CITY COUNCIL WORKSHOP AGENDA
THURSDAY, JANUARY 23, 2020 – 4:00 PM

1. **CALL TO ORDER**

2. **ATTENDANCE**

3. **PUBLIC COMMENT** (Agenda Items Limit 3 minutes)

4. **DISCUSSION ITEMS**
   - A. Lucy/Water Street re: flooding
   - B. FY 20/21 re: budget millage rate levy & financial forecast
   - C. FY 19/20 re: Priory Project Status
   - D. 01-27-2020 City Council Agenda Item Review

5. **OTHER ITEMS OF DISCUSSION**

6. **PUBLIC COMMENT** (Limit 3 minutes)

7. **COUNCIL COMMENT**

8. **ADJOURN**

MEMO

To: **Kirk Harrier, City Manager**
City of Saugatuck

From: **Jon Moxey, PE**
Paul Galdes, PE
Fleis & VandenBrink

CC:

Date: **October 3, 2019**

Re: **Roadway Flooding**

In recent months, we have reviewed several options to alleviate flooding at the corner of Lucy & Water Street and at the south end of Butler Street due to the elevated water levels on the Kalamazoo River (controlled largely by Lake Michigan). A summary of the options follows:

Option 1 – Raise the Roadways:

1. To maintain road drainage on Water Street, approximately 150-175 feet would need to be reconstructed (replacement of curb & gutter, asphalt pavement and gravel base) from Lucy Street to midway between Lucy and Spears Street. The Lucy Street intersection would need to be raised approximately 18 inches to adequately redirect surface water to the south. Similarly, raising the intersection would require reconstruction of Lucy Street from Water Street to Butler Street, approximately 200 feet. We estimate the cost to reconstruct approximately 350 feet of roadway itself (curb to curb) to be on the order of $100,000.

2. Raising the roadway will obviously impact other features in and adjacent to the right of way – drainage, sidewalks, parking, etc. Typically, roads are designed so property on either side drains to the road. The storm sewer system would need to be expanded fairly substantially to provide drainage for areas that currently drain toward the road. By raising the road, many sidewalks and driveways would be reversed to slope away from the road, thereby trapping water behind the curbs. We would recommend budgeting an additional $100,000 for grading, storm sewer improvements, sidewalk and driveway replacement, etc. The expanded storm sewer system will have increased maintenance implications, even after the water level returns to more historically normal conditions. It is likely easements and/or grading permits would be required to accomplish the drainage work outside the road, and associated costs are not included here.

3. Grading associated with raising the road will most likely require removal of mature trees and landscaping in the area.

4. Raising the south end of Butler Street would involve less road reconstruction work, but would still require a substantial amount of work outside the roadway to address parking,

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

sidewalks, access to adjacent properties, etc. We estimate the cost for Butler Street to be on the order of $100,000 (total).

Option 2 – Pump System:
Another option to mitigate flooding on the roadways would be to install a pumping system to convey the water to the river. There is a range of potential systems/setups to consider:

1. Pumps would be sized larger than what has been used to this point at Lucy & Water Street. For the pumping to be effective, the storm sewer outlets would need to be plugged to avoid simply drawing in water from the river (creating a "short circuit"). **Keep in mind that plugging the outlets could cause flooding in areas that are not currently experiencing problems.** The outlet at Lucy & Water Street drains Lucy Street almost to Holland Street. The Butler Street outlet drains the area up to Mason Street. Given the unpredictable nature of weather, a rain event that causes flooding could occur regardless of the pump size selected. The risk is reduced as pump capacity is increased, however, the capital and operational costs increase.
2. Pumps could be operated manually, requiring the DPW (or other personnel) to closely monitor the forecast and be on site during rain events, or with an automated system. An automated system could include a rain sensor, water level monitoring, alarms, remote control capabilities and other enhancements.

We'd recommend budgeting $15,000-20,000 for a manually-operated pump setup or $75,000-100,000 or more for an automated system (depending on the specific equipment included) per location. The City should also budget for operational costs (labor, power, maintenance, etc.) during the anticipated use of either system.

The City should anticipate operational challenges during the winter months. Steps will need to be taken to prevent various aspects of the system from freezing. It may be possible to suspend operations once the ground freezes and the likelihood of rain events diminishes, but the system will need to be ready for "rain on snow" events in late winter, as those events can be especially problematic from a drainage standpoint.

Other Thoughts:

1. Saugatuck is obviously not the only lakeshore community dealing with this issue. There are a number of roads, boat launches and other public spaces temporarily closed until the lake level returns to a more normal elevation. Some communities are contemplating making the substantial investment to raise vital roads with high traffic counts. Pumps are being deployed in a number of locations around the state. But we haven't come across any "outside-the-box" solutions that would apply here.
2. The water level of Lake Michigan peaked in July and has since been subsiding (a typical occurrence in the fall season. Attached is the projection from the US Army Corps of Engineers, to help visualize the recent and potential future trends.
3. Even in their submerged condition, the storm sewers are functioning. When it rains, the water level in the upstream reaches of the system raises and gravity "pushes" water through the system. Their capacity has been greatly reduced, but the sewers are still functioning. Plugging the outlets eliminates the contribution of the gravity system and relies entirely on pumping to prevent upstream flooding.
4. If the current trend continues, the water level may be lower than the road surface prior to temperatures dropping low enough for long enough to freeze water on the road. If that is not the case (and Ice does form), it may be possible to use salt/sand and traditional winter maintenance activities to clear the roadway.

MEMO

To: Saugatuck City Council

From: Kirk Harrier—City Manager

Date: January 22, 2020

Re: FY 20/21 Millage Rate Levy & Financial Forecast

OPERATING MILLAGE RATE

- FY 20/21 projected City operating millage rate maximum due to Headlee Rollback **11.1800**
- FY 19/20 maximum rate was 11.4788
- FY 20/21 projected 1 mill generates $167,000 in revenue
- 2019 taxable value $162,136,249
- 2020 projected taxable value $167,000,000

NON-OPERATING MILLAGE RATES

Voted Local Roads Millage

- Approved by voters in 2016 with a rate of up to 2 mills
- FY 20/21 projected extra-voted local roads millage rate maximum due to Headlee Rollback is **1.8200**
- The extra-voted local roads millage will expire in 2031

Voted Road Bond Debt Millage

- Approved by voters in 2008
- FY 20/21 projected millage rate required to support the bond payment is **1.4000**
- The voted road bond debt millage will expire in 2028

MILLAGE RATE LEVY

FY 20/21	MILLS	REVENUE	*Avg. Cost To Taxpayer
Charter Operating	11.1800	$1,898,352	$2,236
Local Roads	1.82000	$312,318	$364
Road Bond Debt	1.4000	$232,050	$280
TOTAL LEVY	**14.4000**		

**Based on a property with a $200,000 taxable value ($400,000 market value)*

FY 19/20	MILLS	REVENUE	*Avg. Cost To Taxpayer
Charter Operating	11.4788	$1,861,130	$2,295
Local Roads	1.8885	$306,194	$378
Road Bond Debt	1.4000	$227,000	$280
TOTAL LEVY	**14.7673**		

**Based on a property with a $200,000 taxable value ($400,000 market value)*

VOTED ROAD MILLAGE FINANCIAL FORECAST

Year	Est. Taxable Value	Actual Taxable	Mills	Act Mills	Est. Revenue	Actual Revenue
2017	$143,225,139	$142,267,758	1.9656	1.9656	$281,523	$279,641
2018	$147,521,893	$149,617,764	1.9476	1.9581	$287,314	$292,966
2019	$151,947,550	$162,136,249	1.9296	1.8885	$293,198	$306,194
2020	$156,505,976		1.9116		$299,177	
2021	$161,201,156		1.8936		$305,251	
2022	$166,037,190		1.8756		$311,419	
2023	$171,018,306		1.8576		$317,684	
2024	$176,148,855		1.8396		$324,043	
2025	$181,433,321		1.8216		$330,499	
2026	$186,876,321		1.8036		$337,050	
2027	$192,482,610		1.7856		$343,697	
2028	$198,257,089		1.7676		$350,439	
2029	$204,204,801		1.7496		$357,277	
2030	$210,330,945		1.7316		$364,209	
2031	$216,640,874		1.7136		$371,236	
					$4,874,016	$878,801

JANUARY 22, 2020 FUND BALANCES

- General Fund $1,992,500
  Parks $1,000,000

- Major/Local Street Fund $1,765,000

- Water/Sewer Fund $637,500