



Memo

TO: Committee of the Whole
FROM: Ed Andrews, Public Works Director
SUBJECT: Infrastructure Review
DATE: February 9, 2018

Below is a summary of major Capital Improvements Projects (CIP) by the three major funds, Sewer, Water & Streets.

Sewer:

As part of the 2006 Facilities Plan, a review of the sewer rate structure was undertaken with specific focus on the IEPA mandate treatment plant upgrades (Phase 1, 2A & 2B). As such, the sewer fund is the most in line with the expenditures over the past decade. An updated rate study is part of the FY17/18 budget and will help determine how to best approach collection system rehabilitation.

Cured In-Place Liner: The City started embracing this treatment in the last few years with more frequency. During FY 17/18 approximately \$50,000 of lining was done. It would be the recommendation to increase this budget to \$150,000.

Lift station - Phase 2 Upgrades: In FY17/18, 5 of the 6 lift stations were upgraded to PLC controllers. Phase 2 upgrade considerations would be for the addition of variable frequency drives (VFDs) and ultrasonic level sensors allowing the City to further leverage the PLCs at these locations for adjustments of pump runtimes, soft starts and also allow for lowering the operational speed of the pumps to better match demand. Estimate \$90,000.

Phase II B Trunk Line: This project is the follow up phase of the recent Phase 2A expansion of Sewer Treatment Plant #2. This project is programmed at \$5M, with year one construction expenditures estimated at 25% to 50% of this given the size of the project.

Off-lining Sewer Treatment Plant#1: The City is currently operating STP#1 by discharging into the trunk line for added volumetric capacity and to insure no discharge violations from this plant. Costs assumed to be bundled with Phase 2B trunk line, but may need to be broke out in advance to aid in shuttering.

Sewer Treatment Plant #2:

- | | |
|--|--|
| • Stainless blower / air pipeage | \$ 75,000 |
| • Equipment garage (2-High, 2-Std bays) | \$100,000 |
| • Sludge drying bed rehabilitation | \$ 75,000 (possible FY17/18 carryover) |
| • Sludge stockpile paving / laydown area | \$ 35,000 |

Water:

Water revenues are challenged by the ongoing needs. An updated rate study is part of the FY17/18 budget and will help determine how to best approach. The recent adoption of a technology fee in the water rates was applied only to the AMR and has been revenue neutral as intended during its adoption.

Water Treatment Plant 1 Filter Rehab: Change out of the filter media should occur every 5 to 10 years, estimated that this has been > 10 years. Backwash of filter media is taking longer than normal, reducing efficiency of the plant. Vessels are original to plant, backwash creates scour within vessel and reduces metal thickness. This project is estimated at \$300k.

Water Treatment Plant 1 VFDs: Consideration of the addition of VFDs at Wells #8 and now also Well #6.

Water Treatment Plant #1 Levee Protection: The US Army Corps' Hazard Mitigation Program has possible 50/50 matching funding to help in the design and construction of flood protection levees for critical public infrastructure. Federal funding has been volatile in the past year, such that this project is still in the consideration stage with the Corps. This project is estimated at \$310k.

Water Treatment Plant #2:

- Filter Rehab: While WTP#1, filters were more recently rehabilitated in 2006 but are in excess of the recommended frequency. This project is estimated at \$375k.
- Block Wall: this is a carry over the current FY
- Roofing: this is a carry over the current FY

Water Tower #3: The City has two 500,000 water towers, providing elevated storage of 1MGD however the current annual average day demand is 1.2MGD. The addition of a third tower is recommended by IEPA / Ten States Standards. WT#1 constructed in 1959 and WT#2 constructed in 1993. This project is estimated at \$2.5M.

Streets:

The City's 79.5 miles of roadway network represents an \$86M investment in current dollars. An idealized paving program would include a frequency of overlays interspersed between seal coat or over pavement preservation techniques. Seal coat at a 7-year frequency would ideally be applied in years 7 and 14 and an 1.5" mill and overlay planned for Year 21.

General Maintenance (GM): GM is a combination of the current State Motor Fuel Tax (MFT) distribution and additional City General Fund Contribution to undertake the seal coat pavement preservation portion of the Streets program. In the mid 2000's the City began a Seal Coat program to help stretch the frequency between overlays by adopting a This year's Seal Coat program would continue the clockwise progression into Beverly Manor, Hillcrest and portions of Firethorn. This effort is estimated at \$775k with \$350 from State MFT and \$425k in General Fund.

Resurfacing: As previously mentioned, an idealized streets program would see Seal Coat supplemented by periodic overlays and reconstruction. Resurfacing includes milling/removing & replacing the top 1.5 inches of asphalt. Resurfacing candidates in this year's program include:

- 0.22mi of Freedom Parkway from McCluggage to its pavement limits
- 0.50mi of School St from northern City Limit to southern limit
- 0.12mi of Legion from IL Route 8 to past, Seal Coat remainder due to low traffic volumes

This effort is estimated at \$750k due to reduce ADA compliance requirements from recent improvements to Illinois Route 8 and Safe Routes to School along School Street.

Reconstruction: In follow-up to discussions concerning roadway rehabilitation considerations on the east side of the City of Washington, a variety of infrastructure review has been conducted (roadway, water main and sanitary sewer). The initial review was shared at a Special Public Works Meeting in

November of 2017 for discussion in the forthcoming budget cycle and has also been updated to the Committee of the Whole.

A review of these roadways as mapped by FHWA & IDOT on the east side are:

- E. Holland St = 3,829LF, CRS = 7.0, approx. ADT = 600
- Lynn St = 1,282LF, CRS = 6.0, approx. ADT = 550
- Hilldale Av = 3,580LF, CRS = 5.0, approx. ADT = 500
- N. Lawndale Av = 1,998LF, CRS = 4.5, approx. ADT = 1040

The following Local Roads (NOT Federal Aid Eligible) have been previously expressed at Committee level as of interest due to their brick surface:

- W. Holland St = 525LF, est. CRS = 3.0, approx. ADT = <500
- Catherine St = 2,375LF, est. CRS = 3.0, approx. ADT = <500
- Zinser Pl = 931LF (or 120LF from N Main to Lane Alley), est. CRS = 3.0, approx. ADT = <500

Based on these criteria, it would be my recommendation to consider the start of engineering for reconstruction of N. Lawndale in the remainder of FY17/18 and into FY18/19. This design effort was previously estimated by Mohr & Kerr Engineering at \$57,552 and a reconstruction cost of \$1.4M (including a 15% contingency).

The proposed rate study in FY17/18 will allow for Council to evaluate funding mechanisms for underground reconstruction of water and sewer before undertaking construction in a subsequent Fiscal Year.

Total Rate Comparison of Options

		Option 1	Option 2
		Increase Home Rule Sales Tax 0.5%	Increase Home Rule Sales Tax by 0.25% New Food & Bev Tax at 1% Increase Telecom Tax by 1% New Local Motor Fuel Tax at \$0.02/gal
Eating at a restaurant in Washington	Current	As of 7/1/2018	As of 7/1/2018
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	1.25%	1.75%	1.5%
County Public Safety	0.5%	0.5%	0.5%
Food & Beverage Tax	N/A	N/A	1%
TOTAL	8%	8.5%	9.25%
Packaged liquor purchased in Washington			
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	1.25%	1.25%	1.5%
County Public Safety	0.5%	0.5%	0.5%
Food & Beverage Tax	N/A	N/A	1%
TOTAL	8%	8%	9.25%
General merchandise purchased in Washington			
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	1.25%	1.75%	1.5%
County Public Safety	0.5%	0.5%	0.5%
TOTAL	8%	8.5%	8.25%
Gasoline purchased in Washington (assumed wholesale price of \$2/gallon)			
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	1.25%	1.75%	1.5%
County Public Safety	0.5%	0.5%	0.5%
Federal Motor Fuel Tax (per gallon)	\$0.184	\$0.184	\$0.184
State Motor Fuel Tax (per gallon)	\$0.19	\$0.19	\$0.19
Local motor fuel tax (per gallon)	N/A	N/A	\$0.02
TOTAL	\$0.534	\$0.554	\$0.559
Diesel purchased in Washington (assumed wholesale price of \$2/gallon)			
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	1.25%	1.75%	1.5%
County Public Safety	0.5%	0.5%	0.5%
Federal Motor Fuel Tax (per gallon)	\$0.244	\$0.244	\$0.244
State Motor Fuel Tax (per gallon)	\$0.215	\$0.215	\$0.215
Local motor fuel tax (per gallon)	N/A	N/A	\$0.02
TOTAL	\$0.619	\$0.629	\$0.624
Grocery purchased in Washington			
State Sales Tax	1%	1%	1%
Home Rule Sales Tax	0%	0%	0%
TOTAL	1%	1%	1%
Prescription purchased in Washington			
State Sales Tax	0%	0%	0%
Home Rule Sales Tax	0%	0%	0%
TOTAL	0%	0%	0%
Vehicle purchased in Washington			
State Sales Tax	6.25%	6.25%	6.25%
Home Rule Sales Tax	0%	0%	0%
TOTAL	6.25%	6.25%	6.25%

Sales Tax Rates for Other Regional Cities:

Washington	Base Rate	8.00%
	City Share of tax rate	1.25%
Bartonville	Base Rate	8.25%
	City Share of tax rate	1.50%
Canton	Base Rate	8.25%
	City Share of tax rate	0.50%
East Peoria	Base Rate	8%
	Farm Creek Area BD	
	(Altorfer, Bass Pro, Camp, N. Main, Riverside - 257 properties)	9%
	Costco Area BD	
	(Center, Commercial, Edmund, Richland, W. Washington - 282 properties)	8.5%
	Target Area BD	
	(Altorfer, W. Camp, Clock Tower, Spinder, W. Washington - 335 properties)	9%
Morton	City share of tax rate	1.25-2.25%
	Base Rate	6.75%
	Morton BD	
	(76 streets - 974 properties)	7%
Pekin	City share of tax rate	0-0.25%
	Base Rate	8.5%
Peoria	City share of tax rate	1.75%
	Base Rate	9.00%
Peoria Heights	Hospitality Improvement Zone BD	
	(Fulton, Hamilton, Kumpf, Main, Adams, Jefferson, Madison, Monroe, 4th, Garrett - 52 properties)	10.00%
	City share of tax rate	2.25-3.25%
	Base Rate	8.75%
Bloomington	Inside PH BDD No. 1	
	(Toledo, Marietta, Seiberling, Sciota, Moneta, Kelly, Lake, Prospect, Voss - 55 properties)	9.75%
	City share of tax rate	1.5-2.5%
	Base Rate	8.75%
Champaign	City share of tax rate	2.5%
	Base Rate	9%
Danville	City share of tax rate	1.5%
	Base Rate	9.25%
Decatur	City Share of tax rate	2.75%
	Base Rate	9.25%
	City Share of tax rate	1.5%

Galesburg	Base Rate	8.75%
	N. Seminary Street BD (2 properties)	9.75%
	City share of tax rate	1-2%
Lincoln	Base Rate	8.25%
	City share of tax rate	0.50%
Moline	Base Rate	8.50%
	Avenue of the Cities/27th St. BD	9.50%
	City Share of tax rate	1.25-2.25%
Normal	Base Rate	8.75%
	City share of tax rate	2.5%
Pontiac	Base Rate	7.25%
	Vermillion Plaza BD (17 properties)	8.25%
	City Share of tax rate	0-1%
Rock Island	Base Rate	8.5%
	City Share of tax rate	1.25%
Springfield	Base Rate	8.5%
	South Central BD	
	Legacypointe, Lincolnshire, Macarthur - 28 properties)	9.5%
	City share of tax rate	2.25-3.25%
Urbana	Base Rate	9%
	City share of tax rate	1.5%

Regional Food & Beverage Tax				
<u>Municipality</u>	<u>Tax</u>			
Bloomington	2%			
Champaign	1.75%			
Danville	1%			
Decatur	2%			
Galesburg	2%			
Moline	1.5%			
Normal	2%			
Pekin	2%			
Peoria	2%			
Peoria Heights	2%			
Rock Island	1.5%			
Urbana	1.5%			

Regional Gas Taxes

<u>Municipality</u>	<u>Rate per Gallon</u>	
Bloomington	4 cents	
Champaign	4 cents	
Danville	8.3 cents	
Decatur	5 cents	
Galesburg	4.5 cents	
Moline	1 cent	
Normal	4 cents	
Pekin	4 cents	
Peoria	4 cents	
Peoria Heights	2 cents	
Rock Island	2 cents	
Urbana	5 cents	

Regional Telecommunications Tax

<u>Municipality</u>	<u>Total Rate</u>			
Washington	12%			
Bartonville	11%			
Canton	12%			
Chillicothe	13%			
Decatur	13%			
East Peoria	13%			
Eureka	8%			
Germantown Hills	7%			
Metamora	10%			
Morton	13%			
Pekin	13%			
Peoria	13%			
Peoria Heights	12%			
Bloomington	13%			
Champaign	13%			
Danville	13%			
Galesburg	12%			
Lincoln	13%			
Moline	13%			
Normal	13%			
Pontiac	13%			
Rock Island	13%			
Springfield	11%			
Urbana	13%			