summary

Component	**Year**	**Cost**
Street Cameras	2016	$35,000
Wireless Point to Point Antenna	2016	$52,000
System Software	2016	$15,800
System Servers	2017	$36,800
Village Hall Cameras	2021	$18,700
Total		$158,800

Project Alternative

This program to date has been very successful. Numerous crimes have been captured via video surveillance. As with any technology the hardware and software becomes outdated and should be replaced with newer technology. The continuation of this program is highly recommended.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	Periodic maintenance

Overweight Truck Scales

2017 $20,750 CERF

Equipment

- Critical
[X] Recommended
- Contingent on Funding

Original Purchase Date & Cost
2006- $16,600

Funding History
N/A

Project Description & Justification
The Police Department currently owns four truck scales. These scales are placed under each of the tires of a suspected overweight vehicle. If determined to be overweight, the fine could be substantial depending on the violation. The Police Department conducts annual overweight truck enforcement missions and the dayshift patrol has a trained overweight enforcement officer who does periodic enforcement, separate from the planned missions. The scales are certified by the Illinois State Police annually. The useful life expectancy is 10 years.

Overweight truck fines produce approximately $20,000 in revenue each year.

Project Alternative
Without the portable truck scales the enforcement officers will have to seek alternate weight scales. This would require an officer to have the truck follow the officer to an alternate location increasing the amount of time on the traffic stop which increases the unavailability of the officer. The purchase of this equipment may be deferred for one year depending on the condition at the time.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	Periodic maintenance

Self Contained Breathing Apparatus (SCBA) Equipment — 2014 — $110,000 — CERF

X Critical
\- Recommended
\- Contingent on Funding

Original Purchase Date & Cost
2001 - $71,200

Funding History
2011-2012 (thru 11/30) Repairs=$4,525

Project Description & Justification

This project will upgrade and replace 20 self-contained breathing apparatus (SCBA's). The equipment is a critical part of the firefighter's personal protective equipment (PPE). The National Fire Protection Association (NFPA) standard is to update SCBAs every 5 years. Extensive changes for breathing apparatus have pushed the next scheduled update to 2013. The Village's equipment has a 10-year useful life and is in the third upgrade cycle, with a total life of more than 12 years. Upgrades enhance the safety of firefighters when operating in an lDHL (immediately dangerous to life and health) atmosphere.

New standards include: low air audible alarms for the front and back of the SCBA, visual air level indicators within the mask and interoperable quick-fill valves for firefighters trapped and out of air.

The purchase of new SCBAs has been delayed to take advantage of the new standards to be released in 2013 and to exhaust all possibilities of receiving a grant for the purchase of this equipment.

Staff has applied for an Assistance to Firefighter's Grant (AFG) to replace 18 of the 20 SCBAs. If awarded the grant, the Village would be responsible for a 5% share of the grant award as well as the full purchase price of two remaining SCBAs for a total cost of $15,950.

Project Alternative

The alternative to this purchase is to continue maintaining outdated, non-compliant (NFPA Standard) air packs that provide sufficient protection when operating properly.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$1,700 savings by reducing testing costs of SCBA's in the first 2 years after purchase.	Continue annual maintenance & flow testing after second year. The Fire Department intends to send two maintenance personnel to the SCBA workshops to train on maintenance of air packs in an attempt to further reduce operating costs.

Hydraulic Extrication Equipment 2014 $32,400 CERF
Equipment

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost
1999 - $11,000

Project Description & Justification

Upgrade and replace the hydraulic extrication tools on the frontline engine.

This piece of equipment is operated by firefighting crews during vehicular accidents and technical rescue responses. The current multi-function unit is in year 14 with a planned useful life of 10 years. With age all units lose power / operating pressures that ultimately reduce the ability to efficiently complete extrication

New technology allows for lighter weight tools and more powerful lifting, spreading and cutting pressures. The new unit is battery operated, taking up less space on apparatus. The "E-Draulic Hurst" extrication equipment includes state of the art tools, which are lighter and faster. Thus, the tools are easier for personnel to operate, thereby reducing the potential for back injuries as well as expediting the removal of persons during emergency situations. The new tools are also designed to more quickly cut through newer car models.

Project Alternative
The alternative to this purchase is to continue maintenance of the equipment and keep it usable for as long as possible. However, if the equipment fails and is not repairable, immediate purchase would be required.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$795 savings in 2014	Continue annual maintenance after first year warranty period.

SCBA Breathing Air Compressor 2015 $24,200 CERF
Equipment

Critical
Recommended
X Contingent on Funding

Original Purchase Date & Cost
1999 - $17,200

Project Description & Justification

Upgrade and replace the Air Compressor that fills the self-contained breathing apparatus (SCBA's).

This piece of equipment is a specialized compressor with a specific filtering system necessary to fill the breathing air required for firefighters to enter an lDHL (immediately dangerous to life and health) atmosphere. The scheduled purchase of a new SCBA air compressor has been previously deferred because the current unit is lasting longer than anticipated. However this piece of equipment is critical during times of fire suppression and training when SCBA's are in use.

Project Alternative

The alternative to this purchase is to continue maintenance of the piece of equipment and keep it usable for as long as we can. However, if the equipment fails and is not repairable immediate purchase would be required. If the equipment should fail, air bottles can be filled at a neighboring fire station on an interim basis.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

ALS Defibrillator 2015 $25,000 CERF

Equipment

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost
2007 - $20,000

Project Description & Justification
Upgrade and replace the Advance Life Support (ALS) Defibrillator on the frontline ambulance. This piece of equipment is vital for paramedics to provide life support care to cardiac and trauma patients. The new 12-lead cardiac monitor provides critical information to the paramedic in the field and emergency doctor in the hospital. Besides monitoring cardiac rhythms, the Life Pac 15 monitors carbon monoxide levels, pulse, blood pressures and delivers defibrillation (electric shock) to convert dangerous dysrhythmias.

Defibrillation is a common treatment for, life-threatening, cardiac dysrhythmias. Defibrillation consists of delivering electrical energy to the affected heart through a set of affixed chest pads. Defibrillators are the only proven way to resuscitate a person who has had cardiac arrest who is still in ventricular fibrillation (V-fib) or ventricular tachycardia (V-tach). The success rate for V-fib patients receiving a first shock treatment is greater than 90%.

The Fire Department's intent is to purchase and place the new ALS defibrillator on the front line ambulance and move the current frontline equipment (pictured aboce) to ALS Engine 222.

Project Alternative
The alternative to this purchase is to continue maintenance of the current piece of equipment and keep it usable for as long as possible. However, if the equipment fails and is not repairable, immediate purchase would be required. Lead time for defibrillators is approximately 2 months from purchase to receipt of units.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$200 savings during first year after purchase.	Continue annual maintenance after warranty period.

Brush Chipper-1800 Model 2013 $12,500 CERF

X Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost

Purchase Cost	$29,755
Purchased	FY 99-00
Useful Life	10 yrs
Current Life	14 yrs

Equipment Description

This unit (1800 model) is one of two chippers used by the Public Works Department to chip tree debris. The unit has a capacity to chip branches and logs up to 18-inches in diameter that are associated with tree removals, tree trimming, and emergency storm damage cleanup. This brush chipper is considered the workhorse for the Village's forestry operations and is utilized during the initial response to tree damage caused by storms. There are over 8,500 parkway trees in the Village that are maintained by the Public Works Department.

Total Equipment Hours/Miles	4,215 (As of October 26, 2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
Jul-11	Oil pressure censor	$50	1 Day
Aug-11	New axle	$2,700	10 Days
Sep-12	Radiator cap, thermostat, engine diagnostics	$300	7 Days
Dec-12	Rebuild Starter	$400	2 days

Project Alternatives

This unit was scheduled to be replaced in FY 14 at a cost of $77,000. Current and ongoing engine problems have resulted in anti-freeze leaking into the engine block (despite recent repairs to the unit). Staff anticipates that the unit will need significant additional repairs in the immediate future and therefore recommend that it be repaired or replaced as soon as possible.

The cost for this type of equipment has increased dramatically since the chipper was purchased in 2000 due to the following factors:

- Tier 3 diesel exhaust emission regulations were implemented since this unit was purchased. An additional increase of approximately 23% is expected in the summer of 2013 when units with stricter tier 4 machines reach distributors.

- Dramatic increase in the cost of steel

The following is a list of alternatives to replacing the existing brush chipper:

1. Continue using the brush chipper and paying for repairs on an as-needed basis (until it breaks down completely).
2. Rebuild the engine at an estimated cost of $12,500
3. Purchase a used brush chipper at an estimated cost of $37,000
4. Jointly purchase and share (new or used) equipment with a neighboring municipality.
5. Lease a brush chipper.
6. Outsource brush chipping associated with tree removals, tree trimming, and storm damage.

Due to increased costs associated with new and used brush chippers, and the need to maintain an in-house brush chipping program, Staff recommends rebuilding the engine in the existing brush chipper at an estimated cost of $12,500 in the current budget year (in advance of the 2013 spring rain/storm season). This would extend the useful life of the brush chipper by approximately 6 years, thus deferring the replacement of the unit to FY 2020.

Operational Impact

The elimination of this brush chipper would reduce the chipping capacity by approximately 70% and would result in the need to contract tree and brush chipping operations for larger sized debris, including emergency storm response.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Brush Chipper-1400 Model

Not Recommended for Replacement

Original Purchase Date & Cost

Purchase Cost	$22,500
Purchased	FY 02-03
Useful Life	10 yrs
Current Life	11 yrs

Equipment Description

This unit is the second of two brush chippers used by the Public Works Department to chip tree debris. This unit has a capacity of up to 14-inches in diameter for branches and logs that are associated with tree removals, tree trimming, and emergency storm damage cleanup. This brush chipper is utilized as a secondary unit for the Village's forestry operations and is used primarily for routine tree trimming and assists with chipping storm debris.

Total Equipment Hours	1,531 (As of 10/26/2012)

Breakdowns for Last 2 Years

No breakdowns in the past 2 years.

Project Alternative

Staff recommends the following:

- Not replacing this unit, at a savings of $55,000
- Remove the unit from the CERF
- Keep the unit as a fully depreciated unit until significant repairs are necessary - at which point the unit would be disposed as surplus property

This recommendation is based on the following:

- The 1800 model brush chipper is the primary unit that handles the vast majority of brush chipping. Therefore, it is recommended that funds be invested in maintaining the larger brush chipper (1800 model).

- Additional brush chipping needs, currently performed by the 1400 model, could be provided by outsourcing, leasing, and/or sharing a unit with a neighboring municipality

- Significant increases in the costs of new and used brush chippers

Operational Impact

The elimination of this brush chipper may result in longer debris clearing timelines (debris may sit on the parkway a few additional days) following large storms, however, a second chipper can be leased or borrowed during such events as necessary.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Stump Grinder 2016 $46,000 CERF

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost

Replacement Year	FY 2016
Purchase Cost	$20,000
Purchased	FY 99-00
Useful Life	15 yrs
Current Life	14 yrs

Equipment Description

This equipment grinds tree stumps by means of a rotating cutting disk that chips away the tree stump located on Village right-of-way (typically the parkway). It is the only piece of equipment in the Village's fleet that can perform this operation. The Village grinds all stumps in-house, grinding approximately 120 stumps annually.

Total Equipment Hours	8,409 (As of October 10/26/2012)

Breakdowns for Last 2 Years

The unit was initially scheduled to be replaced in FY 2015 but because there have not been any breakdowns in the past 2 years, replacement has been deferred to FY 2016.

Project Alternative

Alternatives to replacing the stump grinder in FY 16 are as follows:

1. Defer replacing the system until it breaks down completely.
2. Purchase new or used stump grinder.
3. Jointly purchase and share (new or used) equipment with neighboring municipality.
4. Lease a stump grinder.
5. Outsource all stump grinding services. This could be accomplished as a stand-alone program or in conjunction with an outsourced tree removal program.

Staff will solicit and analyze pricing for each of the aforementioned alternatives and evaluate closer to the scheduled replacement of this equipment.

Operational Impact

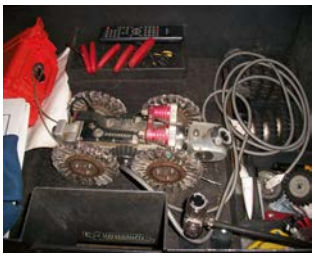
Although there are alternatives for performing and/or providing for the removal of parkway tree stumps, not performing or providing this service would create trip hazard liabilities to the Village by eliminating the Village's capacity to remove tree stumps.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Sewer Televising System 2015 $65,000 W/S CERF

X Critical
\- Recommended
\- Contingent on Funding



Original Purchase Date & Cost

Replacement Year	FY 15
Purchase Cost	$49,250
Purchased	FY 04-05
Useful Life	10 yrs
Current Life	9 yrs

Equipment Description

This equipment is used by Public Works personnel to televise and visually inspect the interior of the Village's sewer mains for the purpose of identifying cracks, breaks, and failing sections. This maintenance program is performed during routine and emergency televising situations. The process of sewer televising involves first cleaning the sewer pipe (sewer jetting) and then lowering a motorized camera into a manhole. Using the controls handset, the motorized and lighted camera system then travels through the cleaned pipe, documenting the condition of the interior of the sewer pipe and where visible, private lateral connections.

The Village's existing equipment contains several key features that the previous system did not:

- Unit is self-propelled
- Includes a "pan and tilt" camera head which can be used to inspect lateral connections.
- All equipment is contained within a cabinet that can be lifted into the back of a cargo van. The cabinet includes drawers for accessory parts, video tapes, sewer maps etc.

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
Jul-12	Short circuit in power cable for remote camera unit	$1,200	3 Days
Ongoing	Intermittent blown fuses in cable reel unit. Cause has not been determined.	$40	Immediate

Project Alternative

During the mid-1990's, the Village outsourced production televising of nearly all sewer mains in the Village. Those videos (VHS tape recordings that were later converted to CD) were used to identify and prioritize sewer point repairs (remove/replace sewer sections in poor condition) and candidates for sewer relining.

In 2011, after addressing nearly all of the sewer problems (that were televised during the 1990's) via point repairs and relining, Public Works initiated an in-house sewer televising program to identify problems with the Village's sewer system that have developed since the 1990's. 2012 is the first year Public Works tracked how many lineal feet of sewer has been televised in-house. To date, 6,149 lineal feet of sewers were televised.

Considering that the Village's combined sewer system is critically important infrastructure, visually inspecting the system on a routine schedule is critical to maintaining the pipes in a good condition so that the pipes can effectively convey storm and sanitary flow.

Alternatives to replacing the sewer televising equipment in FY 15 are as follows:

1. Defer replacing the system until it breaks down completely.
2. Purchase new or used televising system.
3. Jointly purchase and share (new or used) equipment with neighboring municipality.
4. Lease a televising system.
5. Outsource all sewer televising services.

Staff will solicit and analyze pricing for each of the aforementioned alternatives and evaluate closer to the scheduled replacement of this equipment.

Operational Impact

Although there are alternatives for performing/providing this infrastructure maintenance program, not performing or providing this service would compromise the Village's efforts to

proactively eliminate cracks, breaks, and failing sections of Village sewers that could result in sewer backups into homes and businesses.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Fuel System Improvements 2016 $24,000 CERF
Equipment

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost
Fuel tanks and pumps installed in 1990; cost unknown

Project Description & Justification
This improvement project involves the emptying and cleaning of the 6,000 gallon unleaded and 2,000 gallon diesel underground storage tanks, replacement of the existing fuel pumps, and upgrades to the management software.

A breakdown of project expenditures is as follows:

- Empty and clean the unleaded and diesel storage tanks: $4,000
- Replace unleaded and diesel fuel pumps (includes electrical work): $17,000
- Upgrade management software: $3,000

Recent repairs/improvements to the fuel pumps include:

- FY 12 – Replaced unleaded fuel suction pump
- Replaced all hoses

Project Alternative

The primary alternative to this system maintenance / improvements is to eliminate the fuel system altogether and purchase unleaded and diesel fuel at privately owned service stations. A summary of this option is presented as follows:

Between December 2011 and November 2012, the Village purchased the following quantities of fuel from various vendors (Staff solicits three quotes prior to placing each fuel delivery order):

	Gallons of Fuel	Total Cost of Fuel
Unleaded:	29,010	$94,655
Diesel:	15,456	$44,506
Total:	44,466	$139,161

The following is a comparison of costs associated with purchasing fuel from a local service station and the fuel vendor from which the Village frequently purchases fuel.

Date: 12/28/2012	Unleaded Fuel	Diesel Fuel
Fuel Vendor: Warren Oil	$2.89 /gal.	$3.38 /gal.
Local Service Station: Mobil* (retail) (1st Avenue & Madison Street, Maywood)	$3.41 /gal.	$3.89 /gal.
Difference:	$0.52 /gal.	$0.51 /gal.

*This Mobil station was selected as it is the closest station that sells diesel fuel.

Assuming the price per gallon differential would have remained relatively constant over the past 12-month period, the Village would have paid approximately $15,085 more for unleaded fuel and approximately $7,882 for diesel fuel at the Mobil service station – total of $22,967.

The Village incurs the following expenses (annually) that are associated with the fuel system:

Routine maintenance & repair break downs	$1,000 annually
Storage Tank Liability Insurance	$1,200 annually
CERF contribution	$1,265 (in FY 13)
Total:	$3,465

Based on this analysis, the most cost effective means for fueling the Village's fleets (Public Works, Police, and Fire) is maintaining an in-house fuel dispensing system.

Underground Storage Tanks (USTs): The Village's two fiberglass USTs were installed in FY 1990 at a cost of $90,000. These tanks have a useful life of approximately 30 years and their replacement is incorporated in the CERF (projected replacement in FY 2020).

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Water Valve Operator 2017 $35,000 W/S CERF

X Critical
\- Recommended
\- Contingent on Funding

Original Purchase Date & Cost

Replacement Year	FY 17
Purchase Cost	$16,069
Purchased	FY 01-02
Useful Life	15 yrs
Current Life	12 yrs

Equipment Description

The water valve operator is utilized to exercise water main valves in order to keep the valves in good operating condition. Valves that are not exercised regularly have a tendency to freeze or lock up which could prevent proper closure of the valve during a water shut-off. The Village has established a 4-year cycle on valve exercising.

Water shut-offs are most often required during the repair of water main breaks and it is the Village's goal to minimize the impact of these shut offs on residential and commercial properties.

Breakdowns for Last 2 Years

No breakdowns in the past 2 years.

Project Alternative

In 2001 and 2002, the Village outsourced valve operating services for approximately two-thirds of the Village's water system's valves (one-third in each year). Subsequent to performing an analysis on outsourcing this program compared to purchasing the equipment and performing the service in-house, the Village opted to purchase the current valve operator. There are approximately 390 valves in the Village's water distribution system.

Alternatives to replacing the valve operating equipment in FY 17 are as follows:

1. Defer replacing the equipment until it breaks down completely.
2. Purchase new or used equipment.
3. Jointly purchase and share (new or used) equipment with a neighboring municipality.
4. Lease valve operating equipment.
5. Outsource all valve operating services.

Staff will solicit and analyze pricing for each of the aforementioned alternatives and evaluate closer to the scheduled replacement of this equipment.

The current valve operator is mounted on a Public Works pickup truck. This truck-mounted configuration requires modifications to the truck that are expensive and ultimately reduce the resale value of the truck. The replacement valve operator should be replaced with a trailer mounted self-contained unit that is not dedicated to a specific truck and can be towed by different vehicles.

Operational Impact

Although there are alternatives for performing/providing this infrastructure maintenance program, not performing or providing this service would compromise the Village's efforts to proactively maintain the Village's water system valves that could result in water shut-offs affecting a significantly higher number of residents and/or businesses than desired or necessary.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Sign Making System

2017 $7,500 CERF

- Critical
- Recommended
X Contingent on Funding

Original Purchase Date & Cost

Replacement Year	FY 17
Purchase Cost	$9,675
Purchased	FY 99-00
Useful Life	10 yrs
Current Life	14 yrs

Equipment Description

The Village's street sign-making system allows Public Works personnel to design regulatory and street name signs. The unit also cuts reflective and other sign media that is installed on sign blanks. The system is comprised of the following components:

- Computer with management software
- Plotter/cutter (with stand) – cuts sign media up to 60" in width
- Sign roller – utilizes pressurized roller to aid adhering the sign media to the sign blank

The initial replacement cost was $12,500 and has since been reduced to $7,500 to reflect replacing only the computer, management software, and plotter-cutter. Because the unit is in excellent operating condition, the sign roller will have a useful life of 5 to 8 more years.

Breakdowns for Last 2 Years

No breakdowns in past 2 years.

Project Alternative

An alternative to replacing this system is to purchase all street and regulatory signs from sign vendors. Staff will solicit and analyze pricing for the replacement of the system along with outsourcing the production of all signage closer to the scheduled replacement of this equipment.

Staff is giving strong consideration to outsourcing the production of all signage as there are a number of sign vendors who produce signage at competitive prices.

Operational Impact

Without maintaining a system in-house, Public Works would lose the ability to make its own signs and therefore would have to purchase from outside vendors. Staff does not believe this would adversely impact operations of the department.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Streets Improvements – Five Year Capital Improvement Program

The Village of River Forest recognizes the importance of consistently maintaining its streets, sidewalks and alleys to ensure the safety of drivers and pedestrians.

Street System Overview

The Village has 31.6 miles of centerline streets. The recommended funding level for the next 5 years will maintain the average street rating in a good or excellent condition. The Village conducts an annual pavement inventory study and has implemented a microsurfacing and crack sealing program to prevent degradation of the streets. The Village rates streets as follows:

Streets		
Surface Condition	**Pavement Ranking**	**Estimated Remaining Life**
Excellent	7.6 – 9.0	15 to 20 years
Good	6.1 – 7.5	10 to 15 years
Fair	4.6 – 6.0	6 to 10 years
Poor	1.0 – 4.5	2 to 5 years

Sidewalk & Curb System Overview

The Village of River Forest recognizes the need to have a network of safe pedestrian accesses throughout the community. The primary emphasis of the sidewalk program is to ensure the safety of the Village's sidewalks. To that end, the Village funds 100% of the replacement cost of sidewalk in immediate need of replacement.

The following improvements are proposed for 2014:

Improvement	Cost of Improvement	Funding Source	Nature of Project
Street Maintenance	$93,000	General Fund	Recommended
Street Patching	$65,000	General Fund	Critical
Sidewalk Replacement	$45,000	General Fund	Critical
Curb & Gutter Replacement	$15,000	Water/Sewer	Critical
Alley Maintenance	$594,610	General Fund- $110,441 Grant- $484,169	Recommended
Municipal Refuse Cans	$10,800	General Fund	Contingent on Funding
Parking Lot Improvements	$15,000	General Fund	Recommended
Madison Street ITEP Grant	$246,325	General Fund	Recommended
Street Improvement Program	$165,240	MFT- $145,800 Water/Sewer- $19,440	Critical
Total:	**$1,249,975**		

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law- these projects highlighted in yellow.
Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.
Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Streets, Sidewalks, Curbs & Alleys Summary

Streets, Sidewalks and Alleys	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Street Maintenance Program- Crack Sealing & Microsurfacing	1	Recommended	93,000	95,000	100,000	105,000	110,000	503,000	General
Street Patching Program	4	Critical	65,000	70,000	75,000	80,000	85,000	375,000	General & W/S
Sidewalk Replacement	6	Critical	45,000	47,500	50,000	52,500	55,000	250,000	General
Curb & Gutter Replacement	6	Critical	15,000	16,000	17,000	18,000	19,000	85,000	W/S
Alley Maintenance Program	8	Recommended	594,610	25,000	25,000	30,000	30,000	704,610	General/Grant
Municipal Refuse Cans	10	Contingent	10,800	-	-	-	-	10,800	General
Municipal Parking Lot Improvements	11	Recommended	15,000	-	-	-	-	15,000	General
Madison Street ITEP Project	12	Recommended	246,325	-	-	-	-	246,325	General
Street Improvement Program (SIP)	13	Critical	165,240	545,400	561,600	318,600	318,600	1,909,440	MFT & W/S
Total			**1,249,975**	**798,900**	**828,600**	**604,100**	**617,600**	**4,099,175**	

Proposed Financing			2014	2015	2016	2017	2018	Five-Year Total
General Fund			575,566	227,500	240,000	257,500	270,000	1,570,566
Motor Fuel Tax (MFT)			145,800	437,400	448,200	270,000	270,000	1,571,400
Water and Sewer Fund			44,440	134,000	140,400	76,600	77,600	473,040
General Fund- Grant Financing			484,169	-	-	-	-	484,169
Total			**1,249,975**	**798,900**	**828,600**	**604,100**	**617,600**	**4,099,175**

Public Works

Street Maintenance Program	2014	$93,000	General Fund
Streets	2015	$95,000	General Fund
	2016	$100,000	General Fund
	2017	$105,000	General Fund
	2018	$110,000	General Fund

- Critical
X Recommended
- Contingent on Funding

Spending History	**Crack Sealing**	**Microsurfacing**	**Total**
2012-13	$22,933	$58,282	$81,215
2011-12	$14,268	$18,003	$32,271
2010-11	$20,377	$69,848	$90,225
2009-10	$ 0	$ 0	$ 0
2008-09	$ 0	$ 0	$ 0

Program Description & Justification

The purpose of this preventative maintenance program, which includes joint crack sealing and microsurfacing, is to extend the useful lives of Village streets and to provide an economic alternative to conventional street resurfacing. The objective is to maintain all streets at a "Good" condition rating or better and extend the life of each crack sealed and microsurfaced street by 5 to 7 years. To accomplish this objective, a minimum annual funding level of $65,000 is recommended for microsurfacing and $25,000 for crack sealing. These funding levels are estimates, and reflect inflationary increases for construction, as actual project quantities are identified prior to construction.

To identify the streets for crack sealing and microsurfacing, Village Staff inspects all streets on an annual schedule and utilizes the Condition Rating Survey (also utilized by IDOT). Ratings of Poor, Fair, Good, or Excellent are assigned to each street segment.

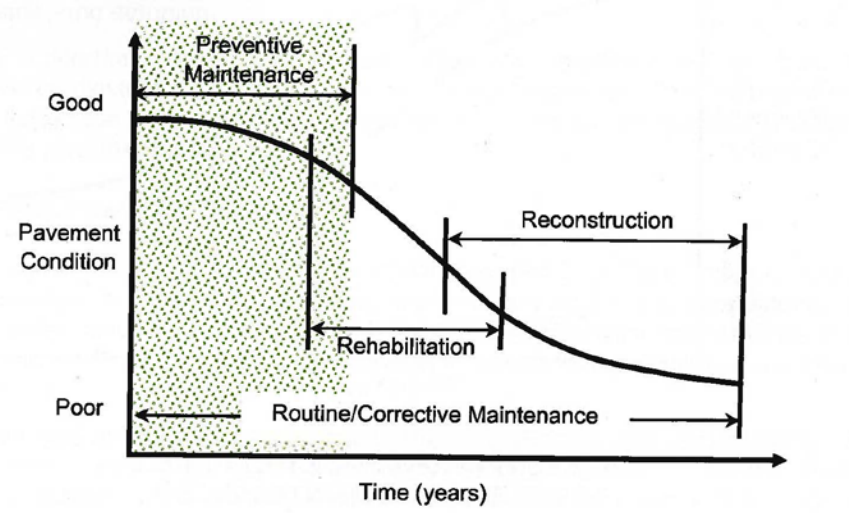
Microsurfacing is the process of covering the existing pavement surface with a petroleum-based sealant. Once this sealant cures, it creates a water-tight resilient surface. The life expectancy of a microsurfaced street is highly dependent on the condition of the existing pavement. This is why it is crucial to replace all failing areas of asphalt with new hot asphalt patching followed by the sealing of all joints (prevents water from infiltrating through cracks in the streets).

Village Staff identifies the streets that are suitable for the economical microsurfacing process rather than a more costly resurfacing of the street. Streets that are ideal candidates for microsurfacing are streets in "Good" and "Fair" condition where daily traffic volumes are moderate to low. Streets of all ratings that have cracks are automatically eligible for joint crack sealing.

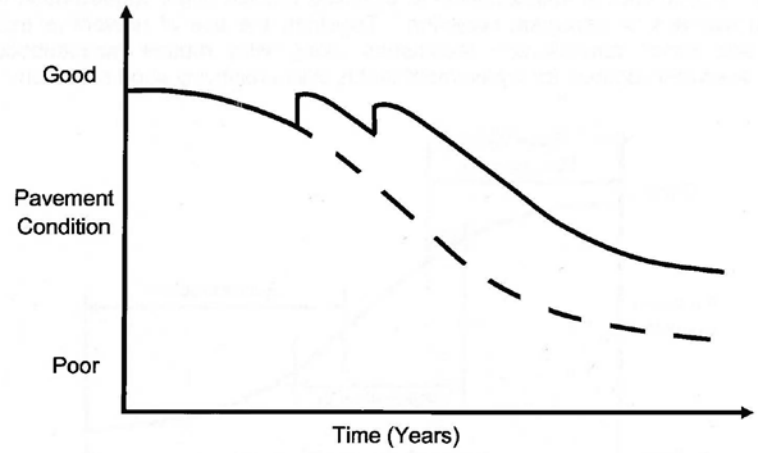
2013-14 Streets Recommended for Microsurfacing

Street	Condition Rating	Proposed Cost
Franklin Ave from Madison to Hawthorne	Good	$22,500
Park Ave from Washington to Hawthorne	Good	$12,500
Linden St from Park to Lathrop	Good	$12,500
Forest Ave from Lake to Chicago	Good	$20,500
		$68,000

The following figure demonstrates the relationship between pavement condition and typical types of pavement preservation and /or street improvements:



The following figure demonstrates how preventative maintenance can extend pavement performance:



PAVEMENT PERFORMANCE EXTENDED BY PREVENTIVE MAINTENANCE

Program Alternative

The alternative is a reactive maintenance program that will accelerate deterioration of Village streets. These maintenance programs, along with pavement patching, will prolong the useful life of Village streets. By not pursuing these maintenance programs, the following infrastructure improvements will be necessary at more frequent intervals:

- Resurfacing: This is a more costly improvement that requires the removal and replacement of the existing worn pavement and minimal base improvement. This type of construction is normally completed over a several week period while microsurfacing can be completed in one day.

- Reconstruction: This is a significantly more costly improvement that is necessary in situations of surface pavement failure along with extensive base failure.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Street Patching Program	2014	$65,000	General Fund & W/S
Streets and Alleys	2015	$70,000	General Fund & W/S
	2016	$75,000	General Fund & W/S
	2017	$80,000	General Fund & W/S
	2018	$85,000	General Fund & W/S

X Critical
\- Recommended
\- Contingent on Funding

Original Purchase Date & Cost	**Spending History**	**GF**	**W&SF**	**Total**
N/A				
	2012-13	$51,732	$7,342	$59,074
	2011-12	$42,799	$2,330	$45,129
	2010-11	$63,776	$7,901	$71,677
	2008-09	$47148	$8,000	$55,148
	2008-09	$102,682	$0	$102,682

Program Description & Justification
The purpose of this program is to maintain and improve surface conditions of Village streets and alleys by patching defective areas. This program is intended for streets and alleys of all condition ratings to prolong their useful lives. To accomplish this goal, an annual funding level of $65,000-$85,000 over the next five years is recommended. These funding levels are estimates and reflect inflationary increases for construction.

Historically, Village Staff inspected all streets annually and the areas of pavement failure were placed on a patching list which was provided to the Village's contractor. Village Staff inspects alleys and schedules patching as needed in alley locations. Pavement Street patching utilizes hot mix asphalt (HMA), the standard material approved by the Illinois Department of Transportation for surface repairs. Two inches (thickness) of the failing surface pavement is milled and replaced with new HMA. This patching process is more permanent and resilient than the use of asphalt "cold" patch.

Included in this street patching program are Water and Sewer funds ($10,000 annually) to install HMA patches on street openings created for the repair of the Village's water and sewer systems.

Subsequent to the completion of pavement patching, the joint crack sealing operation is engaged to fill the joint along the perimeter of each patch. This operation, performed under a separate contract, is intended to prevent moisture from infiltrating the perimeter of the patch and expediting its failure.

2013-14 Streets Recommended for Patching Repairs
Various locations throughout the Village that will be identified in Spring 2013.

Program Alternative
The primary alternative is to resurface the street. Resurfacing, which is a more costly process, involves not only the replacement of defective surface but also additional surface areas that have not begun to deteriorate.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

50/50 Sidewalk, Curb & Gutter	2014	$45,000	GF	$15,000 W&S
Sidewalks, Aprons, and Curb	2015	$47,500	GF	$16,000 W&S
	2016	$50,000	GF	$17,000 W&S
	2017	$52,500	GF	$18,000 W&S
	2018	$55,000	GF	$19,000 W&S

X Critical
\- Recommended
\- Contingent on Funding

Original Purchase Date & Cost	**Spending History**	**GF** (sidewalk & aprons)	**W & S** (curb & gutter)	**Total**
N/A				
	2012-13	$43,648	$15,360	$59,008
	2011-12	$44,001	$ 4,615	$48,616
	2010-11	$34,831	$ 5,712	$40,543
	2009-10	$40,030	$ 8,193	$48,223
	2008-09	$46,854	$ 4,624	$51,478

Program Description & Justification

The purpose of this program is to improve the overall condition of public sidewalks and curb/gutters throughout the Village. The objective is to eliminate all trip hazards for pedestrians. To accomplish this objective, an annual funding level of $50,000-$74,000 is recommended. Failure to implement a sidewalk improvement program to repair deteriorated/damaged sidewalk can expose the Village to liability resulting from trips and falls.

For the purposes of this program, the Village is divided into three geographical areas. Village Staff conducts annual inspections of all public sidewalk in each of these three areas over three-year periods. Sidewalks are rated according to the displacement of adjoining sidewalk squares that pose a potential for trip hazard. The following table identifies the sidewalk condition ratings, description of condition, and the recommended action:

Sidewalk Condition	**Joint Displacement**	**Recommended Action**
A	> 1/2" but < or = 1"	Consider Replacement
B	>1" but < 1 ½"	Recommend Replacement
C	>1 ½" with loose/missing pieces	Replace immediately

During annual inspections, the Village solicits participation in the 50/50 sidewalk replacement cost share program for sidewalk with a "B" rating. A copy of the inspection form is delivered to property owners describing the sidewalk's condition and requests their participation. The Village replaces all sidewalk with a condition "C" rating. The Village also installs detectable warning pads, located at street crossings and intersections, that are designed for the visually

impaired to feel the raised, truncated domes with their feet. The following is a summary of proposed expenditures for FY 14:

General Fund:	
Sidewalk – Condition C (100% Village):	$30,000
Sidewalk – Condition A or B (50/50):	$10,000 (revenue - $5,000)
Driveway Aprons (100% Resident):	$2,500 (revenue - $2,500)
Detectable Warning Pads (100% Village)	$2,500
Water & Sewer Fund:	
Curb/gutter (100% Village):	$15,000

Sidewalk and Curb Annual Inspection Areas:

Area No.	Area Limits	Inspection Years
1	Des Plaines River to Harlem /Hawthorne to Chicago	2015, 2018, 2021
2	Thatcher to Harlem / Chicago to Greenfield	2013, 2016, 2019
3	Thatcher to Harlem / Greenfield to North Thatcher to Lathrop / Madison to Hawthorne	2014, 2017, 2020

In addition to the annual inspection of the aforementioned designated areas, Village Staff inspects all sidewalk in close proximity to schools, parks, and commercial/retail areas on an annual base.

The Village also allows property owners to replace their driveway aprons through this program at 100% cost to the property owner (full payment due to the Village prior to commencement of work). The primary benefit to the property owner is that they receive competitively bid pricing for their improvement.

Program Alternatives

Although the preferred option is sidewalk replacement, alternatives to this program involve the installation of asphalt cold patch in the displaced joints and/or grinding off the edge of the raised sidewalk. Not only is the patching option aesthetically unattractive, the asphalt can break loose and re-expose the displaced sidewalk that re-establishes liability to the Village and increases maintenance costs.

Another option is mud-jacking which is a process of filling cavities or voids beneath concrete. The Village does not currently own equipment to perform this mud-jacking operation.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Alley Improvement Program	2014	$ 594,610	Grant & General
	2015	$ 25,000	General Fund
	2016	$ 25,000	General Fund
	2017	$ 30,000	General Fund
	2018	$ 30,000	General Fund

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost
N/A

Spending History

2012-13	$14,745
2011-12	$0
2010-11	$0
2009-10	$0
2008-09	$0

Program Description & Justification
The purpose of this program is to improve the condition of Village alleys. To accomplish this objective, an annual funding level of $25,000-$30,000 over the next five years is recommended. These funding levels are estimates, and reflect inflationary increases for construction, as the actual projects have yet to be identified. The Village alley improvement program utilizes the Special Service Area process, with a 50-50 cost share with the adjoining property owners, to resurface alleys. The resurfacing phase involves grinding off approximately 1½ inches of the existing surface, repairing the alley's base as necessary, and paving an hot mix asphalt overlay of approximately 1½ inches.

A Special Service Area (SSA) is a taxing mechanism used to fund infrastructure improvements such as roadway resurfacing. Subsequent to the completion of the improvement project, the property owner's proportional share (50/50 funding split with the Village) of construction and other incidental costs (legal and administrative) in the form of SSA taxes would be levied and appear on each of the property owner's real estate tax bills over a one or two year period. The SSA would require the approval of a simple majority of property owners.

The SSA process is initiated by 51% (or more) of the property owners filing a petition expressing their interest in the resurfacing of the alley. All property owners will have an opportunity to express their support or opposition to the SSA during the public hearing and/or the required 60-day period following the public hearing.

The following tables summarize the alley rating system:

Alleys		
Rating	**Pavement Condition**	**Drainage**
A	Like New	Excellent
B	Minor Cracking	Minor Standing Water
C	Pronounced Cracking	Standing Water
D	Major Cracking and Pavement Settling	Major Standing Water
E	Failed Pavement – Needs Immediate Repair	Flooding & Hazardous Conditions

2013-14 Alleys Recommended for Repair

1. Local Alley Project - 300 block of Lathrop Avenue & Ashland Avenue: This alley is located on public property. The Special Service Area (SSA) process will be utilized to coordinate the improvement of this alley which has a condition rating of "D". Included in the proposed FY 14 budget is $25,000 for the construction phase of this alley improvement. An additional $5,000 is proposed for the legal/administrative costs associated with this project that is budgeted under a separate line item.
2. Green Alleys Project: The Village applied for a $484,169 grant through the IEPA's IGIG grant program. The Village's required local match is approximately $85,441. The IEPA is scheduled to make an award in the spring of 2013. The construction phase of this project is subject to the timing of the award (if the Village is fortunate to be a grant recipient). If construction is not feasible in FY14, it may be re-budgeted in FY 15 if the IEPA offers another IGIG program. The Village was not selected for IGIG funding for the Green Alleys Project in 2011. Therefore, a new application was submitted for 2012 (same scope of work).

FY 14 Cost Summary for Alley Improvement Program

1. $25,000 Local alley project – construction
2. $484,169 Green Alleys Project - IGIG grant
   $ 85,441 Green Alleys Project - Village/local grant match
   $594,610 Total Alley Projects Cost

Program Alternative

Not performing any surface maintenance, particularly for alleys in deteriorating conditions, will result in total pavement failure and require reconstruction (of base and surface) which is significantly higher in cost compared to resurfacing.

Extensive pavement patching may be somewhat cost effective initially for alleys with better condition ratings, and may slow down the progression of potholes, but the pavement patching needs will be ongoing and likely promote the continued deterioration of the pavement's base that will significantly increase eventual resurfacing costs.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Replace Municipal Refuse Cans	2014	$10,800	General Fund

- Critical
- Recommended
X Contingent on Funding

Original Purchase Date & Cost
N/A

Spending History
N/A

A (New)

B (Old)

Program Description & Justification

The purpose of this program is to improve the Village's aesthetic appearance by replacing approximately twelve (12) municipal refuse cans (see B above) that are located on Village right of ways throughout the Village with the can pictured in (A) above. Some of these cans have not been replaced in many years and are showing signs of rust. The cost to replace each can is approximately $900.

Program Alternative

The alternative is to delay the purchase and reschedule during later years.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Parking Lot Improvements	2014	$ 15,000	General Fund/ Parking Reserve

- \- Critical
- X Recommended
- \- Contingent on Funding

Original Purchase Date & Cost	**Spending History**	
N/A	2012-13	$3,920 (Lot A, sealcoating)
	2011-12	$2,998 (Lot E, sealcoating)
	2010-11	$0
	2009-10	$0
	2008-09	$0

Program Description & Justification

The purpose of this program is to improve the condition of the parking/driving surfaces of Village-owned parking lots. The Village owns and/or maintains six parking lots:

a) Village Hall - 400 Park Avenue
b) Public Works Garage - 45 Forest Avenue
c) Southeast corner of Lake Street and Park Avenue
d) West Commuter Lot - 400 block of Thatcher Avenue- **Resurfacing Scheduled for 2014**
e) East Commuter Lot - 400 block of Thatcher Avenue
f) Lot on south side of 7915-7919 North Avenue – contiguous to CVS parking lot

Several options for improving parking lots include resurfacing, asphalt patching, seal-coating, and crack sealing. In fiscal years 2012 and 2013, the conditions of the asphalt surfaces on the two parking lots that were improved (Lots A and E) were considered to be in good condition which allowed seal-coating as an improvement option.

Program Alternative

Not performing any surface maintenance, particularly for lots in deteriorating conditions, will result in total pavement failure and require reconstruction (of base and surface) which is significantly higher in cost compared to resurfacing. Extensive pavement patching , crack sealing, and seal-coating is a cost effective option and may slow down the progression of potholes, but the pavement patching needs will be ongoing and could allow for the continued deterioration of the pavement's base that will significantly increase eventual resurfacing costs.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Madison Street ITEP Project

2014 $ 246,325 General Fund

- \- Critical
- X Recommended
- \- Contingent on Funding

Original Purchase Date & Cost
N/A

Spending History
N/A

Program Description & Justification
The purpose of this program is to improve the streetscape in the Madison Street commercial corridor from Des Plaines Avenue to Van Buren Street (railroad tracks). This is a joint grant application between the Villages of Forest Park and River Forest made to the Illinois Department of Transportation's Illinois Transportation Enhancement Program (ITEP). The project will consist of the replacement of sidewalk, installation of brick pavers, pedestrian scale lighting, intersection bump outs to protect parking areas and better accommodate pedestrian travel, planter boxes and benches.

The previously constructed Madison Streetscape has been instrumental in the redevelopment of a significant portion of the downtown area within Forest Park. This redevelopment has revitalized business and provided economic benefit to the community. Similar economic benefits from the proposed improvements are anticipated. Additionally, the proposed project will enhance the pedestrian activity and safety, and provide a more attractive gateway into the Villages of River Forest and Forest Park.

The total cost of the project is $1,833,260. The local share of the project is $492,652 which will be split in half with the Village of Forest Park. Funding for the project is contingent on the award of the grant from IDOT. Notification is anticipated in Q1 CY 2013.

Program Alternative
Because the project is based on the award of a grant, there are no other reasonable project alternatives at this time.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Street Improvement Program	2014	$165,240	MFT & W&SF
	2015	$545,400	MFT & W&SF
	2016	$561,600	MFT & W&SF
	2017	$318,600	MFT & W&SF
	2018	$318,600	MFT & W&SF

X Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost

N/A

Spending History	**MFT/GF**	**W&SF**	**Total**
2012-13	$283,860	$115,369	$399,229
2011-12	$438,531	$205,899	$644,430
2010-11	$254,325	$80,275	$334,600
2009-10	$293,321	$52,794	$346,115
2008-09	$520,592	$184,419	$705,011

Program Description & Justification

The purpose of this program is to improve the condition of local streets. The objective is to improve all streets with condition ratings of "Fair" or "Poor" to condition ratings of "Good" to "Excellent." This program does not include capital improvements on state routes.

Each year, Village Staff visually inspects all local streets and rates them according to the condition of the pavement, curb and gutters, and drainage. Streets rated "Poor" or "Fair" are prioritized for one of the construction options (rehabilitation, resurfacing, or reconstruction) or the microsurfacing maintenance option depending on their condition, location, and estimated traffic volumes. The timing in improving streets is critical. Waiting too long to address some streets in the poor to fair condition will result in the condition deteriorating to a point where a more expensive reconstruction will be necessary versus a resurfacing.

In addition, as the Village improves streets such that they are in the good to excellent condition, the need for a regular maintenance program of crack filling, patching and curb and gutter repairs is necessary. Such a maintenance program is intended to keep water from entering the pavement base section which is the main cause for pavement failure. Implementing such a maintenance program will extend the life of the improvement.

The following tables summarize the street rating systems:

Streets		
Surface Condition	**Pavement Ranking**	**Estimated Remaining Life**[1]
Excellent	7.6 – 9.0	15 to 20 years
Good	6.1 – 7.5	10 to 15 years
Fair	4.6 – 6.0	6 to 10 years
Poor	1.0 – 4.5	2 to 5 years

[1] Life estimate is based upon time frame needed for resurfacing assuming a regular maintenance program.

2013-14 Streets Recommended for Repair

Street	Pavement Rating
1. Central Avenue from Park Avenue to Lathrop Avenue	Fair
2. Hawthorne Avenue from Thatcher Ave to Keystone Ave	Good/Fair

If design engineering is completed in-house in FY 14, total proposed project amount will be reduced by $12,240.

Streets Recommended for Repair in FY 15 and FY 16:

The following streets, all located north of Division Street, have condition ratings of "Fair":

FY 15: Franklin Avenue from Division Street to North Avenue
Ashland Avenue from Greenfield Street to North Avenue
Jackson Avenue from Greenfield Street to North Avenue
Clinton Place from LeMoyne Street to North Avenue

FY 16: Monroe Avenue from Division Street to North Avenue
William Street from Division Street to Greenfield Street
Jackson Avenue from Division Street to Berkshire Street
Berkshire Street from Lathrop Avenue to William Street

Although these streets have possessed condition ratings of "Fair" and are continuing to deteriorate towards the "Poor" condition rating, their resurfacing has been deferred until the Village decides whether to pursue a sewer improvement project that could affect several or all of the streets located north of Division Street. If the Village decides to pursue a comprehensive sewer project, then these streets will be resurfaced subsequent to the completion of sewer improvements on each street. If the Village decides to defer such sewer improvements, then the resurfacing of these streets should be prioritized in the coming fiscal years.

The Capital Improvement Plan propose funding for street improvements in FY 17 and FY 18, however streets needing improvement have not been determined in those fiscal years.

Program Alternative
Not performing any roadway maintenance, particularly for streets in "Poor" condition, will result in total pavement failure and require reconstruction (of base and surface) which is significantly higher in cost compared to resurfacing.

Extensive pavement patching may be somewhat cost effective initially for streets with a "Fair" condition rating, and may slow down the progression of potholes, but the pavement patching needs will be ongoing and likely promote the continued deterioration of the street's base that will significantly increase eventual resurfacing costs.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Vehicles – Five Year Capital Improvement Program

The Village of River Forest recognizes the importance of maintaining, replacing and purchasing new vehicles to guarantee public safety and the efficient delivery of services. The following is a breakdown of current vehicular levels for all vehicles owned by the Village and the replacement schedule for 2014:

Department	Number of Vehicles to be Replaced in FY 2014	Cost of Vehicles to be Replaced in FY 2014	Total Number of Vehicles in Fleet
Fire	1	$650,000	9
Public Works	1	$35,000	11
Police	2	$77,160	17
Building	0	$0	2
TOTAL	**4**	**$762,160**	**39**

In 2012, the Police squad car replacement cycle was changed such that two squads are replaced annually instead of replacing six squads at one time.

Financing

Projects in this section are financed through the Capital Equipment Replacement Fund (CERF).

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law.

Critical projects are highlighted in yellow.

Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.

Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Vehicle Summary

Vehicle Replacement	2014	2015	2016	2017	2018	Five Year Total
Public Works	35,000	184,000	225,000	38,000	318,500	800,500
Police	77,160	143,090	81,018	122,093	135,345	558,706
Fire	650,000	244,000	-	575,750	-	1,469,750
Total	**762,160**	**571,090**	**306,018**	**735,843**	**453,845**	**2,828,956**

Proposed Financing	2014	2015	2016	2017	2018	Five Year Total
CERF-General Fund	762,160	571,090	261,018	697,843	435,345	2,727,456
CERF-Water and Sewer	-	-	45,000	38,000	18,500	101,500
Total	**762,160**	**571,090**	**306,018**	**735,843**	**453,845**	**2,828,956**

Five Year Capital Improvement Program
Public Works Vehicle Summary

Public Works Department	Vehicle Make & Model	Year	Vehicle #	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Dump Truck with Chipper Box	International 4000 Series	2001	31	1	Critical	35,000	-	-	-	-	35,000	CERF
Street Sweeper	Elgin Pelican	2003	34	3	N/A	Replacement not Recommended ($175,000)						
Pick-up Truck w/ Dump Body	Ford F350 Super Duty	2006	33	6	Critical	-	57,000	-	-	-	57,000	CERF
Lage Int'l Dump Truck	International 4000 Series	2001	40	7	Critical	-	127,000	-	-	-	127,000	CERF
Lage Int'l Dump Truck	International 4000 Series	2002	30	8	Critical	-	-	130,000	-	-	130,000	CERF
Cargo Van	Dodge Sprinter	2006	64	9	Critical	-	-	45,000	-	-	45,000	W/S CERF
Skid Steer Loader	Bobcat 763	2000	N/A	10	Critical	-	-	50,000	-	-	50,000	CERF
Pick-Up Truck	Ford F350 Super Duty	2008	66	12	Critical	-	-	-	38,000	-	38,000	W/S CERF
Lage Int'l Dump Truck	International	2004	32	14	Critical	-	-	-	-	150,000	150,000	CERF
Aerial Truck	International 4400	2003	46	16	Critical	-	-	-	-	150,000	150,000	CERF
Pick-Up Truck (Engineering)	Ford Ranger Super	2007	62	17	Recommended	-	-	-	-	18,500	18,500	W/S CERF
Total						**35,000**	**184,000**	**225,000**	**38,000**	**318,500**	**800,500**	

Proposed Financing

		2014	2015	2016	2017	2018	Five-Year Total
CERF-General Fund		35,000	184,000	180,000	-	300,000	699,000
CERF-Water and Sewer		-	-	45,000	38,000	18,500	101,500
Total		**35,000**	**184,000**	**225,000**	**38,000**	**318,500**	**800,500**

Dump Truck #31 (w/Chipper Box) 2014 $35,000 CERF

Make	International
Model	4000 SERIES
Year	2001
Cost	$59,633
Purchased	FY 99-00
Useful Life	12 yrs
Current Life	14 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Operations Division use this truck. The vehicle is equipped with an 11' dump body and chipper box, 11' power angling snowplow, emergency lighting, and two-way radio.

Total Vehicle Miles	27,135 (As of October 26, 2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
Dec-12	Front end and suspension parts	$3,250 (pending)	Ongoing

The dump body is in fair-poor condition with significant rust in the bed and the driver's side door is starting to develop metal fatigue cracks around the locking mechanism. The tailgate linkage is also rusted and does not operate properly. Pictures of rust forming in the dump body:

Project Alternatives

Dump truck #41 was replaced during FY 12. The dump truck it replaced (1998 International) is slated for disposal as surplus property at the conclusion of the 2012 leaf collection program.

Recognizing that both of the Village's Packer trucks (used for leaf removal) are in mechanically poor condition and are currently for sale as surplus property, staff reevaluated the Village's leaf collection program and determined that hauling leaves utilizeing the dump truck fleet is the most operationally efficient means for collecting and transporting leaves. As a result, staff recommends disposing of #31 and rehabilitating the larger tandem axel dump truck (old #41) based on the following reasons:

1. Although the cab and chassis in old #41 is in good operating condition, the dump body is rusted with significant deterioration and the primary reason it was replaced in FY 12.
2. Old #41 is a tandem axle truck and can transport a larger, heavier load compared to truck #31 which is a single axle dump truck.
3. The dump body on old #41 is approximately 2 feet longer and has higher sides compared to #31.
4. It is expected that truck #31 could be sold at public auction as surplus property for approximately $10,000-$15,000.

Staff recommends that the cab and chassis on dump truck #41 be reconditioned/refurbished along with replacing the dump body and some of the hydraulic controls. Costs associated with these improvements are as follows (CERF Expenditures):

- $7,000-Cab and chassis recondition/refurbish
- $25,000-Replace dump body (which includes chipper box)
- $3,000-Update hydraulic plow and body controls

Cost Comparison:

- Sale of truck #31: $10,000-15,000
- Reconditioned old #41: $35,000
- Compared to the purchase of a new dump truck: $120,000

This alternative would allow Public Works to maintain two tandem axle dump trucks in the fleet and would extend the life of the old truck #41(which would become new #31) by approximately 7 years (replacement in FY 21). This is approximately half of the life cycle of a new dump truck. It is estimated that replacement of the reconditioned dump truck will cost approximately $145,000 in FY 21. Public Works has a number of dump trucks scheduled for replacement in the coming 2-3 fiscal years and this alternative will help spread out the replacement cycles of the dump truck fleet.

Operational Impact

This unit is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations. The vehicle is also used as a chipper truck for tree operations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Street Sweeper #34

Replacement not Recommended

Make	Elgin
Year	2003
Purchase Cost	$124,212
Purchased	FY 02-03
Useful Life	10 yrs
Current Life	11 yrs

Vehicle Description

This is the only vehicle in the Village's fleet that sweeps Village streets and State routes. State routes are swept in accordance with the intergovernmental street maintenance agreement with the Illinois Department of Transportation.

The street sweeper performs an important functions as it removes various debris (leaves, twigs, garbage, etc.) from Village streets and prevents such debris from entering into the Village's combined sewer system along with improving the aesthetics appearance of the Village. By removing debris from Village streets and keeping it out of the Village's sewer system, street sweeping ultimately prevents debris from being discharged into the Des Plaines River during combined sewer overflow events.

Total Equipment Hours/Miles	5,843/22,862 (As of October 26, 2012)

Breakdowns for Last 2 Years

Date	Cause of Breakdowns	Cost	Repair Time
April-10	New hydraulic motor	$638	2 days
May -10	Replaced steering shaft – guide wheel fell off	$8,582	14 days
Nov-11	New conveyor belt	$650	1 Day
Mar-12	Fuel tank straps	$100	3 Days
Jun-12	New tires and new broom mandrel	$1,900	1 Day
Aug-12	New fuel tank	$700	1 Day
Sep-12	Numerous repairs (conveyor belt, bearings, variable shields)	$8,500	21 Days
	Total	$21,070	43 days

Project Alternative

The Village's street sweeper, subsequent to the completion of the most recent repairs, is considered to be in good operating condition. After considering the frequency and magnitude of repairs made to the sweeper since 2010, the age of the unit, and the significant costs associated with purchasing a new sweeper, Staff explored alternatives for continuing the Village's street sweeping program. These alternatives include:

1. Continue to use Village's sweeper and pay for repairs on an as-needed basis until complete break-down, deferring its replacement.
2. Sell the Village's sweeper as surplus property and outsource all street sweeping (cost summary below) - estimated sale price for current sweeper via public auction is $10,000-$12,000
3. Outsource routine Village-wide sweeping and keep Village's sweeper for special sweepings - after storm events, after conclusion of leaf season, before/after special events, cleanup after accidents, etc.
4. Lease street sweeper from area dealership (or perhaps another municipality) and utilize Village employees to operate sweeper
5. Jointly purchase sweeper with area municipality (Village of Forest Park has relatively new sweeper, Village of Oak Park contracts routine sweeping along with maintaining an in-house sweeping program)
6. Exchange public services and use of equipment with area municipalities

If the Village were to purchase a new sweeper in 2014 at an estimated purchase price of $175,000, at a 2.5% inflation rate, the estimated replacement cost after 10 years would be $224,000. Therefore, the sweeper would require an annual CERF transfer of $22,400 over the next ten years. This contemplates a 10-year life cycle. However, the Village's historically heavy use of the sweeper creates a life cycle closer to 8 years. Reducing the life cycle to 8 years creates an estimated purchase price of $213,200 with an annual CERF transfer of $26,600.

Staff solicited three estimates for contracted street sweeping. These estimates are for 12 Village-wide sweeps which is the approximate number of sweeps completed in-house each year (disposal of sweeping debris is the Village's responsibility):

Roy Strom Co.:	$3,333 x 12 = $40,000
Hoving Clean Sweep:	$3,505 x 12 = $42,060
Elgin Sweeper:	$4,500 x 12 = $54,000

After further analysis of street sweeping operations, Staff has determined that six monthly Village-wide sweeping events (at an estimated cost of $3,750 for each event) from April to September would be appropriate for maintaining clean streets. By performing these routine Village-wide sweeps contractually, the Village could retain its sweeper and any additional sweeping events (reference those listed in item #3 above) would be performed by Public Works.

The following table summarizes costs associated with this scenario compared to purchasing a new sweeper and maintaining an in-house program:

	Contractual	In-House
Annual Routine Sweeping Costs	$22,500	$0
Annual Operating & Maintenance Costs (fuel $1,500; brooms & brushes, & other parts $4,000)	$500	$5,500
Estimated Costs for Breakdowns & Repairs	$500	$1,000
CERF Transfer	$0	$22,400
Total	$23,500	$28,900

Disposal costs were not included in this table as the Village is responsible for all costs (approximately $11,000 in FY 12), regardless of the option selected.

Staff recommends the following:

1. Outsource routine Village-wide street sweeping on a monthly basis from April to September.
2. Retain the Village's sweeper #34 as a fully depreciated vehicle, remove it from CERF, and utilize for supplemental sweeping (leaves, special events, storms, accidents, etc.).

The outsourcing in FY2014 will be done on a trial basis and the Village will continue to make a CERF contribution for replacement of the Street Sweeper in the 2014 Budget. This will allow for replacement of the sweeper in FY2015 should the Village determine that outsourcing this service has not met service level expectations.

Staff will continue to explore other options such as joint purchasing and sharing with area municipalities. Although there are advantages and disadvantages to these options, one potential disadvantage is that after leaf collection programs and storm events there is a mutual need/demand for the unit during the same time period.

Operational Impact

The operational impact would be minimal as the Village would maintain its ability to perform in-house street sweeping on an as-needed or emergency basis along with routine street sweeping contractually.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$5,400 savings	See table above

Pickup Truck #33

2015 $57,000 CERF

Make	Ford
Model	F350 Super Duty
Year	2006
Purchase Cost	$36,028
Purchased	FY 06-07
Useful Life	8 yrs
Current Life	7 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Operations Division operate this truck. The vehicle is equipped with an 8' stainless steel dump body, v-box salt spreader, 9' power angling snowplow, emergency lighting, and two-way radio. This vehicle is used to plow alleys and parking lots throughout the Village during snow removal operations.

Total Vehicle Miles	10,164 (As of October 26, 2012)

Breakdowns for Last 2 Years

No breakdowns in past 2 years.

Project Alternative

The alternative is to delay the purchase and reschedule during later years.

Operational Impact

This is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations. This unit is used for other operations (hauling materials) which would also be impacted if it were removed from the fleet.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Dump Truck #40

2015 $127,000 CERF

Make	International
Model	4000 SERIES
Year	2001
Purchase Cost	$66,399
Purchased	FY 00-01
Useful Life	12 yrs
Current Life	13 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Operations Division use this truck. The vehicle is equipped with an 11' dump body, 11' power angling snowplow, dump body tarp, emergency lighting, and two-way radio. The dump body on this vehicle is in fair condition and has rust holes in the floor of the bed.

Total Vehicle Miles	36,590 (As of October 26, 2012)

Breakdowns for Last 2 Years

No breakdowns in past 2 years.

Project Alternative

The alternative is to delay the purchase and reschedule during later years.

Operational Impact

This is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations. This unit is used for other operations (hauling materials) which would also be impacted if it were removed from the fleet.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Dump Truck #30 2016 $130,000 CERF

Make	International
Model	4000 SERIES
Year	2002
Purchase Cost	$67,350
Purchased	FY 01-02
Useful Life	12 yrs
Current Life	12 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description
Various personnel in the Operations Division operate this truck. The vehicle is equipped with a 11' dump body, stainless steel v-box salt spreader (with manual controls), liquid salt pre-wetting system, 11' power angling snowplow, dump body tarp, emergency lighting, and two-way radio.

Total Vehicle Miles	24,639 (As of 10/26/2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
July-2012	New alternator	$230	1 Day

Project Alternative
The alternative is to delay the purchase and reschedule during later years.

Operational Impact
This is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations. This unit is used for other operations (hauling materials) which would also be impacted if it were removed from the fleet.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Cargo Van #64

2016 $45,000 W/S CERF

Make	Dodge
Model	Sprinter Cargo Van
Year	2006
Purchase Cost	$32,088
Purchased	FY 05-06
Useful Life	10 yrs
Current Life	8 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Water Division use this cargo van. The vehicle is equipped with emergency lighting, a 2000 watt AC converter and two-way radio.

Total Vehicle Miles	23,790 (As of 10/26/2012

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
July-2011	New tires, brakes	$650	1 day

Project Alternative

The alternative is to delay the purchase and reschedule during later years.

Operational Impact

Used by the Water Department to carry all tools and equipment needed for water meter installations, meter reading, fire hydrant repairs, and water main breaks.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Skid-Steer Loader 2016 $50,000 CERF

Purchase Cost $28,154
Purchased FY 99-00
Useful Life 12 yrs
Current Life 14 yrs

X Critical
- Recommended
- Contingent on Funding

Equipment Description

The Village's skid-steer loader is a versatile unit that allows Public Works personnel to load and relocate various materials and for plowing sidewalks during snow removal. The Village owns the following attachments for this unit:

Attachment	Function
Bucket	Loading various materials such as sand, stone, and topsoil
Broom	Sweeping
Forks	Loading/unloading pallets and other large/heavy items concrete
Beaker	Water and sewer main repairs
V-plow	Plowing snow on sidewalks

The Village also owns a flat-bed trailer that is used to transport the skid-steer loader when it is used on projects that are located a significant distance from the Public Works Garage.

Total Equipment Hours	1,612 (As of 10/26/2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
May-11	Suction tube in fuel tank	$100	1 Day

Project Alternative
Since the skid-steer loader is in good operating condition, Staff recommends allocating $3,000 in the FY 14 operating budget to perform comprehensive service on the unit by a factory authorized repair facility defer its replacement to FY 16.

Operational Impact

Not having the Skid Steer fully operational greatly reduces the Village's ability to load/move materials, repair water and sewer mains, and plow some of the Village's public sidewalks.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Pickup Truck #66 2017 $38,000 W/S CERF

Make	Ford
Model	F350 Super Duty
Year	2008
Purchase Cost	$26,403
Purchased	FY 08-09
Useful Life	8 yrs
Current Life	5 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Water Division use this pickup truck to respond to water service calls, JULIE locates, water system emergencies. This truck is equipped with emergency lighting, a two-way radio, and an 8 ½-foot angling snowplow (truck is a backup during snow plowing operations). This pickup has had numerous engine and emission control problems. It is expected to continue to be a high maintenance vehicle and should be replaced as soon as possible.

Total Vehicle Miles	21,276 (As of 10/26/2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
July-2012	Emission control components	Warranty	10 Days
July 2011	Emission control components	Warranty	7 Days
May 2011	Emission control components	Warranty	7 Days

Project Alternative

The alternative is to delay the purchase and reschedule during later years.

Operational Impact

This is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations. The vehicle is also equipped to assist the Village during its leaf operations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Dump Truck #32 (w/ conveyor dump body) 2018 $150,000 CERF

Replacement Year	FY 18
Make	International
Year	2004
Purchase Cost	$93,455
Purchased	FY 03-04
Useful Life	12 yrs
Current Life	10 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description

Various personnel in the Operations Division operate this truck. The vehicle is equipped with a liquid salt pre-wetting system, computerized ground sensing salt application system, 11' power angling snowplow, dump body tarp, emergency lighting, and two-way radio. Vehicle is also equipped with a 9' walking floor dump body.

Total Vehicle Miles	18,001 (As of 10/26/2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
Sept-2010	Change conveyor belt, new bearings, new hydraulic lines	$1,500	2 days

Project Alternative

The alternative is to delay the purchase and reschedule during later years. The current configuration limits the vehicle's ability to haul some materials as the dump body is constructed in the shape of a v-box with a conveyor "belt" system down the center of the dump body. Staff recommends that the new vehicle have a separate V-box and standard dump body.

Operational Impact

This is one of ten primary snow plowing vehicles in the Village's snow and ice control fleet. A breakdown reduces the Village's snow removal response by a tenth and extends the time needed to complete snow removal operations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Aerial Truck #46

2018 $150,000 CERF

Make	International
Model	4400
Year	2003
Purchase Cost	$83,336
Purchased	FY 02-03
Useful Life	15 yrs
Current Life	11 yrs

X Critical
\- Recommended
\- Contingent on Funding

Vehicle Description
Various personnel in the Operations Division use this aerial truck. The vehicle is equipped with a 55' working height utility bucket, emergency lighting, and two-way radio. The vehicle is used for tree trimming, streetlight maintenance, traffic signal maintenance, and installing holiday decorations.

Total Vehicle Miles	11,164 (As of October 26, 2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
June-2012	Misc. repairs	$2,200	1 Day

Project Alternative
The alternative is to delay the purchase and reschedule during later years.

Operational Impact
This vehicle is the only aerial bucket truck in the fleet. Its primary use is tree trimming and streetlight maintenance and its secondary uses include building maintenanc and assisting the Village with holiday decorating.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Pickup Truck #62 (Engineering) 2018 $18,500 W/S CERF

Make	Ford
Model	Ranger Super
Year	2007
Purchase Cost	$13,455
Purchased	FY 07-08
Useful Life	10 yrs
Current Life	6 yrs

- \- Critical
- X Recommended
- \- Contingent on Funding

Vehicle Description

Personnel in the Engineering Division use this vehicle. The vehicle is equipped with a pickup truck bed and is used to transport engineering equipment.

Total Vehicle Miles	16,334 (As of 10/26/2012)

Breakdowns for Last 2 Years

Breakdown Date	Cause of Breakdowns	Cost of Breakdowns	Repair Time
Oct-2012	Replacement battery	$100	1 Day

Project Alternative

The alternative is to delay the purchase and reschedule during later years or utilize a police vehicle that has been refurbished.

Operational Impact

This unit is the primary vehicle for the Engineering Division with the Public Works Department. It is used to monitor the maintenance and inspection of projects as they occur within the Village.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Five Year Capital Improvement Program
Police Vehicle Summary

Police Department	Year	Vehicle #	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Patrol Car	2009	1	1	Recommended	38,580	-	-	41,474	-	80,054	CERF
Patrol Car	2009	6	3	Recommended	38,580	-	-	41,474	-	80,054	CERF
Chief's Vehicle	2006	17	5	Recommended	-	30,000	-	-	-	30,000	CERF
Patrol Car	2011	2	7	Recommended	-	43,545	-	-	45,474	89,019	CERF
Patrol Car	2009	5	8	Recommended	-	39,545	-	-	42,511	82,056	CERF
Community Service Officer	2007	10	9	Recommended	-	30,000	-	-	-	30,000	CERF
Patrol Car	2011	3	10	Recommended	-	-	40,509	-	-	40,509	CERF
Evidence Tech/Patrol Car	2009	4	11	Recommended	-	-	40,509	-	-	40,509	CERF
Detective/Surveillance	2011	12	12	Recommended	-	-	-	39,145	-	39,145	CERF
Unmarked Surveillance	2013	13	13	Recommended	-	-	-	-	47,360	47,360	CERF
Patrol	2009	7		N/A	These vehicles are replaced with used police vehicles.					-	
Patrol	2006	8		N/A						-	
Crime Prevention- Tahoe	2005	9		N/A						-	
Deputy Chief's Vehicle	2006	11		N/A						-	
Admin Pool Vehicle	2000	14		N/A						-	
Ford Explorer-To be sold	1999	15		N/A						-	
School Vehicle	2005	16		N/A						-	
Total					**77,160**	**143,090**	**81,018**	**122,093**	**135,345**	**558,706**	

Proposed Financing

		2014	2015	2016	2017	2018	Five-Year Total
CERF-General Fund		77,160	143,090	81,018	122,093	135,345	558,706
Total		**77,160**	**143,090**	**81,018**	**122,093**	**135,345**	**558,706**

Police – Vehicles

Marked Squad Car			
Squad 1	2014	$38,580	CERF
	2017	$41,474	CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Crown Victoria
Year	2009
Cost	$33,860
Useful Life	3 yrs
Current Life	3 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification

An estimated cost of $38,580 to replace Squad #1. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components. The current mileage is 54,000 (as of 10/1/12). The average monthly miles driven is 1,000. Anticipated in-service date is September 2013.

Vehicle Description

This vehicle is a marked squad car used for daily patrol activities. The unit is equipped with laptop computers, moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, and video equipment, will be removed and reinstalled in the new cars. This vehicle will be kept in the fleet as a secondary line vehicle to be used for crime prevention or back-up patrol vehicle.

Breakdown/Repairs 2009-2012	
Number of Breakdowns/Repairs as of September 2012	33
Average Repair Cost	$159.51

Project Alternative

Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact

These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Marked Squad Car			
Squad 6	2014	$38,580	CERF
	2017	$41,474	CERF

Estimated mileage at time of replacement: 109,660

Make	Ford
Model	Crown Victoria
Year	2009
Cost	$33,860
Useful Life	3 yrs
Current Life	3 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification

An estimated cost of $38,580 to replace Squad #6. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components. The current mileage is 88,476 (as of 10/1/12). The average monthly miles driven is 1,932. Anticipated in-service date is September 2013.

Vehicle Description

The recommended replacement model is a Ford Explorer. This vehicle would serve as a multi-purpose utility vehicle for deploying the speed trailer, and carrying evidence technician equipment. It will also accommodate the taller officers who have trouble fitting into the Ford Taurus. This vehicle will be a marked squad car also used for daily patrol activities. The unit is equipped with laptop computers moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, video equipment will be removed and reinstalled in the new cars. The condition of this vehicle will be analyzed when they are removed from service to determine if they are suitable to be rotated to another department for administrative use, or if they should be disposed of at auction.

Breakdown/Repairs 2009-2012	
Number of Breakdowns/Repairs as of Sept. 2012	52
Average Repair Cost	$374.00

Project Alternative

Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact

These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Chief's Vehicle 2015 $30,000 CERF

Estimated mileage at time of replacement: 80,000

Make	Dodge
Model	Charger
Year	2006
Cost	$27,000 (includes equipment/installation)
Useful Life	6 yrs
Current Life	7 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification

An estimated cost of $30,000 to replace the Chief's vehicle. The estimated cost of the vehicle incorporates $5,000 for equipment and installation, which includes, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components. This vehicle replacement was deferred for one year. The Chief adopted the detective's vehicle due to it's low mileage and the Deputy Chief was given the Chief's higher mileage vehicle. At the time of replacement estimated mileage will be 80,000. The Chief will pass down the Dodge Charger to the Deputy Chief upon replacement.

Vehicle Description

It is anticipated that the Chief's replacement vehicle will be a Ford Explorer PUV. The Ford Explorer (base price $24,558) is less expensive than the base price ($27,128) of the Ford Taurus PPV(the replacement for the Ford Crown Victoria). The AWD Ford Explorer has a similar MPG (16/28 MPG) to the Ford Taurus (19/29) and will have the fuel efficient "EcoBoost" motor available in the 2014 model.

Breakdown/Repairs 2006-2012	
Number of Breakdowns/Repairs as of Sept. 2012	27
Average Repair Cost	$181.71

Project Alternative

As the vehicle ages the repair costs will increase which is not desirable with a fixed maintenance budget. This vehicle will maintain the 6 year replacement schedule.

Operational Impact

Although this vehicle is not used as extensively as the front line squad cars, it is used to respond to emergencies and therefore should be in good operational condition.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
No increase in annual budget anticipated.	None

Marked Squad Car

Squad 2	2015	$43,545	CERF
	2018	$45,474	CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Crown Victoria
Year	2011
Cost	$34,000
Useful Life	3 yrs
Current Life	2 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $38,580 to replace Squad #2. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components. This vehicle will also be equipped with the Department's automated license plate reader system (ALPR). The additional cost for squad 2 is due to the transfer of the ALPR system to the new squad.

Vehicle Description
This vehicle is a marked squad car used for daily patrol activities. The unit is equipped with laptop computers, moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, and video equipment, will be removed and reinstalled in the new cars. This vehicle will be kept in the fleet as a secondary line vehicle.

Project Alternative
Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Marked Squad Car			
Squad 5	2015	$39,545	CERF
	2018	$42,511	CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Crown Victoria
Year	2011
Cost	$34,000
Useful Life	3 yrs
Current Life	2 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $38,580 to replace Squad #5. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This vehicle is a marked squad car used for daily patrol activities. The unit is equipped with laptop computers, moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, and video equipment, will be removed and reinstalled in the new cars. This vehicle will be kept in the fleet as a secondary line vehicle to be used for crime prevention or back-up patrol vehicle.

Project Alternative
Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Community Service Vehicle
Squad 10 2015 $30,000 CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Ranger Pick-Up
Year	2007
Cost	$22,500
Useful Life	7 yrs
Current Life	6 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $30,00 to replace unit #10. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This vehicle is a marked Pick-up truck used for daily Community Service activities. The unit is equipped with a laptop computer and zebra printer. The Community Service Vehicle is used for daily parking violations, stray animal, large equipment transport and deploying the Speed Trailer. Depending on the condition of the vehicle at replacement time, this vehicle could be offered to Public Works as a replacement for their current pick-up truck used by the engineer department or offered for sale at auction.

Project Alternative
Due to the nature of the use, deferral beyond it's estimated seven year useful life is not recommended for a CSO vehicle. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
Breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to parking complaints of , and perform other routine activities.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Marked Squad Car
Squad 3 2016 $40,509 CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Taurus
Year	2013
Cost	$34,000
Useful Life	3 yrs
Current Life	3 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $40,509 to replace Squad #2. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This vehicle is a marked squad car used for daily patrol activities. The unit is equipped with laptop computers, moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, and video equipment, will be removed and reinstalled in the new cars. This vehicle will be kept in the fleet as a secondary line vehicle to be used for crime prevention or back-up patrol vehicle.

Project Alternative
Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Marked Squad Car
Squad 4 2016 $40,509 CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Taurus
Year	2013
Cost	$34,000
Useful Life	3 yrs
Current Life	3 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $40,509 to replace Squad #2. The estimated cost of the vehicle incorporates $8,000/car for equipment and installation, which includes exterior Police markings, light emitting diode light bar, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This vehicle is a marked squad car used for daily patrol activities. The unit is equipped with laptop computers, moving radar units and forward facing video cameras. As the vehicles are rotated out of the fleet, the laptops, radars, and video equipment, will be removed and reinstalled in the new cars. This vehicle will be kept in the fleet as a secondary line vehicle to be used for crime prevention or back-up patrol vehicle.

Project Alternative
Due to the nature of the use, deferral beyond three years is not recommended for patrol vehicles. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
These cars are used extensively for patrol activities, so breakdowns have a direct impact on the department's ability to respond to requests from residents, provide traffic control, respond to complaints of criminal activity, and perform routine investigations.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Ford F150 Detectives Vehicle
Squad 12 2017 $39,145 CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Explorer PUV
Year	2011
Cost	$34,037
Useful Life	5 yrs
Current Life	2 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $39,145 to replace unit #12. An estimated cost of the vehicle incorporates an all wheel drive (AWD) Pick-up Truck, $8,000 for covert equipment and installation, including hidden light emitting diode (LED)emergency lights, radio antennae's, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This is an unmarked detective unit used daily for tactical patrol and covert surveillance The unit is equipped with a laptop computer and car radios, and a secure storage vault in the pick-up bed. Depending on the condition of the vehicle at replacement time, this vehicle could be offered to Public Works as a replacement for their department or offered for sale at auction.

Project Alternative
Due to the nature of the use, deferral beyond it's estimated life is not recommended for a tactical vehicle. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
Breakdowns have a direct impact on the department's ability to respond to and investigate criminal activity.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Ford Explorer PUV
Squad 13 2018 $47,360 CERF

Estimated mileage at time of replacement: 75,000

Make	Ford
Model	Explorer PUV
Year	2013
Cost	$22,500
Useful Life	5 yrs
Current Life	1 yrs

[ ] Critical
[X] Recommended
[ ] Contingent on Funding

Project Description & Justification
An estimated cost of $47,360 to replace unit #13. An estimated cost of the vehicle incorporates an all wheel drive (AWD) SUV, $8,000 for covert equipment and installation, including hidden light emitting diode (LED)emergency lights, radio antennae's, and miscellaneous items needed to facilitate the installation of major components.

Vehicle Description
This is an unmarked police unit used daily for tactical patrol and covert surveillance The unit is equipped with a laptop computer and car radios. Depending on the condition of the vehicle at replacement time, this vehicle could be offered to Public Works as a replacement for their engineer department or offered for sale at auction.

Project Alternative
Due to the nature of the use, deferral beyond it's estimated life is not recommended for a tactical vehicle. The reliability decreases as age increases, and maintenance and repair costs often increase.

Operational Impact
Breakdowns have a direct impact on the department's ability to respond to and investigate criminal activity.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Five Year Capital Improvement Program
Fire Vehicle Summary

Fire Department	Year	Vehicle #	Page	Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Ladder Truck	1981	221	1	Critical	650,000	-	-	-	-	650,000	CERF
Chief's Vehicle	2007	200	3	Recommended	-	23,000	-	-	-	23,000	CERF
Ambulance	2006	214	5	Recommended	-	186,000	-	-	-	186,000	CERF
Administrative Vehicle	2006	218	7	Contingent	-	35,000	-	-	-	35,000	CERF
Pumper	1992	226	9	Critical	-	-	-	550,000	-	550,000	CERF
Deputy Chief's Vehicle	2011	201	11	Contingent	-	-	-	25,750	-	25,750	CERF
Pumper	2001	222			Scheduled for replacement in 2022					-	
Ambulance	1999	224			Vehicle is a reserve unit replaced with Ambulance #214					-	
Pool Vehicle	1999	299			Vehicle replaced with Chief's Vehicle #200					-	
Aerial Truck (Shared)	2001	631			Truck is shared with and stationed at the Village of Oak Park					-	
Total					**650,000**	**244,000**	**-**	**575,750**	**-**	**1,469,750**	

Proposed Financing

	2014	2015	2016	2017	2018	Five-Year Total
CERF- General Fund	650,000	244,000	-	575,750	-	**1,469,750**
Total	650,000	244,000	-	575,750	-	**1,469,750**

Truck – FD-221 2014 $650,000 CERF

Make	*Seagrave*
Model	*100'* Aerial
Year	1981
Cost	See Below
Useful Life	20 years front line Currently 32 years

X Critical
- Recommended
- Contingent on Funding

Vehicle Description

In 1999, the Village partnered with Oak Park to buy half ($247,000 plus half of the annual maintenance costs which are approximately $16,000) of a 100" aerial tower with the Village of Oak Park (placed in service in 2001). This piece of apparatus is housed in the Village of Oak Park. As part of the agreement, Oak Park's 1981 aerial truck was housed and utilized by River Forest (the current T-221).

T-221 is a 100' aerial, with a 300-gallon per minute fire pump, no water tank and a limited complement of fire hose, ladders and equipment. This vehicle does not meet National Fire Protection Association (NFPA) 1901 standards for apparatus due to the lack of hose and serviceable ground ladders, along with non-existent safety devices on the turntable and aerial ladder. The Village was receiving limited credit through the Insurance Services Office (ISO) for an aerial truck due to the lack of pump capacity and age of the vehicle.

Due to safety concerns, the Fire Department took T-221 out of service in late 2012. As such, the Fire Department does not have any serviceable ladder truck to reach the top of some second story residential units or many of the Village's multi-family dwellings. In order to provide sufficient fire rescue services, a ladder truck is essential to the Village's Fire Department fleet.

To better serve River Forest, the Fire Department recommends the purchase of a 'Quint' as it will greatly enhance fire response in the staging of emergency equipment throughout the Village. The recommended unit carries hose, water, ground ladders, has a 1500 GPM pump and 75' aerial device. The vehicle will have a single rear axle, thereby allowing it to maneuver into tighter spaces typical of River Forest lots and the universities.

This vehicle is also designed to operate as an Advance Life Support (ALS) non-transport vehicle. It will respond with firefighter/paramedics to emergency medical calls and provide service to a patient or victims prior to the arrival of a transport ambulance. This allows the Fire Department to handle multiple calls in our community.

Project Alternative

Staff has evaluated numerous alternatives to purchasing a Quint, including the option to not purchase a new piece of apparatus (thereby eliminating a Ladder Truck from the fleet), to utilize apparatus in neighboring communities and to purchase a used Ladder Truck or Quint. Following this review, it is Staff's recommendation that the Village's best, option in order to provide sufficient fire rescue services, is to purchase a Quint. This will allow the Village to defer replacement of Pumping Engine 222 from 2014 to 2017 (Engine 222 was previously scheduled to be replaced in 2012 and subsequently deferred to 2014 at a cost of $475,000).

For the past eight (8) years, the Fire Department has unsuccessfully applied for a grant for the purchase of a Quint It does not appear likely that the Village will be awarded a grant in 2014.

Operational Impact

The replacement of this vehicle will be positioned in front line service, replacing a 32 year old vehicle. Improvements enhance the Fire Department's emergency response within the community by utilizing a more versatile piece of equipment. Additional pump capacity is a benefit when viewed by ISO and the shorter wheel base gives the operators the ability to maneuver in tighter locations, such as the university complexes and deeper setback residential properties.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
$1,500	Oil & filter changes (2) and ladder tests (aerial and ground) annually. This is currently budgeted.

Administrative Vehicle –C200 2015 $23,000 CERF

Make	FORD
Model	Crown Victoria
Year	2006
Cost	$23,145
Useful Life	6 years 4 years fleet (training & pool) car.
Current Life	7 yrs

\- Critical
X Recommended
\- Contingent on Funding

Vehicle Description

C200 is the administrative vehicle assigned to the Fire Chief. The vehicle is purchased through the State of Illinois Central Management Service (CMS) program or at a local dealer that will match the cost in the State Purchasing program. This vehicle is outfitted with emergency lights and siren for emergency response and administrative function.

Vehicle	Year	Date	Road Mileage
C-200	2006	11/12	80,800 as of 11/01/2012

C-200 Breakdown/Repairs Past 3.5 Years	
Number of Breakdowns/Repairs	11
Repair Cost	$1,888

Project Alternative

- Purchase an all-wheel drive SUV to place in service for severe weather conditions. This provides better traction ability during response in extreme weather conditions (4 wheels vs. 2 wheel drive).
- Purchase a Hybrid, Electric or Natural Gas vehicle for fuel efficiency. This will require the installation of a refueling/recharging system.
- Maintain current vehicle for another year and re-evaluate next budget.

Operational Impact

This vehicle was originally scheduled for a five (5) year useful life that is extended to seven (7) years. This vehicle will be redeployed and replace a 1999 Ford Crown Victoria that is used for school & training travel and as an auxiliary vehicle in the Village fleet for other departments.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
None	None

Ambulance –214 2015 $186,000 CERF

Make	FORD F-450
Model	Wheeled Coach
Year	2006
Cost	$119,500
Useful Life	8 years 2 years fleet (place in shared reserve)
Current Life	7 yrs

- Critical
X Recommended
- Contingent on Funding

Vehicle Description

A-214 is a Type III (van style front chassis) and serves as an Advance Life Support (ALS) transport vehicle. Staffed with two firefighter/paramedics, Ambulance 214 responds to an average of 1,000 EMS calls per year. This vehicle operates to treat and transport victims of accident and patients of illness to local hospitals. An innovative lifting system (Stryker Power System) is included in the cost of the new vehicle as an additional resource to minimize firefighter injuries due to bariatric (heavy) patients.

Vehicle	**Year**	**Date**	**Road Mileage**
A-214	2006	11/12	34,112 as of 11/15/2012

A-214 Breakdown/Repairs Past 3 Years	
Number of Breakdowns/Repairs	
214	18
224 (Reserve Unit)	10
Repair Cost	
214	$7,924
224 (Reserve Unit)	$3,264

Project Alternative

- Eliminate the Stryker Power Lift system for a savings of $40,000.
- Maintain current vehicle for another year and re-evaluate next budget.

Operational Impact

This vehicle is in the 7th year of a planned 8 year useful life expectancy. The reserve ambulance is shared with the Village of Forest Park and the Village must maintain the frontline ambulance in working order so that each community has access to the reserve unit.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$1,000	Reduce maintenance on fleet by providing new, warranty driven apparatus, replacing older, costlier vehicle.

Administrative Vehicle –218 2016 $35,000 CERF

Make	FORD
Model	F-250
Year	2006
Cost	$30,000
Useful Life	8 years 2 years fleets (sell or move to pool vehicle.)
Current Life	6 yrs

- Critical
- Recommended

X Contingent on Funding

Vehicle Description

C218 is the administrative vehicle assigned to the Fire Prevention Bureau. This vehicle is purchased through the State of Illinois Central Management Service (CMS) program or at a local dealer that will match the cost in the State Purchasing program. This vehicle is four-wheel drive for extreme weather conditions, and is equipped with emergency lights and siren for emergency response. It has the ability to tow safety trailers, along with the Citizen Corp. CERT trailer. Additionally, this vehicle serves as the Incident Command vehicle in situations of disaster.

Vehicle	Year	Date	Road Mileage
C-218	2006	11/12	7,005 as of 11/15/2012

C-218 Breakdown/Repairs Past 2.5 Years	
Number of Breakdowns/Repairs	4
Repair Cost	$685.00

Project Alternative

- Purchase an all-wheel drive SUV to place in service for severe weather conditions. This provides better traction ability during response in extreme conditions (4 wheels vs. 2 wheel drive).
- Maintain current vehicle for another year and re-evaluate next budget.

Operational Impact

This vehicle was originally scheduled for an eight (8) year useful life. The vehicle will replace the current vehicle used by the Fire Prevention Bureau. The replaced vehicle can be utilized for school & training travel, and auxiliary vehicle in the Village fleet for other departments, or sold at auction.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
Normal reduction in maintenance costs.	Reduce maintenance on fleet by providing new, warranty driven apparatus, replacing older, costlier vehicle.

Pumper – FD-226 2017 $550,000 CERF

Make	Darley
Model	Pumper
Year	1992
Cost	$210,000
Useful Life	10 years front line + 10 years reserve.
Current Life	21 yrs

X Critical
- Recommended
- Contingent on Funding

Vehicle Description

E-226 is a 1,500-gallon per minute fire pumper with a 750-gallon water tank and a full complement of fire hose, ladders and equipment. This vehicle meets NFPA 1901 and Insurance Services Office (ISO) for a Class 'A' pumper. A Class 'A' pumper has the following pumping requirements: 100% pump capacity at 150psi, 70% capacity at 200psi, and 50% at 250 psi.

In 2002, the Village decided to improve efficiency and approved the purchase of E-222, a Class 'A' pumper with the addition of CAFS (compressed air foam system). With the introduction of a chemical foam concentrate, the frontline engine uses less water, which in turn allows firefighters to extinguish structure fires quicker and with less water damage. The replacement of -E226 (non-CAFS unit) will include the installation of CAFS to continue said efficiency.

In addition to the ISO requirements this vehicle is designed to operate as an Advance Life Support (ALS) non-transport vehicle. It will respond with firefighter/paramedics to emergency medical calls and provide service to patient or victims prior to the arrival of a transport ambulance. This allows the Fire Department to handle multiple simultaneous calls in the community. Currently E-222 (frontline engine) responds on an average of 5.2 calls per day.

Vehicle	Year	Date	Road Mileage	Engine Hours	Actual Mileage
E-226	1992	11/12	45,766	6,932	173,300
*Fire and EMS vehicles use a conversion of 25 miles per engine hour due to the on scene time at an emergency call.					

E 226 Breakdown/Repairs Past 3 Years	
Number of Breakdowns/Repairs	
226 (Reserve Unit)	7
222 (Frontline Unit)	23
Repair Cost	
226 (Reserve Unit)	$17,191
222 (Frontline Unit)	$22,897

Project Alternative

Evaluate State of Illinois loan programs, federal grants and lease / purchase programs. The Village may also delay the purchase of this vehicle and incur increased maintenance cost and increased out of service time (Because this unit is recommended to be further deferred from a 2014 replacement to 2017 with the purchase of a Quint, this option is not recommended).

Another alternative is to sell this vehicle and purchase a used vehicle from another community that is newer.

Operational Impact

The replacement of this vehicle will be placed in front line service, with Engine 222 moved to reserve status. The need to maintain a reserve pumper exists when the front line Engine is down for maintenance or repair, to give responding off-duty firefighters apparatus to respond with to run multiple calls when the front line pumper is in use and allows for a mutual aid while maintaining a response pumper to provide adequate fire suppression within our Village.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
Reduction of Front-line Engine repairs-between $10,000 - $22,000	Reduce maintenance on fleet by providing new, warranty driven apparatus, replacing older, costlier vehicle. Reduction in maintenance costs for first three years (warranty) on new vehicle and E222-reduced by placing in reserve status of 11 year old vehicle.

Administrative Vehicle –C201 2017 $25,750 CERF

Make	FORD
Model	Escape
Year	2011
Cost	$19,058
Useful Life	10 years (6 frontline)
Current Life	2 yrs

- Critical
- Recommended

X Contingent on Funding

Vehicle Description

C201 is the administrative vehicle assigned to the Deputy Fire Chief. This vehicle is purchased through the State of Illinois Central Management Service (CMS) program or at a local dealer that will match the cost in the State Purchasing program. This vehicle is equipped with emergency lights and siren for emergency response and administrative function and serves as an incident command vehicle at emergency scenes.

Vehicle	Year	Date	Road Mileage
C-201	2011	11/15	9,820 as of 11/15/2012

C-201 Breakdown/Repairs Past 2.5 Years	
Number of Breakdowns/Repairs	3
Repair Cost	$150

Project Alternative

Purchase an all-wheel drive SUV to place in service for severe weather conditions. This provides better traction ability during response in extreme conditions (4 wheels vs. 2 wheel drive).

Maintain current vehicle for another year and re-evaluate next budget.

Operational Impact

This vehicle was originally scheduled for a six (6) year useful life. The requested vehicle will replace the 2011 Ford Escape, that then will be used for school & training, travel, and provide an auxiliary vehicle in the Village fleet for other departments.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
Normal reduction in maintenance costs.	Reduce maintenance on fleet by providing new, warranty driven apparatus, replacing older, costlier vehicle.

Sewer & Water Improvements – Five Year Capital Improvement Program

This section of the Capital Improvement Plan identifies funding for sewer and water improvements, which are scheduled to continue through FY 2018. The Village's sewer and water system is comprised of the following:

Type of Sewer	Number of Miles
Combined Sanitary Sewer	33.13
Storm Sewer	0.19
Water Main	40

The following improvements are proposed for 2014:

Improvement	Cost of Improvement	Funding Source	Nature of Project
Sewer Lining	$85,000	W/S Operating	Critical
Sewer Point Repairs	$15,000	W/S Operating	Critical
Pump Station Improvements	$24,000	W/S Operating	Critical
Water Meter Replacements	$25,000	W/S Operating	Recommended
Water Main Replacement	$332,000	W/S Operating	Critical
Hydrant Replacement	$30,000	W/S Operating	Recommended
Total	**$511,000**		

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law.

Critical projects are highlighted in yellow.

Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.

Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Sewer & Water Summary

Water & Sewer Improvements	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
Sewer System									
Sewer Lining	1	Critical	85,000	140,000	140,000	140,000	140,000	645,000	W/S
Sewer Point Repairs	3	Critical	15,000	15,000	15,000	15,000	15,000	75,000	W/S
Pumping Station									
Pump Station Improvements	4	Critical	24,000	49,000	8,500	-	-	81,500	W/S
Water System Efficiency Improvements	6	Contingent	-	105,000	42,000	55,000	-	202,000	W/S
Water Distributribution Improvements									
Water Meter Replacements	8	Recommended	25,000	25,000	25,000	25,000	10,000	110,000	W/S
Water Main Replacement	10	Critical	332,000	207,000	87,000	315,000	400,000	1,341,000	W/S
Hydrant Replacement	13	Recommended	30,000	15,000	15,000	15,000	15,000	90,000	W/S
Total			**511,000**	**556,000**	**332,500**	**565,000**	**580,000**	**2,544,500**	

Proposed Financing			2014	2015	2016	2017	2018	Five-Year Total
Water and Sewer Operating Fund			511,000	556,000	332,500	565,000	580,000	2,544,500
Total			**511,000**	**556,000**	**332,500**	**565,000**	**580,000**	**2,544,500**

Sewer Relining Program		2014	$85,000	W&S
Public Sewers		2015	$140,000	W&S
		2016	$140,000	W&S
		2017	$140,000	W&S
X	Critical	2018	$140,000	W&S
-	Recommended			
-	Contingent on Funding			

Original Purchase Date & Cost
N/A

Spending History

2012-13	$79,466
2011-12	$50,779
2010-11	$23,598
2009-10	$106,873
2008-09	$94,206

Program Description & Justification
The purpose of this program is to improve the Village's sewer system and prevent costly repairs associated with failing sewer mains (collapsed, cracked, etc.). The objective is to evaluate the conditions of sewer mains (via televising), identify those in the worst condition, and perform relining of as many sections as possible. In some situations, sewer mains may have failed beyond the ability to reline and a point repair (or replacement of a section) may be necessary. The Village's sewer system is a critically important infrastructure system.

The Water and Sewer Rate Study completed by Baxter & Woodman in FY 12 recommends an annual funding level of $140,000 for this program.

The process of relining consists of inserting a sleeve made of flexible material in the existing pipe. The sleeve is then filled with water and heated to a high temperature for curing and hardening. This process provides the existing failing pipes with the structural support needed to continue their service and avoid a costly complete replacement.

Since the Village's first sewer relining project, over 30,000 lineal feet of sewers have been relined. This represents approximately 18% of the total sewer mains owned / maintained by the Village (approximately 171,000 lineal feet). All sewers that were rated either poor or fair (condition ratings "D" and "C") during the sewer televising program from the late 1990's have been relined. Relining all unlined combined sewers that are less than 33 inches in diameter would cost approximately $9 million.

In 2011, Public Works developed an in-house sewer televising program. Public Works Staff reviews the video recordings and the sections of failing sewer mains will be identified and prioritized. This in-house sewer televising program has identified sewer mains in poor condition that will be relined in the coming years. Extreme weather conditions and the on-going root growing of trees have accelerated the rate of deterioration of the Village's combined sewers.

The following table identifies the sewer condition ratings, description of condition, and the recommended action:

Condition Rating	Condition Description	Recommended Action
A	Random cracking / some roots	Continue monitoring
B	Medium cracking / Medium root problem	Reline in 1 to 3 years
C	Heavy cracking / Heavy root problem	Reline immediately
D	Structural damage / Fully blocked by roots	Requires replacement

2014 Sewer Relining Recommended Locations

Segment No.	Location/Address	Present Condition
1	138 to 146 Ashland Ave	C
2	146 to 202 Ashland Ave	C
3	34 to 46 Forest Ave	C
4	46 to 110 Forest Ave	C
5	718 to 738 Franklin Ave	C
6 - 8	700 block of Harlem Ave (three segments)	C

Public Works Staff projects a total project cost of $85,000 for the recommended relining locations.

Program Alternative

Once the structural integrity of the pipe is severely affected, beyond the ability to reline, the sole option is to perform an open-trench point repair that will require heavy street construction, temporary interruption of traffic flow, and costs associated with restoring the street's driving surface. The preferred and more cost effective option to improving sewer mains is sewer relining.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Sewer Point Repairs	2014	$15,000	W&S
Public Sewers	2015	$15,000	W&S
	2016	$15,000	W&S
	2017	$15,000	W&S
	2018	$15,000	W&S

X Critical
\- Recommended
\- Contingent on Funding

Original Purchase Date & Cost
N/A

Spending History

2012-13	$15,000 (projected)
2011-12	$2,650
2010-11	$5,603
2009-10	$7,497[1]
2008-09	$22,728[1]

[1]Estimates based on Springbrook

Program Description & Justification
The purpose of this program is to improve the Village's sewer system by replacing failing (collapsed, cracked, etc.) sections of sewer main (also referred to as point repairs). Our objective is to evaluate the conditions of sewer mains (via televising), identify those in the worst condition, and perform relining of as many sections as possible. In some situations, sewer mains may have failed beyond the ability to reline and a point repair may be necessary. The majority of point repairs are made on an emergency basis and can be costly. The Water and Sewer Rate Study that was completed by Baxter & Woodman in FY 12 recommends an annual funding level of $15,000 for this program.

In 2011, Public Works developed an in-house sewer televising program. Village Staff will review the video recordings and, on an ongoing basis, identify the sections of failing sewer mains. Those sewer sections that cannot be relined will be replaced.

Program Alternative
Once the structural integrity of the pipe is severely affected, beyond the ability to reline, the sole option is to perform an open-trench point repair.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Pump Station Improvements	2014	$24,000 W&S
Water & Sewer	2015	$49,000 W&S
	2016	$8,500 W&S

X Critical
- Recommended
- Contingent on Funding

Project Description & Justification
The following projects involve improvements and maintenance to the Pump Station facility, controls for the water distribution system, storage reservoirs, and water tower:

Repair/Improvement	Estimated Cost	Year Recommended
Inspect reservoirs and elevated storage tank	$8,000	FY 14
Replace two 12" master water meters (labor to be performed in-house by Public Works – est. savings of $2,000)	$16,000	FY 14
Replace processing and logic controls (includes wireless communication system)	$42,000	FY 15
Upgrade SCADA software	$7,000	FY 15
Replace front service door	$5,000	FY 16
Paint exterior wooden trim (Main building and Vent House)	$3,500	FY 16

The following is a summary of the improvements:

Inspect the underground reservoirs (2.0 and 0.5 million gallon) and elevated storage tank (0.5 million gallon): It is recommended that the condition of reservoirs and elevated storage tanks be assessed every three to five years. These storage facilities have not been inspected in approximately ten years.

Replacement of two master meters: There are two mechanical 12" master meters in the Pumping Station that constantly monitor incoming and outgoing flow. The data from these meters is used for reporting purposes and to calculate unaccounted flow. Since these meters rely on moving parts, the chamber needs to be removed and sent in for service every 3-5 years which requires a spare to be installed while the unit is calibrated or repaired. Staff was recently informed that repair parts for these meters are no longer available. The new meters utilize a magnetic sensor, do not have any moving parts and are extremely accurate in comparison to the current meters.

Replace programming and logic controls: The current control system was installed as part of a pump station improvement project in 1987-88 and has become obsolete. Electronic components used in the current control system limit functionality and compatibility with newer technology making it difficult to integrate, upgrade or repair the different parts. Repair parts for the current system are also becoming increasingly scarce and expensive, when available.

The wireless system between the water tower and pumping station will eliminate the need for the current dedicated land line that is currently utilized and paid for by the Village at an estimated savings of $45 per month ($540 annually). The land line currently used was damaged recently by some underground work that was done near the public works garage and resulted in loss of communication between the tower and station for an extended period of time.

Upgrade SCADA software: Upgrading the SCADA control software ensures compatibility and increased functionality with the new logic controls.

Replace front service door: The front door on the Pumping Station is original to the building and is in poor condition. Replacing the door improves the aesthetics and security of the building.

Paint exterior wood trim: The wood soffit and facia for the pump station are due for maintenance and should be scraped, primed and painted.

Project Alternative

There are essentially no alternatives to these improvement and maintenance projects as they contribute to the operation and safety of the water distribution system. Deferring these projects would result in emergency repairs that could increase project costs (compared to soliciting bids/proposals).

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None in 2014 $540 savings in 2015	None in 2014 Eliminate dedicated land line

Water System Efficiency Improvements

2015	$105,000	W&S
2016	$42,000	W&S
2017	$55,000	W&S

- Critical
- Recommended
X Contingent on Funding

Name of Project

Spending History

2012-13	$68,500 (Projected)
2011-12	$0
2010-11	$0
2009-10	$0
2008-09	$0

Program Description & Justification

In 2010, the Village approved a professional services agreement with Baxter & Woodman, Inc. to study the Village's water pumping system. The goal of this Energy Efficiency Study was to determine alternatives the Village can employ to reduce the overall electrical energy required to deliver water to the community by evaluating the hydraulic (mechanical), electrical, and operational aspects of the pumping station. It is important to note that the quantity of electricity required to deliver water is not limited to pumping and includes lighting, chemical feed, heating, air conditioning, ventilation, as well as building consumption.

Although Baxter & Woodman's final report indicated that the Village's Pumping Station and distribution system appear to be operating in an efficient manner, they included recommendations for actions to improve the overall pumping and operating efficiency of the Station and distribution system. The following is a summary of their recommendations:

Recommended Improvement	Estimated Project Costs[1]	Estimated Yearly Energy Cost Savings
Lighting Fixture Replacement	completed FY 13	$215
Relocate Pump Foot Valves	completed FY 13	$340
Discharge Check Valve Removal	completed FY 13	$820
Interconnect Suction Pipes	completed FY 13	$120
Replace first floor windows	completed FY 13	Not known
Replace Pump No. 1 [2]	$87,000 (FY 15)	N/A
Pump No. 1 Pipe and Valve Changes [3]	$18,000 (FY 15)	N/A

Reservoir Turbine Generator	$42,000 (FY 16)	$8,000
Reservoir Operations (fill valve repl.)	$18,500 (FY 17)	$1,500
Geothermal Heat Pump	$36,500 (FY 17)	$3,300

[1] Estimated Project Costs were developed by Baxter & Woodman in 2010. Estimated projects costs for fiscal years 15, 16, and 17 reflect inflationary increases (approximately 3% annually).

[2] The improvements completed in FY 13 may decrease friction on the suction side of the pump to the point where the replacement of pump no. 1 may not be necessary.

[3] Completed in conjunction with Replacement of Pump No. 1

2014 Recommended Project

Staff recommends deferring additional improvements recommended by Baxter & Woodman until the improvements completed in FY 13 have been evaluated/analyzed. Therefore, Staff recommends not allocating funding for the remaining improvements in FY 14.

Program Alternative

The alternative to these projects is to not make these improvements and maintain the current level(s) of energy efficiency.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$8,000 Savings in 2016 $4,800 Savings in 2017	Savings realized from reduced energy consumption

Water Meter Replacement Program	2014	$25,000	W&S
	2015	$25,000	W&S
	2016	$25,000	W&S
	2017	$25,000	W&S
	2018	$10,000	W&S

- \- Critical
- X Recommended
- \- Contingent on Funding

Name of Project

Spending History

2012-13	$24,000 (Projected)
2011-12	$39,207
2010-11	$8,890
2009-10	$46,450
2008-09	$306,975

Summary of spending history:

- FY 13 replaced meters greater than 20 years of age
- FY 12 replaced 1.5-inch meters and 1,000 cubic foot meters (with 100 cubic foot meters)
- FY 11 replaced 2-inch and 3-inch meters
- FY 10 replaced/upgraded meters compatible with radio read technology
- FY 09 replaced/upgraded meters compatible with radio read technology

Program Description & Justification

The purpose of this program is to improve the metering accuracy of Village-owned commercial and residential water meters. Water Division employees tested meters in the 15 – 20 year age category and found that some did not meet AWWA (American Water Works Association) standards for meter accuracy. Although not a standard, studies recommend that residential water meters be replaced every 15-20 years. Water meters can be damaged and deteriorate with age, thus producing inaccurate readings. Inaccurate readings will give misleading information regarding water usage, make leak detection difficult, and result in lost revenue for the system.

2014 Recommended Project

A summary of the meters proposed to be replaced is listed below. All meters would be replaced in-house utilizing Water Division employees.

Meters >15 and < 20 years old (installed 1992-1996)

Size	Qty.	Cost	
5/8-inch	503 x $115	$57,845	Sensus iPERL
0.75-inch	102 x $134	$13,668	Sensus iPERL
1-inch	72 x $173	$12,456	Sensus iPERL
1.5-inch	26 x $467	$12,142	Sensus OMNI R2
2-inch	8 x $650	$5,200	Sensus OMNI R2
	711	***$101,311***	***Total***

There are approximately 711 meters that are between 15 and 20 years of age. The cost to replace all of these meters in this age category is approximately $100,000. Therefore, an approximate annual funding level of $25,000 for fiscal years 2014, 2015, 2016, and 2017 is recommended.

Program Alternative

As the Village's water metering system is critically important as a source of revenue, it is important to plan/budget for the replacement of water meters that have reached or exceeded the end of their useful service life. The primary alternative to this program is to not budget/plan for water meter replacements and respond to metering failures and inaccuracies as they occur.

An alternative to the Village incurring the costs of the new meters is requiring that the building/property owners incur a portion or all of the new meter costs.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Water Main Replacement Program	2014	$332,000	W&S
	2015	$207,000	W&S
	2016	$87,000	W&S
	2017	$315,000	W&S
	2018	$400,000	W&S

X Critical
\- Recommended
\- Contingent on Funding

Name of Project	**Spending History**	
Washington Boulevard Water Main	2012-13	$116,416
Monroe Avenue Water Main	2011-12	$175,887
Park Avenue Water Main	2010-11	$258,302 (estimated)
Lathrop Avenue Water Main	2009-10	$347,304
No project	2008-09	$0

Program Description & Justification
The purpose of this program is to improve the condition of the Village's water mains by replacing aging and deteriorating water system infrastructure. This is accomplished by replacing deteriorating segments of water mains before they break which will necessitate costly repairs and the experience of significant water loss with associated water consumption costs. The Village's water distribution system is a critically important infrastructure system.

The Village has approximately 40 miles of water main. The majority of the water mains are between 50 and 80 years old. On average, there are seven water main breaks per year. It has been proven that as water mains become old and reach the end of their useful lives, performance deteriorates resulting in high maintenance costs, loss of hydraulic capacity and water quality, and a significant increase in customer complaints. The AWWA recommends replacing one-percent of the distribution system every year.

Each year, Village Staff conducts an analysis of failing or problematic sections of water main for the purpose of determining the need to replace specific water mains based on history and number of breaks, outdated size, or any other defective condition. A typical water main project involves an open trench installation of the new water main pipe and the transfer of all fire hydrants and private water services to the new main before the old main is abandoned. Water main projects are typically followed by a resurfacing project of the street's surface.

2014 Water Main Replacement Recommended

Location: Thatcher Ave – From valve located just north of Chicago Ave to 923 Thatcher Ave
Project Length: Approximately 900 feet

The proposed water main replacement project (proposed for FY 14) will improve the existing 8-inch water main to a ductile iron 8-inch water main. This project will also include replacing the valve on Thatcher just north of Chicago. Due to known and anticipated utility and tree conflicts, along with Thatcher Avenue being a state (IDOT) route, locating the new water main beneath the public sidewalk appears to be the most feasible option. The preferred option is to install the new water main beneath Thatcher Avenue, but further analysis and investigation by Staff and the Village's engineering consultant will be necessary. This 900-foot length of water main has experienced five water main breaks since 1995 - three within the past 12 months. The cost estimate for this project is as follows:

- $20,000 for contractual design engineering services. If performed by Village Staff, proposed project amount will be reduced by $20,000.
- $255,000 for construction (construction engineering to be performed in-house)
- $50,000 for the installation of concrete base and asphalt patch along water main trench (if new water main installed beneath Thatcher Ave)

Three valves in the Village's water distribution system have, at times, demonstrated faulty operations and Staff is concerned they cannot be relied upon in emergency situations.

a. Hawthorne, east of Thatcher: 6-inch diameter
b. Augusta & Thatcher: 6-inch diameter
c. Park & Chicago: 8-inch diameter

Staff recommends the replacement of the following valve in FY 14 at a cost of $7,000:

a. Hawthorne, east of Thatcher

Cost summary for recommended improvements in FY 14:

Design engineering	$20,000
Construction	$255,000
Thatcher Ave Surface	$50,000
Valve on Hawthorne Ave	$7,000
	$332,000

Future Water Main Projects

Staff evaluates the Village's water distribution system and trends in water main breaks on an annual basis to identify and prioritize future projects. Staff has identified the following water system improvement projects for possible future fiscal years:

- Replace 4-inch main beneath Keystone Avenue (from Lake Street and Central Avenue) with 8-inch water main (from Lake Street to Hawthorne Avenue). The purpose of this

is to eliminate an existing dead-end water main (not connected to a loop) with a new main that loops the existing 10-inch on Lake Street with the 6-inch main on Hawthorne to improve flow and pressure between the water distribution systems north and south of the railroad.

Estimated project cost:

$180,000 construction (excludes surface restoration)
$27,000 engineering (design and construction oversight)

- Abandonment of the existing 6-inch water main (and two hydrants) that are within an easement between Harlem Avenue and Bonnie Brae Avenue, from the E-W alley north of Quick Avenue to Chicago Avenue. The work would also involve the extension of the 6-inch water main in the east-west alley north of Quick Avenue to the existing 8-inch water main in Harlem Avenue. The water services for 750 Harlem Avenue, 630 Harlem Avenue and for 7200-7214 Oak Ave would be transferred to the 8-inch water main in Harlem Ave.

  Estimated project cost:

  $75,000 construction (excludes surface restoration)
  $12,000 engineering (design and construction oversight)

- Replace the 8-inch water main beneath River Oaks Drive and Auvergne Place. This water main loop has experienced five breaks since 2007.

  Estimated project cost:

  $275,000 construction (excludes surface restoration)
  $40,000 engineering (design and construction oversight)

Program Alternative

As the Village's water distribution system is a critically important infrastructure system, it is important to plan/budget for the replacement of water mains that have reached or exceeded the end of their useful service life. The primary alternative to this program is to not budget/plan for water main replacement projects and respond to water main breaks as they occur. These repairs, which are typically conducted on an emergency basis, involve an open-trench that will require heavy street construction, temporary interruption of traffic flow, and costs associated with restoring the street's driving surface.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Hydrant Replacement Program	2014	$30,000	W&S
	2015	$15,000	W&S
	2016	$15,000	W&S
	2017	$15,000	W&S
	2018	$15,000	W&S

\- Critical
X Recommended
\- Contingent on Funding

Name of Project

Spending History

2012-13	$14,590
2011-12	$28,708
2010-11	$29,325
2009-10	$41,833
2008-09	$75,480

Program Description & Justification
The Village's fire hydrant system is a critically important infrastructure system. The Village owns and operates approximately 446 fire hydrants.

The purpose of this program is to maintain all of the Village's fire hydrants in excellent operating condition. The Village's Fire Department conducts two hydrant flushing programs each year. During these Village-wide hydrant flushing events, Fire Department personnel identify hydrants in need of repair and provides a list of those hydrants to Public Works to coordinate and/or make the necessary repairs. Those hydrants that are not in operating condition are prioritized for immediate repair.

2014 Hydrant Replacements Recommended
The Public Works and Fire Departments have identified the following hydrants as operable but "too low" (less than 18 inches from the ground to port) which prevents the hydrant wrench from rotating freely around the main/steamer port (slows down the time required to connect the fire hose to the hydrant):

1. Intersection of Monroe & Lake
2. 400 Park
3. 125 Gale
4. Intersection of Gale & Vine
5. 1322 Lathrop
6. 1246 Lathrop

Due to their age, neither replacement parts nor extensions for these Eddy hydrants are available. Although these hydrants are operational and provide adequate fire flow, Staff recommends that they be replaced in the coming years. Public Works currently has four used fire hydrants in stock that can be placed into service. Therefore, Staff recommends replacing these six hydrants in FY14:

4 hydrants x $4,500 labor only =	$18,000
2 hydrant x $6,000 labor and hydrant =	$12,000
Total =	$30,000

Program Alternative

The Village's fire hydrant system is a critically important infrastructure system and it is important to budget for the replacement of hydrants that have reached or exceeded the end of their useful service lives. The primary alternative to this program is to not budget/plan for hydrant replacement and make more costly emergency repairs.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Information Technology– Five Year Capital Improvement Program

The Village's Information Technology (IT) function is responsible for purchasing and maintaining all computer systems and personal computers, providing technical support to all systems and supervision of village hired consultants and vendors. The Village has contracted with the Village of Oak Park for day-to-day IT support.

In FY 2012, the Village retained the services of ClientFirst to prepare a strategic information technology business plan. This plan evaluated the Village's hardware and software capabilities to determine any possible improvements that could be made in order to fully meet the Village's business needs, including:

- A comprehensive evaluation of the Village's hardware and software systems to determine the extent of the Village's capabilities.
- An inventory on the current hardware and software systems in the Village to determine what additional functions the Village should have as measured by industry best practices.
- A 5 year replacement schedule to provide the Village with realistic recommendations for its IT system needs.
- Evaluation of the Village's bandwidth capacity.
- Redundancy recommendations to ensure continuity of service.
- Disaster recovery capabilities.

The following improvements, as recommended by ClientFirst, are proposed for 2014:

Equipment	Cost of Equipment	Funding Source	This Project is:
PC Replacement	$3,000	General Fund	Recommended
Server Replacement	$16,000	General Fund	Critical
Miscellaneous Improvements	$12,860	General Fund	Recommended
Total	**$31,860**		

Each project in the CIP is categorized by the requesting department as follows:

Critical- The project must be completed in the year recommended due to safety or operational needs or as mandated by law.

Critical projects are highlighted in yellow.

Recommended- The project will significantly improve operations or safety. The project is strongly recommended for funding in the year recommended or the year after.

Contingent on Funding- The project would be a benefit to the Village and improve service levels but is only recommended if funds are available.

Five Year Capital Improvement Program
Information Technology Summary

Equipment Summary	Page	This Project is:	2014	2015	2016	2017	2018	Five-Year Total	Funding
PC Replacement	1	Recommended	3,000	3,000	6,000	14,000	4,000	**30,000**	General
Server Replacement	2	Critical	16,000	-	12,500	12,500	20,000	**61,000**	General
Disk Space Expansion	4	Critical	-	22,500	-	-	-	**22,500**	General
Disaster Recovery Enhancements	5	Recommended	-	18,000	-	-	-	**18,000**	General
Network Improvements	6	Recommended	-	5,000	10,000	-	38,500	**53,500**	General
Miscellaneous Improvements	7	Recommended	12,860	11,500	2,000	2,500	7,500	**36,360**	General
Total			**31,860**	**60,000**	**30,500**	**29,000**	**70,000**	**221,360**	

Proposed Financing

			2014	2015	2016	2017	2018	Five-Year Total
General Fund- Operations			31,860	60,000	30,500	29,000	70,000	221,360
Total			**31,860**	**60,000**	**30,500**	**29,000**	**70,000**	**221,360**

Administration

PC Replacement	2014	$3,000	General Fund
Information Technology	2015	$3,000	General Fund
	2016	$6,000	General Fund
- Critical	2017	$14,000	General Fund
X Recommended	2018	$4,000	General Fund
- Contingent on Funding			

Original Purchase Date & Cost
Various

Funding History

2013	$12,000	General Fund

Project Description & Justification

This program is designed to upgrade the central processing units (CPU's) of the Village's desktop and laptop computer inventory. Peripheral equipment such as monitors, keyboards and printers are replaced on an ad hoc basis.

The Village has 38 desktop computers. The estimated service life of a Village computer is 4 to 6 years. Replacements are prioritized based upon the job responsibilities of the employees. As a result, many workstations are assigned older but serviceable PCs annually, while other key administrative workstations receive a new computer every 3-4 years.

To maximize efficiency, all new computers will include dual monitor cards.

Project Alternative

If this project is not funded, PCs would not be replaced and repairs would be funded as required from IT Support Account 01-10-00-53-0410.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
$500 - $1,000	Minor maintenance costs to update software, monitors, and minor repairs

Server Replacement	2014	$16,000	General Fund
Information Technology	2016	$12,500	General Fund
	2017	$12,500	General Fund
X Critical	2018	$20,000	General Fund
- Recommended			
- Contingent on Funding			

Original Purchase Date & Cost
Various

Funding History

2013	$12,000	General Fund

Project Description & Justification

This program is designed to upgrade the Village's server inventory:

Server	Type	Applications	Purchased	Warranty	Replacement
Sisko	Physical	Print Server	9/2006		N/A- Reuse existing servers
Pine	Physical	File, Application, SQL, 2nd DC	12/2008	12/2015	2016
Crusher	Physical	Intranet, GIS	5/2008		2014
Leo	Virtual	Domain Controller, Anti-Virus	5/2011	5/2014	2017
Pegasus	Virtual	Exchange	5/2011	5/2014	2017
Phoenix	Virtual	Web Server	5/2011	5/2014	2017
Orion	Virtual	IT, Springbrook	8/2012	8/2015	2018

The Orion server was purchased in 2012 per the recommendation of ClientFirst as existing servers were at capacity. Per the ClientFirst recommendations, the Village website was moved offsite in 2012 to ensure non-interrupted communications in the event of a disaster.

Project Alternative

If this project is not funded, servers will need to be replaced as they fail.

Staff is evaluating the possibility of eliminating the Crusher server, thereby eliminating a $16,000 expense in 2014. To do this, the Intranet, which is running on Sharepoint Services, can be moved to any of the other servers as the load is very low. Whether this server can be

eliminated is dependent on the Village's GIS mapping needs. If the Village is to create complex dynamic maps and building applications then a separate GIS server is needed. Because the Village is currently conducting a recruitment for a Village Engineer, a final decision on replacing this server will be delayed until the selected individual provides their feedback regarding GIS mapping. Without a separate GIS server, the Village would still have access to GIS pdf maps and be able to create basic layers with the help of IT personnel.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Disk Space Expansion 2015 $22,500 General Fund
Information Technology

X Critical
- Recommended
- Contingent on Funding

Original Purchase Date & Cost
N/A

Funding History
N/A

Project Description & Justification

With increased use of digital cameras, police video and Laserfiche to digitize records, the Village's disk space is becoming limited and will require expansion. The Village's existing disk farm connects to two servers (file services and Police video). While this is cost effective, is has limited flexibility and prevents new servers from being connected to a disk farm. ClientFirst has recommended that the Village move to a storage area network (SAN) with internet protocol connectivity (uses the network) to maximize flexibility and allow for replication and snap shots of servers. ClientFirst further recommends that the Village retain the existing disk farm for backup to disk and Police video to enhance backup speeds and provide additional space for video storage.

Project Alternative

If this project is not funded, the Village will have to purge files (some police video and files cannot be purged) or have to purchase additional storage space on an ad-hoc basis.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Disaster Recovery 2015 $18,000 General Fund
Information Technology

- Critical
X Recommended
- Contingent on Funding

Original Purchase Date & Cost
N/A

Funding History
N/A

Project Description & Justification

The Village's IT Assessment conducted by ClientFirst recommended a number of disaster recovery initiatives. In 2012, the Village purchased a fireproof safe and now stores backup tapes offsite at the Public Works Garage. In 2015, ClientFirst recommends the purchase of a deduplication server for storage of backup data.

Project Alternative

If this project is not funded, the current disaster recovery program of moving tapes from Village Hall to Public Works will remain in place.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	None

Network Improvements	2015	$5,000	General Fund
Information Technology	2016	$10,000	General Fund
	2018	$38,500	General Fund

- \- Critical
- X Recommended
- \- Contingent on Funding

Original Purchase Date & Cost	**Funding History**
N/A	N/A

Project Description & Justification

The Village's IT Assessment conducted by ClientFirst recommended a number of network improvements including:

2015	New Core Switch-	$5,000
2016	New Edge Swtiches (2)	$10,000
2018	Public Works Wireless	$38,500*

*Currently, VPN over internet is used to connect the Public Works Garage and Water Pumping Station to Village Hall (there had previously been a wireless connection which was disabled during a storm and never re-installed). The connection to Public Works is extremely slow, making it difficult for Public Works employees to access information on the Village network. To address this issue in the interim, a Terminal Server has been installed and Staff is monitoring whether this will be an effective solution.

In the alternative, ClientFirst recommended that the Village consider the installation of a wireless connection between Village Hall and Public Works ($38,500) or the installation of high speed fiber ($24,000 annual cost). Staff will continue to explore solutions in the hopes of eliminating a large expenditure in 2018.

Project Alternative

If this project is not funded in 2015 and 2016, switches will have to be replaced as they fail, resulting in lost productivity (In 2011 an internet switch failed and Staff was without internet access for two days). As noted above, alternatives will continue to be explored for the Public Works internet connections.

Project Impact

Annual $ Impact on Operating Budget	**Description of Operating Budget Impact**
$24,000 beginning in 2018	Cost of high speed fiber for public works connectivity (if this alternative is chosen)
$4,500 beginning in 2018	Cost of wireless maintenance

Miscellaneous Improvements		2014	$12,860	General Fund
Information Technology		2015	$11,500	General Fund
		2016	$2,000	General Fund
-	Critical	2017	$2,500	General Fund
X	Recommended	2018	$7,500	General Fund
-	Contingent on Funding			

Original Purchase Date & Cost
N/A

Funding History
N/A

Project Description & Justification
The Village's IT Assessment conducted by ClientFirst recommended a number of miscellaneous improvements over the next several years:

2014	Windows Software Updates & Patching	$5,500
	Wireless Expansion at Village Hall	$1,000
	Electronic Mail Archiving	$3,360
	Review of 5-year IT Plan	$3,000
2015	Inventory Alerts and Alarms	$5,000
	Wireless Expansion – Pumping Station	$1,000
	Remote Access Improvements	$3,000
	Document Management Upgrades	$2,500
2016	Wireless Expansion- Public Works	$2,000
2017	Document Management Upgrades	$2,500
2018	To Be Determined	$7,500

Project Alternative
While none of the above projects are mission critical, they will ensure that the Village continues to implement best management practices and properly maintains its IT infrastructure. Should projects not be funded, they will be rescheduled for future years.

Project Impact

Annual $ Impact on Operating Budget	Description of Operating Budget Impact
None	