Village of Lindenhurst

2018 Capital Improvement Plan (CIP)

DRAFT

Introduction

The purpose of the Village's Capital Improvement Plan (CIP) is to establish a long range planning tool to provide for the investment in major community infrastructure improvements and the maintenance/repair/replacement of existing Village facilities and equipment.

The Village currently uses various capital funds for infrastructure and community improvements. These include:

- Community Capital Fund
- Water/Sewer Capital Fund
- Motor Fuel Tax Fund
- Public Works Vehicle Replacement Fund
- Police Squad Car Replacement Fund

More specifically, the Capital Improvement Plan will:

1. Identify existing major infrastructure and facilities.
2. Describe the CIP planning process.
3. Identify needed capital improvement projects over the next 20 years.
4. Provide a summary of current debt obligations.
5. Identify, categorize and describe potential future community improvement projects.
6. Make recommendations to maximize community improvement spending.

When planning for capital projects, the Village uses four primary objectives when evaluating the priority of projects:

1. Continuation of Maintenance and Replacement of Village Infrastructure to Address Essential Community Infrastructure Needs
2. Improvements to Technology to Increase Operational Efficiencies or Increase Data Driven Decision-Making
3. Enhances Quality of Life Elements and Improves Property Values
4. Improve Citizen Engagement in order to Establish Future Goal Setting and/or Comprehensive Planning

To reinforce the themes outlined in this memo, there will be corresponding numeration in the capital improvement projection.

Planning Process

The planning process for the Capital Improvement Plan is a multi-step process and includes the following steps.

1. Annually, staff will prepare a draft CIP that includes revenue projections and proposed projects and costs.
2. The Draft CIP will be reviewed annually by the Village Board.
3. After this review, the Village Board will consider taking action as specified in the Recommendation section of the CIP.
4. Staff will prepare a final CIP to include any Village Board decisions/modifications.
5. Staff will begin preparation of capital projects to be included in the next budget year.

Existing Village Infrastructure, Facilities and Major Equipment

- Well water distribution system that includes 6 well houses, 9 wells, two water towers that hold 750,000 and 500,000 gallons, a 1,000,000 gallon reservoir, and 51 miles of watermains.
- Wastewater treatment system that includes, 11 lift stations, 53 miles of sanitary sewer lines and a waste water treatment facility that can treat 2.0 million gallons per day.
- 94.3 lane miles of streets and rights of way.
- 5,312 parkway trees.
- 134 Village-owned streetlights.
- 728 fire hydrants.
- Village Hall and Garage area
- Public Safety Building
    - Radio antenna
- Public Works Garage
    - Salt dome
    - Material storage area
    - Fuel station (limited use)
- Veteran's Memorial
- 8 police vehicles
- Public Works Vehicles & Major Equipment
    - 2 Public Works sport utility vehicles
    - 5 Public Works pick-up trucks
    - 2 – 2 yard dump trucks
    - 6 – 5 yard dump trucks
    - 1 – 10 yard dump truck
    - Backhoe, Jetter, Loader, Vactor, Roller, Trash Pump
- 4 Lakes
    - Lake Potomac (14 acres)
    - Waterford (67 acres)
    - Linden (31 acres)
    - Springledge (5 acres)

Project Types

Village capital improvement projects will be identified into the following areas:

- Road Improvements
- Storm water
- Water & Wastewater
- Bike Paths and Sidewalks
- Village facilities
- Vehicle replacement
- Miscellaneous

Some projects will require design and construction engineering services. Where possible, these costs will be listed separately.

Capital improvement projects can be listed as any of the following:

- **Engineering Design** –Involves the design of a project.
- **Major Equipment Replacement** – Occurs when a piece of equipment exceeds its useful life and needs to be replaced.
- **Capital Improvement or Expansion** – Any project that enhances or improves the community such as a new bike path, providing additional storm water capacity, or the addition of decorative street lights.
- **New Equipment** – The purchase of new equipment. These items are typically in excess of $10,000.

Community Capital

The Community Capital Fund typically funds storm water improvements, bike path and sidewalk improvements, municipal facility improvements, a portion of road improvements and other miscellaneous improvements as determined by the Village Board.

Regular Revenue & Expenses

Regular Revenue

Transportation & Facilities Fee	
Cell Antenna Lease Fees	
Income Tax (10% of total)	
Sales Tax (10% of total)	
Public Facility Donation	
Video Gaming Revenues	
Interest	
General Operating Fund Transfer[1]	$TBD

Regular Expenses

Refunding Bonds Series 2013	
Misc. Equipment	

[1] At the end of each fiscal year, any available dollars in excess of the General Fund Target balance are transferred into the Community Capital Fund.

You may notice the color coding used in the capital improvement projections. Because of the nature of capital projects, I have highlighted projects based on their disposition. The color codes correspond as follows:

Peach	Projects Committed to as Ongoing Maintenance or Part of an Agreement
Lavender	Previously Approved Projects Underway
Olive	Proposed Projects for Current Year
Salmon	Future Projects

"Peach" Projects

These projects we conduct annually or were programmed by the Village Board in previous years. In this category you will see our annual pavement patching program and Emerald Ash Borer elimination program. Beginning in 2018/2019, we will shift our priority of EAB removal to replanting. We believe that this commitment in future years will reduce as we move toward completion of replanting over the next two years.

This section also includes our contributions to the rebuilds of Grand Avenue and US 45. The projection includes our contribution to each project respectively. Each project must be paid 80% upfront, and in the case of Grand Avenue an estimate included for utility relocation. The amount for the decorative improvements to Grand Avenue is also calculated in this section. The $250,000 is an estimate based on the elements in the project. What we do not know is whether this amount will be requested in 2018 at the beginning of the project or in 2019 at the end. Finally, in order to track and account for Ziegler's sales tax rebate, that amount is estimated and included in the Capital Project expenses.

"Lavender" Projects

The projects in this section are ones previously committed to by the Village Board in previous budgets. Some of these costs will be adjusted based on future information. For example, the entry sign replacement cost will be reduced throughout the course of this year as we plan to expense this cost out before next year which will affect your beginning fund balance. The Comprehensive Plan Update was discussed outlined as a goal by the Village Board in 2015, as another example. Moving forward, policy decisions will need to be made regarding the future of these projects.

"Olive" Projects

Olive projects represent those capital items recommended by the staff for expensing this year. These projects reflect some of the goals I have outlined for the Village to you.

Salmon Project

These projects are projects that should be considered for future year funding. Many costs are estimated at this time.

Community Capital Fund
FY 2018/2019 Programming

Balance as of 12-31-2017	$1,384,251
Regular Revenues	$1,079,066
Operating Transfer (General Fund)	$900,000
Available Funds	***$3,363,317***

Peach Projects	Ongoing Maintenance/Previous Contractual Agreement
Road Program Design Engineering	$25,000
Annual Pavement Patching	$75,000
Emerald Ash Borer Program	$45,000
Grand Avenue Village Contribution	$640,480
Route 45 Village Contribution	$95,735
Police Records Management	$21,983
Zeigler Sales Tax Rebate	$140,000
Subtotal	***$1,043,198***

Lavender Projects	Village Previously Approved Projects
Village Entry Sign Replacement	$37,700
Lindenhurst Drive Flood Design Engineering	$150,000
Lakeshore to Hawthorne FAU Design	$154,263
Comprehensive Plan Update	$100,000
Emerald Ridge Sidewalk Linkage	$260,000
Police Station Booking Area Improvement	$180,000
Police Station HVAC Improvement	$40,000
Hazelwood Vacant Lot Acquisition	$52,000
Hastings Lake Bike Path Connection	$19,450
Subtotal	***$993,413***

Olive Projects	Proposed Projects for Upcoming Fiscal Year
Barcoded Evidence Analysis Statistical Tracking (BEAST)	$12,500
Furnishings for PD Booking Area Improvements	$20,000
Keyless Entry and Remote Door Access	$15,000
Community Survey	$15,000

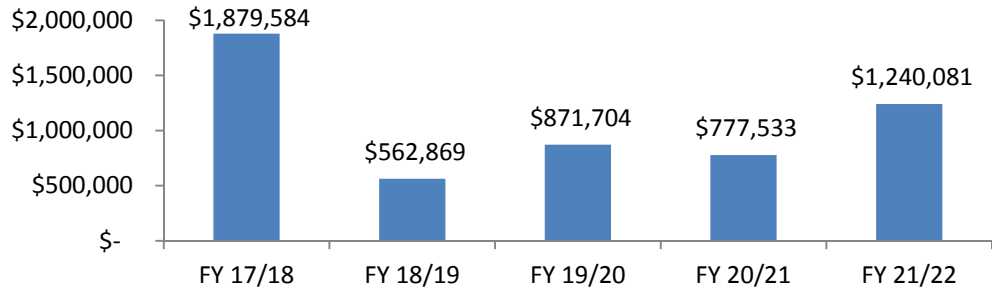
Nixle		$4,000
Public Works Garage Expansion		$20,000
Architectural Study		
GIS Mapping		$8,000
Pavement Management System		$50,000
Miscellaneous Projects		$20,000
Sidewalk Repair and Replacement		$25,000
Stormwater Management Projects		$138,250
Building Permitting Software Upgrade		$56,000
Subtotal		***$383,750***

Salmon Projects		Future Projects
Lakeshore to Hawthorne FAU Design Ph. II	FY 20	$50,000
Video Callbox/Kiosk Police Dept. Lobby	FY 20	$12,000
Public Works Garage Expansion Construction	FY 21	$500,000
Route 132 Amenities	FY 21	$150,000
Village Hall Parking Lot Resurfacing	FY 22	$230,000
Subtotal		***$892,000***

Debt Service Expense	FY 19	**$100,865**
TOTAL FY 2019 COMMUNITY CAPITAL EXPENSE		***$2,521,226***
END COMMUNITY CAPITAL FUND BALANCE		***$562,869***

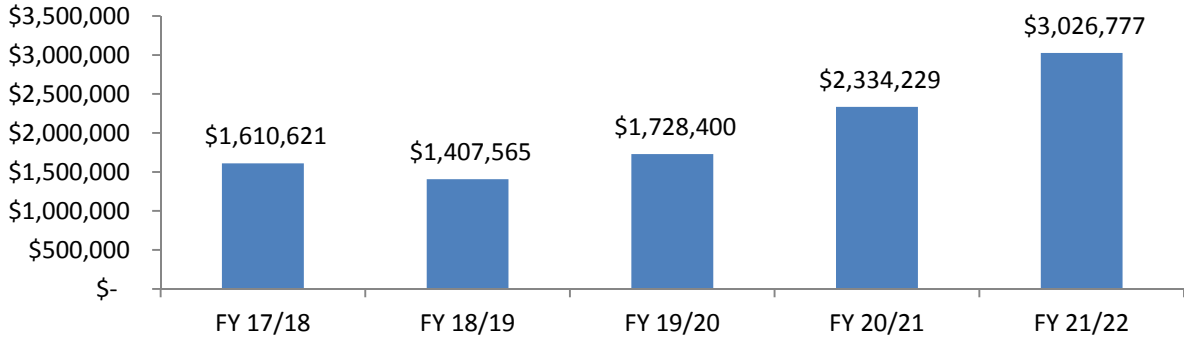
Community Capital Fund
5-Year Projection - Committed Projects & Projects for Consideration
FY 16/17 - 20/21

Beginning Balance	$ 1,264,565	$ 1,244,083			
	FY 17/18	**FY 18/19**	**FY 19/20**	**FY 20/21**	**FY 21/22**
Revenue	$ 1,140,991	$ 940,012	$ 958,812	$ 977,988	$ 997,548
Transfer From Operating		$ 900,000	$ -	$ -	$ -
	$ 1,140,991	$ 1,840,012	$ 958,812	$ 977,988	$ 997,548
Expenses					
Recommended Projects					
Road Program Design Engineering		$ 25,000		$ 25,000	
Pavement Patching	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000
EAB Program	$ 45,000	$ 45,000	$ 45,000	$ 15,000	$ 15,000
Route 132 Village Contribution	$ -	$ 640,480	$ 153,870	$ -	$ -
Route 45 Village Contribution	$ -	$ 95,735	$ -	$ -	$ -
Zeigler Sales Tax Rebate	$ 125,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000
Police Records Management		$ 21,983			
Village Entry Sign Replacement	$ 14,575	$ 37,700	$ -	$ -	$ -
Lindenhurst Drive Flood Phase II	$ -	$ 150,000	$ -	$ -	$ -
Lake Shore Drive Design Eng.	$ -	$ 154,263	$ 50,000	$ -	$ -
Comprehensive Plan Update	$ -	$ 100,000	$ -	$ -	$ -
Emerald Ridge Sidewalk Linkage	$ -	$ 260,000	$ -	$ -	$ -
Police Station Booking Area Improvement	$ -	$ 180,000	$ -	$ -	$ -
Police Department HVAC Improvement	$ -	$ 40,000	$ -	$ -	$ -
Hazelwood Vacant Lot Acquisition & Path		***$ 71,450***	$ -	$ -	$ -
Sidewalk Repair and Replacement	$ -	***$ 25,000***	$ 25,000	$ 25,000	$ 25,000
Barcoded Evidence Analysis Statistcal Tracking (BEAST)	$ -	***$ 12,500***	$ -	$ -	$ -
Furnishings for PD Booking Area Improvement	$ -	***$ 20,000***	$ -	$ -	$ -
PD Keyless Entry and Remote Door Access	$ -	***$ 15,000***	$ -	$ -	$ -
Community Survey	$ -	***$ 15,000***	$ -	$ -	$ -
NIXLE	$ -	***$ 4,000***	$ -	$ -	$ -
Public Works Garage Expansion Architectural Study	$ -	***$ 20,000***	$ -	$ -	$ -
GIS Mapping	$ -	***$ 8,000***	$ -	$ -	$ -
Pavement Management System	$ -	***$ 50,000***	$ -	$ -	$ -
Stormwater Management Projects	$ -	***$ 138,250***	$ -	$ -	$ -
Building Permitting Software Upgrade	$ -	***$ 56,000***	$ -	$ -	$ -
Video Callbox/Kiosk Police Department Lobby	$ -	$ -	***$ 12,000***	$ -	$ -
Public Works Garage Expansion Construction	$ -	$ -	$ -	***$ 500,000***	$ -
Route 132 Amenities	$ -	$ -	$ -	***$ 150,000***	$ -
Village Hall Resurfacing	$ -	$ -	$ -	***$ -***	***$ 230,000***
Debt Obligations	$ 216,397	$ 100,865	$ 99,107	$ 92,160	$ -
Misc. Equipment/Projects	$ 50,000	$ 20,000	$ 50,000	$ 50,000	$ 50,000
	$ 525,972	$ 2,521,226	$ 649,977	$ 1,072,160	$ 535,000
Available Dollars	$ 1,879,584	$ 562,869	$ 871,704	$ 777,533	$ 1,240,081



Community Capital Fund
5-Year Projection - No Additional Projects
FY 16/17 - 20/21

Beginning Balance	$ 1,264,565	$ 1,244,083			
	FY 17/18	**FY 18/19**	**FY 19/20**	**FY 20/21**	**FY 21/22**
Revenue	$ 1,140,991	$ 940,012	$ 958,812	$ 977,988	$ 997,548
Transfer From Operating		$ 900,000	$ -	$ -	$ -
	$ 1,140,991	$ 1,840,012	$ 958,812	$ 977,988	$ 997,548
Expenses					
Recommended Projects					
2015 Additional Road Resurfacing	$ -	$ -	$ -	$ -	$ -
Lindenhurst Drive Flood Mitigation	$ -	$ -	$ -	$ -	$ -
Route 132 Village Contribution	$ -	$ 640,480	$ 153,870	$ -	$ -
Route 45 Village Contribution	$ -	$ 95,735	$ -	$ -	$ -
Police Starcom Radios	$ -	$ -	$ -	$ -	$ -
Zeigler Sales Tax Rebate	$ 125,000	$ 140,000	$ 140,000	$ 140,000	$ 140,000
Village Entry Sign Replacement	$ 52,275	$ -	$ -	$ -	$ -
Lindenhurst Drive Flood Phase II	$ -	$ 150,000	$ -	$ -	$ -
Lake Shore Drive Design Eng.	$ 154,263	$ -	$ 50,000	$ -	$ -
Comprehensive Plan Update	$ -	$ 100,000	$ -	$ -	$ -
Grand Avenue Sidewalk Linkage	$ -	$ 260,000	$ -	$ -	$ -
Hazelwood Vacant Lot Acquisition	$ 52,000	$ 19,450	$ -	$ -	$ -
Debt Obligations	$ 216,397	$ 100,865	$ 99,107	$ 92,160	$ -
Misc. Equipment/Projects	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
	$ 794,935	$ 1,676,530	$ 637,977	$ 372,160	$ 305,000
Available Dollars	$ 1,610,621	$ 1,407,565	$ 1,728,400	$ 2,334,229	$ 3,026,777



Project Descriptions

Grand Avenue Pedestrian Path and Traffic Signal Local Cost Share ***(Objective 1)***

As part of IDOT's planned improvements to Route 132 (Grand Avenue) from Sand Lake Road to Munn Road, the Village can elect to have pedestrian pathways installed as part of the project. This involves the construction of a sidewalk on one side of the road and a bike path on the other side. IDOT will pay for 80% of the cost and the Village would need to pay for the remaining 20%. The estimated cost share to the Village would be $185,941.

Route 132 Decorative Traffic Signals ***(Objective 1)***

As described above, IDOT will be replacing the signalized intersection equipment at Sand Lake Road, Lindenhurst Drive, and Munn Road. The Village is required to pay a portion of those costs, and the Village's share is included in the project line above. However, the Village has the option of requesting the use of decorative traffic signal poles rather than the standard pole. This would be similar to what is currently in place at Sand Lake Road and Beck Road. The Village would be responsible for 100% of the additional cost for the decorative poles. These costs are included in the "Route 132 Village Contribution."

Route 45 Pedestrian Path Contribution ***(Objective 1)***

This project involves the Village's contribution towards pedestrian paths and preemption lights included in the IDOT/LCDOT Route 45 Bypass Project. The Village's estimated local cost share is $95,735.

Zeigler Economic Incentive Payment ***(Objective 3)***

Per the Board approved revisions to the Economic Incentive Agreement between the Village and Zeigler Nissan, the Village has committed to ongoing rebates of 50% of sales tax generated by the project. This is estimated for FY 19 at $140,000.

Lindenhurst Drive Flood Mitigation Phase II ***(Objectives 1&3)***

As noted above, FEMA did not allow site grading, storm sewer improvements and the creation of a storm water detention area to be included in the grant eligible portion of the project. As a result, in order to complete the improvements the Village would need to perform the remaining improvements with Village funds. The remaining work is estimated at $100,000.

Lake Shore Drive Design Engineering ***(Objectives 1&3)***

The Beck Road Reconstruction project improvements ended at Beck Road and Lake Shore Drive. Lake Shore Drive is also a FAU designated route making it eligible for 80% federal funding. Lake Shore Drive is in need of resurfacing, curb replacement, and completion of curb improvements in locations currently without. The Village could seek federal funding for the project, but Phase I

& II engineering design needs to be completed first. The estimated cost of the engineering is $154,263.

Comprehensive Plan Update ***(Objective 4)***

One of the strategic goals established by the Village Board in 2015 was to complete an update to the Village's comprehensive plan. The plan has not been updated since 1998 and should be updated every 10 to 15 years. The process can be time consuming and expensive. The estimated cost is $100,000.

Emerald Ridge Sidewalk Linkage ***(Objective 3)***

With the completion of the Grand Avenue pedestrian underpass, several residents from the Emerald Ridge neighborhood have requested the Village explore options to provide a pedestrian connection to the Millennium Trail system. Currently, there are no pedestrian paths to connect the neighborhood to any of the area trails. In addition, a sidewalk linkage would provide pedestrian access from the future Grand Avenue pathways to the Forest Preserve's Millennium Trail system. The Village has evaluated options and a sidewalk could be installed along Grand Avenue at a cost of approximately $260,000.

Hazelwood Vacant Lot Acquisition ***(Objective 3)***

Over the years the Village, Park District and Forest Preserve have received feedback from residents about a connection point to the Forest Preserve's Hastings Lake Forest Preserve and trail. There is currently a vacant lot for sale on Hazelwood Drive that could facilitate a connection point into the Forest Preserve. This would provide an access point that could be utilized by a large number of homes in the central part of the Village. The cost of the property is $52,000. If acquired, the Forest Preserve has agreed to consider construction of the path. Work to the construct the path is estimated at a cost of $19,450.

Work Stations/Furniture ***(Objective 1)***

In 2016, a spacing study was conducted at the police department and recommendations were made by an architectural firm to increase spacing and provide for a separate, secured booking area. Funding was approved in the FY 17/18 CIP to conduct a remodel of the booking area/report writing area at the police department. Architectural designs have been developed with an "open atmosphere" model. As such, staff is recommending the purchase of six (6) new, contemporary work stations with storage cabinets. Staff is currently working with the architect and the Village furniture company (Staples) on a particular design, with costs not to exceed $20,000.

Access Control/Keyless Entry ***(Objective 1)***

In conjunction with the police department remodel project, a recommendation was made to increase security at the police department by utilizing improved technology via access control

systems (keyless entry). Access control systems track and restrict people in the building and can reduce the risk of external threats. With a new, secured booking area, further recommendations were made to limit access to the booking area and monitor entry to the controlled area. This can be accomplished by placing an electronic locking device on a door requiring a credential (key card or key fob), installing a keypad, or a card swipe reader. The previous key management program lacked scrutiny which allowed a number of keys to the current locks which have not been returned by previous employees, and law enforcement partners from neighboring towns which causes security concerns.

Based on staff research and architect recommendation, staff is recommending upgrades to the current key/lock design, improving expedited entry/exit, increasing security restrictions, and monitoring traffic in the secured area. Staff is recommending to replace five (5) door locks, with a cost not to exceed $15,000.

Community Survey ***(Objectives 3&4)***

The driver of this approach would be the implementation of a statistically relevant community survey to help assess how the public believes we are performing in a variety of operational areas. There are a few companies nationwide who perform this service. We are able to select numerous questions and create customizable questions as well. A company then synthesizes the data and uses it to compare to similar (based on population and demographics) communities nationwide. We are then able to benchmark our performance against those communities and against ourselves. The survey is useful tool in engaging our population and getting opinions of individuals who may not be able to attend a village board meeting or someone who is consistently harping on a singular issue. Surveys can be distributed by mail and email for the broadest possible reach. We then have a metric developed to challenge ourselves and better understand how to allocate our limited resources to better address issues the community views as important. There are recommendations to perform the survey every 2-3 years, but we could select a different timeframe. Numerous Chicago suburb communities conduct similar surveys including Woodridge, Schaumburg, Lake Zurich, Lombard, and Orland Park.

Nixle ***(Objectives 2&3)***

Nixle is a web-based platform that can send out messages directly to email or mobile device. Through Nixle we are better able to send out urgent communications such as traffic accidents, water main breaks, and natural disasters or community-based messages such as updates about Lindenfest. Improved communications and engagement may lead to other opportunities for engagement including Citizen Academies, etc.

GIS Mapping ***(Objectives 1,2,&3)***

The Village has stores of data related to the infrastructure and zoning of our Village. In PDF versions, we have mapped the water and sewer system and all zoning districts. However, we do not have a dynamic platform with which to create even greater depth of the condition of our infrastructure or track other village operations. Utilizing GIS software could provide us much more detailed information related to the Village and track other services we provide. With the police department moving to the New World software package, we could also map calls for service and other incidents. Staff has already begun looking into options for GIS. With the advent of some additional GIS platforms, the upfront costs for GIS software has decreased in recent years.

Resurfacing/Pavement Management ***(Objectives 1,2,&3)***

For many years, the resurfacing program was based upon a schedule assembled by the former Village Engineer. The schedule essentially based the resurfacing of a segment of road based upon the year it was built. This methodology negates the current conditions of the road and still requires annual review of the surface. Because of environmental, traffic, and construction conditions, the roadway may deteriorate at a rate different than what may be anticipated. I would like to make the Village's resurfacing program more data driven to gain more effectiveness on the dollars spent on upgrades.

Pavement management software helps with creating an inventory of all village streets and assign an overall score to their condition. Based upon a number of factors including age of the roadway, traffic counts, surface type, the software can project the ongoing useful life of the roadway. It will also assess the overall condition of the entire roadway network. Once the entire network is assessed, we can use the conditions of the roadway to best direct how resurfacing dollars are spent. PAVER is one such software and you can read about the benefits of using this type of software to standardize our resurfacing approach and use analytics to better spend our limited funds (http://www.paver.colostate.edu/benefits.php).

Stormwater Management Projects ***(Objective 1)***

The Village is continually making strides to address drainage issues in various parts of the community. To that end, we are proposing three projects to address stormwater needs. The first includes sliplining of storm sewers along Federal Parkway. The Federal project would address drainage problems occurring along 225 feet of the 15 inch storm sewer from Federal Circle to Lake Potomac. The second project includes sliplining or replacement of 1,500 feet of 24 inch storm sewer on Longmeadow Drive. Work has been previously conducted at the north and south ends of the storm sewer, with the Longmeadow portion remaining. The final project would be an engineering study on the 500 feet of 24 inch storm sewer flowing from Janega Pond, along Hazelwood Drive, to Hastings Lake. The total of these projects comes to $138,250.

Building Permitting Software Upgrade ***(Objective 2)***

The Village is currently utilizing an extremely out of date software to input, track, and issue building permits. The software is receiving no updates and has no backup capabilities. Further, this software lack compatibility with our financial software package which requires our staff to physically balance our general ledger for permit fees received on a regular basis. New software would improve our functionality and security of our permitting information. We are in the process of reviewing two software packages at this time.

Grand Avenue Streetscaping

This project involves enhancing the visual appearance of Grand Avenue from Sand Lake Road to Lindenhurst Drive with decorative street lights, banners, burial of electricity wires, decorative benches, trash cans and pedestrian walkways. This opportunity to create a commercial focal point will run in conjunction with the Illinois Department of Transportation's (IDOT) plan to add a center median to this section of Grand Avenue. Additional information on this project has been included in this year's plan.

Sediment Removal – Lake Potomac

Remove sediment accumulation from the bottom of Lake Potomac.

Sediment Removal – Lake Waterford

Remove sediment accumulation from the bottom of Lake Waterford.

Sediment Removal – Springledge Lake

Remove sediment accumulation from the bottom of Springledge Lake.

Sediment Removal – Lake Linden

Remove sediment accumulation from the bottom of Lake Linden.

Priority #3 Bike Path (Wetzel Park to Lakes High School)

Provide funding to create a trail to connect from Wetzel Park to Lake High School's Polley Field.

Northern Trail Segment (Grass Lake to Savage)

Provide funding to create a network of trails in the northern section of Lindenhurst, with potential to connect to the Village of Antioch.

Central Trail Segment (Grass Lake/Beck to South)

Provide funding to create a trail starting at the intersection of Grass Lake Road and Beck Road and continue south on Beck Road.

Village Green Trail Segment (from Millennium Trail)
Provide funding to create a trail branch off of the Millennium Trail.

Deep Lake Trail Segment (Library to Lakes High School)
Provide funding to create a trail network at the western portion of Lindenhurst from the Lake Villa District Library to Lakes High School's Polley Field.

Sand Lake Road Pedestrian Trail
Provide funding to create a pedestrian trail along Sand Lake Road between Route 45 and Grand Avenue. Cost unknown. In FY 16/17, the Village submitted a grant application for Congestion Mitigation and Air Quality (CMAQ) funds, but the application was denied.

Water/Sewer Capital

The Water/Sewer Capital Fund typically funds water and wastewater improvements/ replacements including watermains, lift stations, pump stations, etc.

Regular Revenue & Expenses

Revenue

W/S Tap on Fees	$0
Interest	$30,000

Expenses

Projects & Debt	$300,000

Water & Sewer Capital
FY 2018/2019 Program Evaluation

Balance as of 1-31-2018	$687,668
Regular Revenues	$30,000
Operating Transfer (Utility Fund)	$500,000
Available Funds	***$1,217,668***

Lavender Projects	Village Previously Approved Projects
Well Removal/Take Down	$52,000
Subtotal	***$52,000***

Olive Projects	Proposed Projects for Upcoming Fiscal Year
WWTF Phosphorus Analyzer, Pumps, Probes	$80,000
PLC Replacement – Lift Stations #2-4	$50,000
Lift Station Upgrades – Stations #9 & 10	$150,000
Fiber Optics at WWTF	$12,000
Miscellaneous Equipment	$25,000
Subtotal	***$317,000***

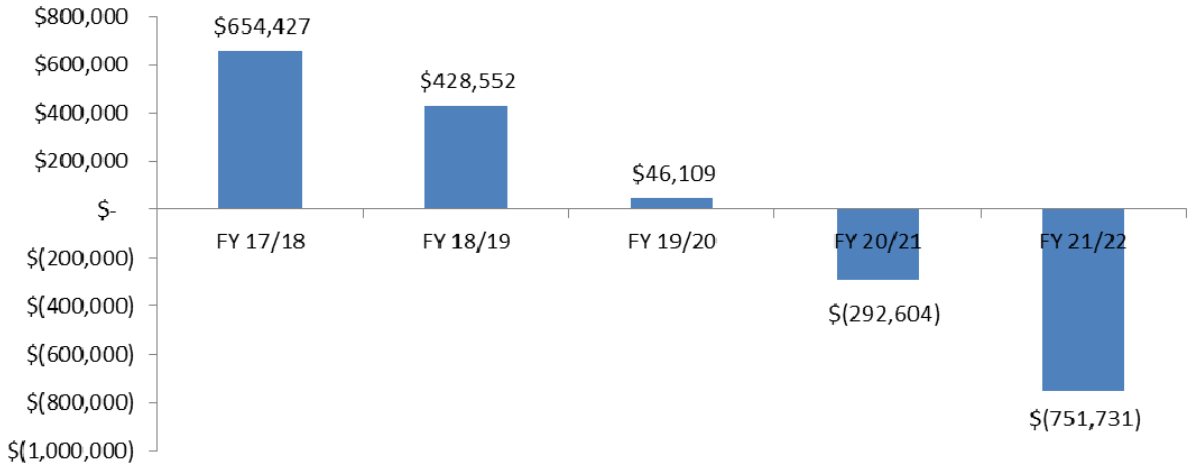
Salmon Projects		Future Projects
Pipeline Prioritization Study	FY 20	$36,000
Tower Repainting – Tower 2	FY 22	$440,000
Subtotal		***$476,000***

Debt Service Expense	FY 19	**$309,120**
TOTAL FY 19 WATER/SEWER CAPITAL EXPENSE		***$678,120***
END WATER/SEWER CAPITAL FUND BALANCE		***$428,552***

Water & Sewer Capital Fund
5-Year Projection
FY 16/17 - 20/21

Balance 3-31-2018 576,672

	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22
Regular Revenue	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
IEPA Loan L175026	$ -	$ -	$ -	$ -	$ -
IEPA Loan L175027	$ 1,500,000	$ -	$ -	$ -	$ -
Transfer From Operating	$ -	$ 500,000			
Transfer From Community Capital	$ -	$ -	$ -	$ -	$ -
Total Revenues	$ 1,530,000	$ 530,000	$ 30,000	$ 30,000	$ 30,000
Expenses					
Grand Avenue Pump Station	$ 496,000	$ -	$ -	$ -	$ -
Phosphorus Analyzer, Pumps, Probes		***$ 80,000***	$ -	$ -	$ -
PLC Replacement - Lift Stations 2-4		***$ 50,000***	$ -	$ -	$ -
Lift Station Upgrades - Stations 9 & 10		***$ 150,000***	$ -	$ -	$ -
Fiber Optics at WWTF		***$ 12,000***			
Pipeline Prioritization Study			***$ 36,000***		
Water Tower Painting		$ -			***$ 440,000***
Flow Paced T-Valves WWTF	$ 47,000	$ -	$ -	$ -	$ -
Lake Water Receiving Facility	$ 683,418	$ -	$ -	$ -	$ -
Well Removal/Take-Down	$ -	***$ 52,000***	$ 50,000	$ 50,000	$ -
Misc. Equipment	$ 20,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Debt Obligations (SE Utilities Extension)	$ 316,823	$ 309,120	$ 301,443	$ 293,713	$ 24,127
	$ 1,563,241	$ 678,120	$ 412,443	$ 368,713	$ 489,127
Available Dollars	$ 654,427	$ 428,552	$ 46,109	$ (292,604)	$ (751,731)



Project Descriptions

Water Meter Replacement ***(Objective 1)***

The Village currently has approximately 4,800 residential utility customers. Roughly 3,100 of those accounts currently utilize a 2007-2008 Neptune water meter. There are roughly 50-60 accounts remaining who utilize the Sensus meters. This project would replace the remaining Sensus meters.

WWTF Phosphorus Analyzer, Flow Paced Pump, and ORP Probes ***(Objective 1)***

We propose the addition of phosphorus analyzers to be installed at the WWTF to aide in the treatment proses for phosphorus removal. The analyzer provides instant results to allow for automatic addition of alum to remove the phosphorus. Along with the Oxygen Reduction Probes, we will be able to monitor the phosphorus 24 hours a day as opposed to once a day allowing a better control of the phosphorus removal. Adjustments would be made instantly according to the results.

PLC Replacement Lift Stations 2, 3, 4 ***(Objective 1)***

The PLC (Primary Logic Controller) acts as the brain of the lift stations. The current PLC is no longer used and parts are not available. We propose the upgrading of these stations to the newer model. This pricing would include replacement of controller, electrical components, start-up and training.

Upgrade Lift Stations No. 9 & 10 ***(Objective 1)***

Lift Station no. 9 is located in Emerald Ridge and receives pumping from Lift Station no. 10 as well as 20 residential and 2 commercial services. This station continuous to experience pumping issue with the pumps clogging from rags disposed from the residents. We have sent letters to the resident advising of this issue but have not seen any improvements. We have looked into putting grinder pumps in but there is not enough clearance under the pumps to install this style of pump. In order to achieve this, the station's wet well would need to be re-configured and the electrical components up-graded.

Lift Station no. 10 is located in Emerald Ridge and serves 21 residential homes. This station continuous to experience pumping issue with the pumps clogging from rags disposed from the residents. We have sent letters to the resident advising of this issue but have not seen any improvements. We have looked into putting grinder pumps in but there is not enough clearance under the pumps to install this style of pump. In order to achieve this, the station's wet well would need to be re-configured and the electrical components up-graded.

Well Removal/Take-Down ***(Objective 1)***

As the Village transitions its water system to Lake Michigan water, some wells will be kept in service for use as an emergency back-up. Those wells not needed for emergency purposes would be taken out of service and removed. This project allocates funding for the removal of unneeded wells.

Extension of Fiber Optics to Rear of Plant ***(Objectives 1,2)***

Currently there are a number of buildings in the rear of the wastewater treatment facility that are not connected to fiber optics, limiting our ability to remotely operate and monitor operations. Connection would increase operating efficiencies.

Pipeline Prioritization Study

This will build on the work started by Wes with the goal of establishing a long-term plan for annual water main replacement. The plan will consider street condition, pipe age, pipe material, criticality, service records/breaks/leaks, among other criteria. The deliverable will be a report and CIP with implementation schedule and costs. The 2006 Water System Study should be updated with water use trends and facility assessments to include a schedule to water tower maintenance and painting. We also included costs to update the computerized hydraulic model. This cost is estimated at $36,000.

Elevated Tank No. 2 Repainting

The tank should be inspected the year prior to the repaint work. We typically generate an inspection report that evaluates the existing coatings to determine if overcoating is feasible and identify other improvements/repairs needed while the tank is out of service.

Interconnection Evaluation

Given the unknowns surrounding the reliability of well #8, pipe improvements needed on the Lake Villa side, potential service to currently unincorporated areas along Deep Lake Road; the Village should look at all these factors before pursuing improvements to the existing interconnection. This cost is estimated at $15,000.

LIFT STATION REPLACEMENT LIST

PUMP STATION INFORMATION

Pump Station No.	Location	Last Station Upgrade	Station Type	Pump Qty.	Type of Controller	Pump Manufacturer & Model	Pump Installed
1	1910 Elmwood Dr.	Upgraded in 1995	Submersible pump w/control room	2	Consolidated Electric HMI Transducer w/backup float controls	8"Flygt Model No. NP-3153.095/2015	2015
2	227 Valley Dr.	2002	Submersible pump w/control room	2	PLTU/Transducer w/backup float controls	6"Flygt Model No.CP3153.091-0410	2012
3	2216 Rolling Ridge Ln.	2002	Submersible pump w/control panel	2	PLTU/Transducer w/backup float controls	4"KJI HydroAire Model No. KSE-5-4T001	2008
4	205 Hickory Dr.	2002	Submersible pump w/control panel	2	PLTU/Transducer w/backup float controls	3" Flygt Model No. CP3085.092	2008
5	3155 Haven Ln.	1995/Upgraded 2005	Submersible pump w/control room	3	PLC/Transducer w/backup float controls	6"Flygt Model No. 3301.185-1470013	99/14/15
6	1136 E. Grand Ave	1987	Package pump station w/dry barrel	2	Consolidated Electric HMI Transducer w/backup float controls	6" Fairbanks Morse Model No. B5444-T40	1987
7	618 Crosswinds Ln.	1997	Submersible pump w/control panel	2	Float Control Only	Hydromatic Model No. S4M1000M3-4 50' cable	1997
8	680 N. Beck Rd.	1991	Submersible pump w/control panel	2	Float Control Only	1 ¼" Barnes Model No. SGVF2032L	2014
9	2595 Emerald Ln.	1991	Submersible pump w/control panel	2	Float Control Only	3" Hydromatic S200M3-4 pump -1 S4N300M3-4 pump-2	2012/2014
10	2455 Emerald Ln.	1991	Submersible pump w/control panel	2	Float Control Only	3" Hydromatic S200M3-4 pump -2 S4N300M3-4 pump-1	2012/2014
11	401 Woodland Trail Ln.	2005	Submersible pump w/control panel	2	Float Control Only	2" Hydromatic Grinder HPGFX300CC 50'cable	2005

Station Upgrade Recommendations – These recommendations should be incorporated into CMOM Plan & Long Term Funding

1. Replace pumps at each station every 10 years – refer to pump install column for guidance.
2. Replace starters and breakers every 5 years at lift no. 1.
3. FY16/17 budget consider replacement of starter and breaker at lift no. 5.
4. Work with integrator to upgrade all operating systems at pump stations. This will eliminate the costs incurred from an engineering firm which isn't necessary for these upgrades.
5. When upgrading of lift nos. 1 and 5 you might want to think about upgrading to VFD controls on the pumps.
6. When performing upgrades on any station think about including adding new level transducer and floats.
7. Recommend new control cabinets for station nos. 8, 9, 10 when upgraded.

PROPOSED UPGRADE YEAR	Pump Station No.	COMMENTS	ESTIMATED COST
2016	6	To be re-bid December 2015	$833,000.00
2017	2	Proposal from Automatic Systems Co. Includes upgrading proprietary telemetry control system and incorporating into SCADA.	$33,000.00
2017	3	" "	$33,000.00
2017	4	" "	$33,000.00
2018	5	This station already has a PLC so upgrading and incorporating into SCADA should be straight forward.	$33,000.00
2018	1		$33,000.00
2019	9	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps. Wet wells will need to be upsized for greater capacity.	$75,000.00
2019	10	"	$75,000.00
2021	8		$33,000.00
2022	7		$33,000.00
2023	11		$33,000.00

Public Works Truck Replacement Fund

The Public Works Truck Replacement Fund providing funds, through contributions from the Street Maintenance and Water/Sewer Operating Funds, for the replacement of Public Works vehicles and major equipment. Village forecasting provides a 20 year projection of the fund including replacement costs and frequency and annual dollars needed to fund the replacements. Below is a general overview of the 20 year projections.

Regular Revenue & Expenses

Revenue

Fund Contributions -	Street Maintenance - $58,050 Water/Sewer - $79,050

Expenses

Vehicle Replacements -	Two SUV's, 1 Pickup, and a Loader at a cost of $132,651
Projected Fund Balance	$48,339

Squad Car Replacement Fund

The Squad Car Replacement Fund provides funds, through contributions from the Police budget, for the replacement of squad cars. Village forecasting provides a 20 year projection of the fund including replacement costs and frequency and annual dollars needed to fund the replacements. Below is a general overview of the 20 year projections.

Regular Revenue & Expenses

Revenue	
Fund Contributions	Police – $73,200
Expenses	
Vehicle Replacements	3 Sedans (Ford Taurus)
Projected Fund Balance	$221,423

Motor Fuel Tax Fund

The Motor Fuel Tax Fund provides revenue for various street maintenance activities including road salt, asphalt and road resurfacing. Road resurfacing is the largest expense in this fund. Revenue received cannot support a recommended 20-year road resurfacing program. The Road Resurfacing schedule. Currently, the 20-year road resurfacing program is under-funded by $4.7 million.

Regular Revenue & Expenses

Revenue	
Motor Fuel Tax	$330,000
Special Allocation	$11,000
Interest	$2,000
Non-Capital Expenses	
Asphalt Products	$17,000
De-Icing Material	$100,000

Annual Dollars Available for Road Resurfacing	$345,000
Annual Dollars Needed for 20-Year Program	$660,000

Summary

December '17 Fund Balance	$694,327
Total Revenue Resurfacing (16/17 – 35/36)	$6.9 Million
Projected Resurfacing costs	$13.0 Million
Available CIP Dollars (16/17 – 35/36)	**-$6.1 Million**

2018 Lindenhurst Proposed Street Resurfacing Schedule

Name	Limits	Approximate Length
Brittany Lane	Beck Road to Red Rock Drive	840 ft.
Carriage Lane	Lake Shore Drive to Beck Road	890 ft.
Colony Avenue	Hamilton Drive to Penn Boulevard	1,550 ft.
Green Tree Court	Lake Shore Drive to Cul-de-sac	550 ft.
Hamilton Drive	Penn Boulevard to Constitution Drive	770 ft.
Monroe Drive	Penn Boulevard to Harbor Ridge Way	1,050 ft.
Red Rock Drive (Alternate)	Brittany Lane to Beck Road	1,510 ft.
Shagbark Lane	Red Rock Drive to Cul-de-sac	200 ft.
Springhill Lane	Lake Shore Drive to Beck Road	870 ft.
Surrey Lane	Northgate Road to High Point Drive	890 ft.
TOTAL		9,120 ft.

Municipal Debt Obligations

Below is a summary of debt payments in the 18/19 Budget and when they expire.

Title	Amount	Fund	Expires	Purpose
2013 Refunding	$100,865	Community Capital	2020/21	Police Facility Construction/Schiessle Settlement
2008	$178,153	W/S Operating	2022/23	Grand Ave. Phase I
2010 IEPA	$44,364	W/S Operating	2030/31	Grand Ave Phase II
2011 Sanitary District	$125,000	W/S Operating	2032/33	WWTF Phase II
2016 IEPA 026	$250,706	W/S Operating	2035/36	Lake Michigan Improvements
2016 IEPA 027	$650,000 (est.)	W/S Operating	2035/36	Lake Michigan Improvements
2016 Debt Cert	$309,120	W/S Capital	2020/21	Southeast Utilities Extension