

CITY OF LANSING

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WORK SESSION AGENDA

September 29, 2016

Thursday

7:00 p.m.

Lansing City Hall

Call To Order:

- I. Public Works Infrastructure Master Plan
Adjournment
-
-

WORK SESSION SUMMARY

TO: Tim Vandall, City Administrator 
FROM: Sarah Bodensteiner, City Clerk 
DATE: September 19, 2016
SUBJECT: Agenda Summary

- I. **Public Works Infrastructure Master Plan**
 - Staff will be present to review and discuss the Public Works Infrastructure Master Plan.
 - II. **Adjournment**
-

WORKSESSION ITEM

TO: Tim Vandall, City Administrator 
FROM: Jeff A. Rupp, Director of Public Works 
DATE: September 19, 2016
SUBJECT: Infrastructure Master Plan

Issue: The City's infrastructure must be maintained at a level of service that will provide a good quality of life for the residents of the City of Lansing.

Background: The Public Works Department has identified numerous maintenance projects. It is proper to re-examine the current status of the public infrastructure at large and begin the process of addressing these multi-layered problems with a team approach toward best management practices

1. Distributed prior to the meeting is a printed copy of the Infrastructure Master Plan for the City Council's review and use.
2. A brief Power Point presentation using excerpts from this plan will be discussed:
 - Public Works Overview
 - Executive Summary of Public Infrastructure Issues
 - Budgetary Constraints
 - Financing Options
 - Policy Discussion
 - Ten-Year Plan and additional Major Capital Projects Funding
3. Professional Engineering Consultants to discuss Desoto ROW.

Action: Consider an Infrastructure task force to review issues with Staff and assist in making recommendations to the full City Council.

WORKSESSION ITEM



INFRASTRUCTURE MASTER PLAN

A Balanced Approach



SEPTEMBER 29, 2016
Work Session
Lansing Public Works Department

Executive Summary

This infrastructure master plan is an effort to present information about the City's current infrastructure conditions. The monetary value¹ of needed repairs or upgrades does challenge the current revenue stream capability to meet the needs and therefore presents the City with the necessity to formulate the best way to proceed toward Best Management Practices.

The current infrastructure deficiencies are near \$9 Million in valuation using *2016-dollar value* estimates. The amount of funding required for the projects will be a significant challenge for the City of Lansing to provide.

Inventory of existing Street and Stormwater issues as well as current best estimate costs to repair and rehabilitate have been provided.

The scope of the problems is such that the Public Works Department is requesting assistance from Council members to become voluntary participants of an informal *Infrastructure Steering Task Force* to review and assist in creating guidance documents, policies, best management practices and make short-mid-and long-term recommendations that Public Works will present to the City Council based on these and other considerations.

CIP TASK FORCE

The Task Force might be comprised of some Council members and others (i.e. City Administrator, City Engineer, Public Works Director, Finance Director and possibly Bond Counsel). The City Council may want to consider adopting *formal policies* to guide the City's capital improvement process and infrastructure debt management.

LONG-TERM GOAL CONSIDERATIONS

Solicitation from residents and businesses is a valuable option in order to create a more inclusive project list. In the Long-term, it may be profitable to expand this into a City-wide service review done by a professional firm. A long-term goal could include an outsourced infrastructure *study*².

¹ **Streets** \$5,413,000 + **Stormwater** \$ 844,600 + **Bridges** \$210,000+= \$6,467,600 + \$ 2,200,000.00 Major CIP = **\$8,667,600**; + **Miscellaneous CIP** \$602,000 = **\$ 9,269,600** [Not Including the unfinished Culvert Study findings].

² A long-term goal to be accomplished by an engineering study and would likely cost around \$500,000 [not recommended at this time]

Introduction

The Public Works Department's evolving business plan is guided by the "City's Vision for the Future. "

Our emphasis is to address *Community Focus Areas* while operating the core Public Works Department's functions which are Administration, Streets, Signalization, Bridges, and Stormwater Management.

In order to adapt to emerging issues, Public Works has created a business approach. This business plan is based on a holistic, creative, and collaborative approach to solving problems. It also requires that we seek a balanced approach to deliver projects, programs, and services in a way that ensures the long-term health and well-being of the community we serve.

Holistic Balanced Approach

Challenges facing us in the next several years include growth, limited resources, regulatory changes, aging infrastructure, managing stakeholder communication expectations and evolving workforce dynamics. In order to adapt to these emerging issues, the Public Works Department is developing this business plan approach.

A balanced methodology is designed to translate our mission statement and overall business strategy into specific, quantifiable goals and to monitor performance in terms of achieving these goals.

Values

- Cooperation, Collaboration and Communication, through trusting relationships and a commitment to a shared vision.
- Efficient Use of Resources, through minimizing costs and maximizing intradepartmental coordination.
- Technology and Innovation, through automation of manual processes, refinement of existing technology and implementation of innovative practices.
- Customer Satisfaction through knowledgeable, dedicated and friendly staff who provide timely and accurate responses.
- Proactive Planning through developing short- term and long-term plans for public infrastructure and resources.
- Attention to the appearance of the built environment, including public infrastructure.

Major Service Areas

The Public Works Department is comprised of the following core functions: Administration, Development, Streets, Signalization, Bridges, and Stormwater Management.

CORE FUNCTIONS

Street, Curbing, Sidewalk Ratings

Mill and Overlay

Curb and Sidewalk
Repairs & Replacement

Full Replacement Streets

New Sidewalk Installation

Signalization Maintenance

Street Signs

7 Bridges

Inspections, Repairs, & Replacement

Stormwater

Policies

Study

Drainage Areas

Regional Detention

Overland Conveyance

Arterial and Collector Structures
Inspections & Repairs

Administration

The Public Works Administration directs and manages the Department to align with City and department values, vision, mission and policies. Administration also participates in the Capital Improvement Plan and special projects as assigned by the City Administrator, and communications with City Council.

Infrastructure Management

Infrastructure Management focuses on the design, construction, inspection and major rehabilitation of facilities and infrastructure while ensuring these assets are functional, durable and cost-effective.

Compliance with current engineering standards occurs in a manner consistent with City Council policy.

Infrastructure Management provides the following Major Service Areas:

Capital Planning

CIP Management

- o Streets
 - Street Preservation
 - Street Mill and Overlay, or Replacement
 - Curbing Repairs and Replacement
 - Sidewalk Repairs Replacement
 - Storm Inlet and Pipe Repairs
 - Street Sign Maintenance
 - Bridge Maintenance

- o Facilities
 - Maintenance
 - Replacement
 - Line Locates

Development Review

- o Plan Review
- o Inspection Services

Stormwater Management and Maintenance

- o Flood Mitigation
- o Ditching
- o Culvert Repairs and Replacement

Operations and Maintenance -

Transportation Engineering (outsourced) i.e. Traffic Studies

Traffic Signal Operations and Maintenance (partially outsourced) Operation Green Light and Maintenance Vendors

Street Light Operations and Maintenance (outsourced, WESTAR) In-House Coordination

INFRASTRUCTURE MANAGEMENT METHODOLOGY

Project Identification and Valuations
Lansing Budgetary Constraints
Project Financing Options and Recommendations
Short- Mid-and Long-Term Plans

Project Identification and Valuations

The Ten-Year plan provides for current project identification and current values assigned for known projects. The current valuation of known maintenance projects is nearly **\$9 million dollars** [excluding CIP Designed Road Projects].

Lansing Budgetary Constraints

Lansing's current CIP Budgeting Revenue stream rounded upward is averaging \$700,000³ per year. Of that amount an average \$638,000⁴ has been historically allotted for Capital Improvement projects and related project funding. See following table for historical trend. Capital budgeting for bridge repairs should be included in future budgets.

Present valuation of projects [excluding Desoto Road and Eisenhower Road projects] in 2016 dollars is as follows:

Street Related Projects	\$5,413,000	included in Ten- Year Plan
Storm related projects	\$ 844,600	included in Ten- Year Plan
Bridge Related	\$ 210,000.00	maintenance included in Ten- Year Plan
Major CIP	\$2,200,000.00	NOT Included in Ten-Year Plan
Miscellaneous CIP Items	<u>\$ 602,000</u>	NOT Included in Ten-Year Plan
	\$ 9,269,600	

³ Using the following chart most recent six years' history annual CIP *revenue averaged* = \$670,737.33

⁴ Drainage=\$21,614; Street Contract \$482,705.83; Sidewalk \$9,980; Road Projects \$ 111,885; Drainage Maintenance \$11,819

**CAPITAL IMPROVEMENTS
FUND 70**

	2011 ACTUAL	2012 ACTUAL	2013 ACTUAL	2014 ACTUAL	2015 ACTUAL	2016 ADOPTED BUDGET
Beginning Fund Balance	403,041	77,578	39,562	8,135	32,355	47,132
Revenues						
Dept: 009 REVENUES						
34010 SIDEWALK REVENUES	0	0	0	700	1,875	0
36110 INTEREST ON IDLE FUNDS	120	57	10	4	7	0
39000 REIMBURSED EXPENSES	0	0	17,935	26,029	2,153	52,000 *
39100 MISCELLANEOUS REVENUES	100	0	0	0	0	0
39900 TRANSFER FROM GENERAL	200,000	400,000	470,833	486,000	712,500	700,495
39930 REIMB. FROM CAPITAL	131,283	194,482	46,730	258,060	323,051	0
Total Revenues	331,504	594,538	535,508	770,793	1,039,586	752,495
Expenditures						
Dept: 010 ADMINISTRATION						
41168 SIGNAL LIGHTS	0	0	0	24,399	72,915	4,000
43309 TRAIL EXPENSES	0	0	25,080	273,039	0	0
43311 ECONOMIC DEVELOPMENT	50,000	0	0	0	0	0
43316 DRAINAGE MAINTENANCE	2,045	17,463	10,207	28,220	35,000	36,750
43320 STREET CONTRACT	365,902	494,035	468,769	420,243	578,286	560,000
43322 SIDEWALK CONSTRUCTION	13,400	14,070	0	0	16,136	16,275
43325 DESOTO RD PROJECT	207,404	81,987	58,796	674	1,564	0
43327 GAMBLE STREET	0	0	0	0	320,908	0
43334 CURB REPLACEMENT	0	25,000	0	0	0	38,850
43335 DRAINAGE CONTRACT	18,215	0	4,083	0	0	48,620
Total Expenditures	656,966	632,555	566,935	746,573	1,024,809	704,495
Ending Fund Balance	77,578	39,562	8,135	32,355	47,132	95,132

* Funds from Federal Funds Exchange for Gamble St reconstruction

Project Financing Options

-Pay-as-You-go Funding – Current Funding Method

Pay as you go funding involves allocating a portion of the annual budget for capital improvement expenditures. It does not rely on any debt financing and is limited by revenue sufficiency, reliability and priority when in competition with other needs. The major drawback of the *-Pay-as-You-go Funding* approach is that competing demands for annual appropriations virtually rule it out as a reliable source of funding for major capital improvements, land acquisition, and large pieces of maintenance equipment.

A major increase in funding for capital improvements on a *Pay -as -You- go* basis could only be achieved by reducing appropriations to other programs, increasing taxes or other revenues, or both. Even if such a shift in priorities might be made in one year, it could just as easily be reversed in the next. This lack of stability from year to year makes it difficult to plan a thoughtful and coordinated program of system improvements based on the *Pay -as -You- go Funding* approach.

The development of an effective infrastructure maintenance plan may be delayed as monies are accumulated or when projects are deferred. The eventual construction costs may rise due to the effects of inflation.

The *Pay-as-You-go Funding* approach is most suitable for small, routine and relatively inexpensive projects. The potential impact of the *Pay-as-You-go Funding* approach is difficult to predict. The distribution of costs among various sectors of the community would depend on the make-up of the funds allocated to the projects. A substantial increase in the *Pay-as-You-go Funding* for infrastructure projects might necessitate a reduction in funding for other municipal programs or projects, which would have both direct and indirect financial impacts on the community.

The equity of paying for projects through *Pay-as-You-go Funding* approach is directly tied to the sources of the funds allocated through the budget process. Equity of the *[excluding CIP Designed Road Projects]* *Pay-as-You-go Funding* approach is also relatively low because current customers pay for long lived facilities that provide benefits to future customers at little or no cost.

Impact Fees

Impact fees, or system development charges are one time assessments charged to new or re-development to help offset expenditures for major facilities required as a result of new or re-development. If impact fees are properly determined, the equity of cost recovery is significantly high. Impact fees require resources to be implemented and administered. Since impact fees have been extensively litigated, the calculation of impact fees should be researched and documented thoroughly. Once implemented, accounting and administrative procedures must be established to ensure impact fees are collected for new or re-development. This issue is currently under review by the City Attorney at the time of this writing.

Revenue bonds

Revenue bonds pledge a specific non-tax revenue stream, such as project operating revenues, as the source of repayment. A number of factors, including legal debt limits, market access, and the voter approval process, can limit the amount of general obligation or revenue bonds that a public entity may issue.

Stormwater User Fee

Referencing an engineering stormwater survey⁵ the survey results provided that respondents financed their capital improvement needs using:

69% Cash Financed 58% from user fees 3% from ad valorem taxes 31% debt financed

8% from other sources 10% G.O. Bonds 11% Stormwater revenue bonds

2% Combined stormwater bonds 8% Other (e.g., sales tax bonds, reserve borrowing)

In answer to what the user fees were designed to pay for:

8% Operation and Maintenance 1% Capital Improvements only 91% Both O&M and CIP

In answer to the question, should one-time impact fees/capital recovery fees be applied to new stormwater utility customers or new development, the answers were:

81% No 19% Yes

Funding Source Considerations

User Fee Options

User fees, by definition, must relate to the quantity of service used by each “customer”. For stormwater programs, services can be measured in terms of stormwater quantity, stormwater quality, and customer. Quantity costs are those related to the amount of stormwater runoff generated. Quality costs would be those costs, if any, which relate to the level of pollutants in runoff from specific classes of customers. Customers costs are the costs of billing and collecting user fees. Several rate parameters may be used to recognize stormwater flow volumes, and the methodology is generally dependent on available customer billing data and local conditions.

⁵ Black & Veatch Study, Raymore Missouri

Equivalent Residential Units [Recommended if chosen to be implemented]

Nearly all local governments calculate their stormwater fees in the same manner.

A basic approach to stormwater is to use the average single family residence as a reference point for stormwater utility service requirements and charges. All single family residences are typically charged the average rate and other customers are charged using parameters which are related to the average single family residence. Rates may be stated in terms of a charge per equivalent residential unit (ERU).

A sampling of City residential property could be measured for impervious surface which could then be averaged. This would come to be an average amount of square feet that would be considered one ERU (Equivalent Residential Unit). Each single family home property owner would pay a flat fee based on one ERU per property. The fee for non-residential property depends on the amount of impervious surface on the property. The amount of impervious surface on such properties is measured and the total is divided by the average residential surface area resulting in an assigned ERU value for each property. Thus a non-residential property could contain only one ERU or many ERUs. The fee is multiplied by the number of ERUs to determine that property's monthly fee. Non-residential properties include, but are not limited to, commercial centers, industrial complexes, schools, and government offices.

Staff collected some regional stormwater fees and methodology from the following cities:

They all charge per Equivalent Residential Unit (ERU).

Overland Park charges \$2.00 per month

Lenexa charges \$9.00 per month.

Shawnee charges \$3.00 per month, but is planning to raise that in the near future.

- Shawnee is in the process of obtaining more stormwater revenue; they're looking to bond some of the projects and also thinking of raising the mil levy.

Following is an example of the scale of revenue a stormwater user fee could potentially generate and is based on current Lansing data*.

Assuming an ERU method of rate calculation.

The average industrial or commercial customer ranges between 5 and 10 ERU's

Assumptions: Charge per ERU per month= \$1.00

Single and Multi-Family, condos, mobile home = 1 ERU
 1 Business Customer = 5-10 ERU's
 Residential number of Customers = 3528*
 Business number of Customers = 276*

Potential Range of Revenue Calculated:

	<u>5 ERU/Business Customer</u>	<u>10 ERU/Business Customer</u>
Residential:		
3528*\$1.00*12	=\$42,336	
3528*\$1.00*12		= \$42,336 (placed here for addition only)
Business:		
276*5*\$1.00*12	= \$16,560	
276*10*\$1.00*12	_____	=\$33,120
Potential Revenue	= \$58,896	=\$75,456

Because of the significant differences in the ratio of impervious area to gross property area, both within and among classes of customers, the ERU method of rate calculation is recommended for small systems like Lansing's where the cost of implementing and administering a more complex rate methodology would result in significant increases in the user fee.

TOTAL AREA

Total property area is the most basic parameter for estimating stormwater flows. The data is often readily available in the tax assessor's database and it may be reasonable to equate stormwater flow characteristics with area in some situations. Such situations would include stormwater utilities where the overall expenditures are relatively small and where a more complex billing system would significantly increase overall utility expenses. If there was sufficiently similar density of development it may be possible that all properties could reasonably be treated as having the same runoff characteristics.

Studies have shown, however, that significant differences exist in the volume and rate of runoff from impervious versus pervious areas. Runoff also varies depending upon soil conditions, ground cover, and slope. A fee system based only on total area may be suitable for an interim fee, but the equity of such a fee would be minimal.

TOTAL IMPERVIOUS AREA

The total impervious area of a property is frequently used as the measure of the quantity of stormwater flow. Usually, tax assessors' databases contain information which can be used to indicate impervious area, however, this data is not always readily retrievable by computer searches and considerable effort may be needed to construct the impervious data records manually. Effort to construct impervious area to supplement tax records may involve takeoffs from maps or aerial photographs and onsite visits, all of which may be both time consuming and costly.

Using impervious area as a billing system parameter at least implicitly assumes that either there is very little runoff from the pervious area or that the property is not responsible for runoff from pervious areas since it would have occurred regardless of the property's development. In the design of stormwater billing rate, it must be recognized that there are many factors which determine the relative runoff rates from pervious areas including rainfall intensity and duration, soil type, and depth to groundwater. We know that for rainfalls with high intensity and duration that the rate of runoff from pervious areas will approach the rate from impervious areas. So, it may not be appropriate to charge for only impervious areas. Because of such instances, it may be most appropriate to charge one rate or possibly provide a lower rate for pervious areas.

Policies

The City Council may want to create policies that help guide staff in how to handle various matters that are currently not fully determined.

One area of concern has to do with Stormwater Management. The City has the responsibility to manage corporate storm drainage watersheds, but in many areas where drainage problems are occurring, there are no public easements for access or municipal maintenance responsibilities. This sometimes leaves the adjoining property owners to work out solutions, and find funding for a given project with little assistance currently being provided by the City. In some cases, this scenario is aggravated by the fact that the same conveyance creek, stream or channel may have public easements in other nearby areas.

Should the City seek to obtain public easements for these problems, it would likely imply City action.

If public easements are sought for all conveyance tributaries, this would provide needed access to provide some City proffered relief, but having access capabilities will also exponentially increase needed funding for identified projects.

Short- Mid-and Long-Term Plans

Public Works Administration has made its best attempt to create an intermediate Infrastructure Plan with the anticipation of a more studied revision to be forth-coming based on the advice of the City Council and other professionals as deemed pertinent by steering participants in order to create the final guiding document for the Short- Mid-and Long-Term.

Need for City Council Budgeting Guidance

The following *draft* 10-year plan is respectfully submitted for the City Council's review. It is based from known stormwater, and bridge maintenance projects. Additionally, for each budgetary year, a street repair dollar value has been created from previous departmental project ratings, but the plan must remain adjustable based on current conditions of the infrastructure, available financing, and sometimes public interest superseding the planned or given sequential order. The department is currently in the process of updating street measurements and condition ratings. Therefore, individual streets have not been listed as the planned order may change after this work is complete; however, the annual total budgetary dollar value number is based from current rating information and the other known projects that helped create a recommended CIP annual allotment of specified CIP budget dollars.

The Public Works Department is seeking Council review with necessary budget advice amendments to follow this intermediate strategic effort with a modified final plan.

The intermediate plan and the final plan should serve as a living guidance document as projects will be added as they are discovered as well as some taken from the *plan list order* as projects are completed or reevaluated to a later year. Amendments will likely become necessary for this interim plan as will the document superseding this plan.

In the past a 'worst first' approach had been used as the primary method to determine which Capital Projects would be improved each year. While ensuring the most damaged infrastructure are addressed first may seem a sensible way to select infrastructure repairs, it is not always the most effective way to improve the system overall. Focusing only on the most severe project repairs results in the costliest repairs, meaning fewer infrastructure repairs are completed each year. As a result, over the years many projects have fallen into a severely deteriorated condition, resulting in an overall decline in the condition of the entire paved road and stormwater system. The infrastructure has been deteriorating at a much faster rate than they could be fixed.

A new approach that we believe provides more flexibility, would be to refresh the street, curb and sidewalk rating systems in order to create the best possible condition assessment with the flexibility to choose projects that are financially affordable and provides the most system sustainability in a budget year. Additionally, to enhance this balanced approach it is recommended to assess and if warranted periodically include new construction for the Lansing Community's quality of life and systems enhancement.

Project components in this Ten-Year plan may be substituted with higher value projects in a given budget year, but will not increase the overall budgetary amounts set forth.

\$750,000 annually is the recommended budget amount for this plan excluding Major CIP.

TEN-YEAR PLAN

Recommendation is a flat \$750,000 per year

TOTAL 2017 CIP BUDGET \$628,450

TOTAL 2018 CIP BUDGET \$721,000

TOTAL 2019 CIP BUDGET \$\$643,000

TOTAL 2020 CIP BUDGET \$697,000

TOTAL 2021 CIP BUDGET \$728,000

FIVE-YEAR REHABILITATION PROJECTIONS

2017 STREETS \$472,000

2017 Stormwater Projects

Kay St. between 2nd & 3rd \$100,000
109 to 301 W. Ida Street Culvert \$ 45,000
\$145,000

Replace CMP with RCP, make channel
Bank Stabilization

2017 Bridge Maintenance

LB-1 **\$11,450**

Is located near the Catholic Church south on Desoto Road over 7-mile creek south of Ida. There is work needed to stabilize the bridge until the second phase of the Desoto Road Project comes about and will, within that project, replace it. The reason for the necessary work has to do with the way the bearing support beams that lay against the bridge abutments have worn and are fatigued. We are determining with engineers whether we can perform the welding work required in-house or if it needs to be outsourced. The beams need to be painted after the fact. Needs riprap placement.

TOTAL CIP Budget 2017 \$628,450

2018 STREETS \$569,000

2018 Stormwater

130 Jayhawk Ct. \$27,500
300 E. Lois \$27,500
2nd St. & Kay St. \$14,000
3rd & Connie SW corner \$33,400
\$102,400

2018 Bridge Maintenance

LB-6

\$49,600

Located on Bittersweet Street over 7 Mile Creek; Deck Crack sealing is required for this bridge. Mud jacking for settled subbase is required at approaches. Sign (four) replacements; re-attach fencing; install steel tie-plates; barrier trans joint repair; riprap placement.

TOTAL CIP Budget 2018 \$721,000

2019 STREETS \$506,000

2019 Stormwater

American Ave. E. of Santa Fe St. \$ 82,500

105-117 Continental Dr \$ 16,500

\$99,000

2019 Bridge Maintenance

LB-3

\$38,000

Located on McIntyre Road tributary to Nine-Mile creek; Deck Crack sealing is required for this bridge. Remove 5 trees; clearing and chipping; concrete crack repairs, column and abutments.

TOTAL CIP Budget 2019 \$643,000

2020 STREETS	\$583,000	
2020 Stormwater McIntyre Rd., K-7 to 147 th	\$82,000	Aggregate Ditch Liner - drainage from 13968 to 14074
2020 Bridge Maintenance LB-4	\$32,000	Located at Mary Street on Nine-Mile Creek; Deck Crack sealing is required for this bridge. Post bridge with load limits.; concrete crack repairs, column and abutments. Riprap placement
TOTAL CIP Budget 2020	\$697,000	
2021 STREETS	\$598,000	
2021 Stormwater City Park W. of Bittersweet	\$99,000	Bank Stabilization (slide)
2021 Bridge Maintenance LB- 5	\$31,000	Located at Gilman over Nine Mile Creek; Deck Crack sealing is required for this bridge. Post bridge with load limits. Concrete crack repairs, column and abutments.
TOTAL CIP Budget 2021	\$728,000	

Recommendation is a flat \$750,000 per year

TOTAL 2023 CIP BUDGET	\$642,000
TOTAL 2023 CIP BUDGET	\$628,000
TOTAL 2024 CIP BUDGET	\$624,000
TOTAL 2025 CIP BUDGET	\$583,000
TOTAL 2026 CIP BUDGET	\$572,000

TEN-YEAR REHABILITATION PROJECTIONS

2022 STREETS

\$511,000

2022 Stormwater

105-117 Continental Dr

\$ 16,500

112 to 202 Fairlane Avenue

\$ 21,500

260 Holiday Drive

\$ 9,000

115 E. Kay Street

\$ 4,000

619 Meadowlark

\$ 25,000

619 Meadowlark

\$ 25,000

\$101,000

2022 Bridge Maintenance

LB-2

\$ 30,000

Located on a tributary leading to Nine-Mile creek on Desoto Road; Seal cracks in all four wing walls. Clean silt; riprap placement; Guardrail installation. Sign replacement.

TOTAL CIP Budget 2022

\$642,000

2023 STREETS	\$512,000	
2023 Stormwater		
23802 140th Street (Robin Rd & 140th Street)	\$ 99,000	
2023 Bridge Maintenance LB-7	\$17,000	Located at the main entrance road to Bernard Park Is a type of bridge that requires more detailed inspection including the regular inspection. Needing four sign replacements, guardrail installation.
TOTAL CIP Budget 2023	\$628,000	

2024 STREETS \$524,000
2024 Stormwater

234-242 HOLIDAY TERRACE REAR YARDS \$50,000

WYNDHAM HILL ALLYSSA COURT DETENTION \$50,000

\$100,000

TOTAL CIP Budget 2024 \$624,000

2025 STREETS \$566,000

2025 Stormwater

115 E. Kay Street \$4,500

108 Brookwood \$5,500

*Kay-KS/1st-2nd \$4,000

Alley between Lois and Kay St just east of 2nd \$3,000

\$17,200

TOTAL CIP Budget 2025 \$583,000

2026 STREETS

\$572,000

TOTAL CIP Budget 2026

\$572,000

ADDITIONAL PROJECT FUNDING REQUIRED BEYOND TEN-YEAR PLAN

CIP MAJOR PROJECTS

Outlets behind 801, 805 & 807 Cottonwood	\$168,000
7th St., Carol to Beth	\$220,000
Southfork 84" pipe	\$198,000
2nd St. & E. Mary	\$126,500
South Centre Drive Detention Wall	\$ 30,800
North Centre Drive Detention Wall	\$ 37,400
147th Street Culvert	\$250,000
Rock Creek West #5 Neighborhood	\$385,000
E. Side Fawn Valley Ct.	\$385,000
Ditchliner- Fairlane to Brookwood	<u>\$396,000</u>
	\$2,196,700.00

Future Additional New Sidewalk *second phase* to complete the Englewood -Continental loop to Ida has not yet been calculated, but would be included in this list also.

\$ undetermined

Land Acquisition \$ undetermined [future stormwater detention facility]

Potential Stormwater Study \$ 500,000.00 [Not recommended at this time]

Radar Controlled Intersections

- 4H and Main Street
- Mary and Main Street
- Ida and Main Street
- Fairlane and Main Street

Grand total Equip/Install =**\$152,000**

Crosswalk Installation and Equipment Installation

APS Pedestrian Pushbuttons
16"x18" Countdown Pedestrian Signals

\$19,200.00 per intersection
Or \$80,000 four intersections

Additional Crosswalk Striping Costs and possible pedestrian median and additional requirements currently unknown and will be driven by KDOT for 4H and Main street.

Conveyance Structures Identified but not yet quantified in cost or scope or in plan - 27 Crossings

[Exception 147th Street]

1. W McIntyre Rd
2. E McIntyre Rd
3. 147th Street South of Cottonwood Dr
4. 24583 147th Street
5. 25319 147th St
6. 25393 147th St
7. 147th St **\$250,000** replacement with 8'x8'RCB* [*listed below also*]
8. DeSoto Rd and 4-H Rd West side
9. DeSoto Rd and 4-H Rd East side
10. 834 4-H Rd
11. 811 4-H Rd
12. 26033 147th St
13. 272 DeSoto Rd
14. 422 DeSoto Rd
15. West end of Holiday Dr
16. 724 DeSoto Rd
17. East end of Sycamore Ridge
18. 916 DeSoto Rd
19. 323 Fairlane
20. 209 Valley Dr
21. 301 Ida
22. 903 Ida
23. 600 Connie **\$100,000**
24. 298 E Mary
25. 13621 Gilman Rd (2 pipes)
26. Fall Review
27. Fall Review
28. Fall Review
29. Fall Review

Arterial and Collector Stormwater easement study (to determine if there are easements for these crossings at the ends; 24 crossings: prepare and obtain needed easements).

It appears there are 57 parcels for easement determinations.

Total Professional Services + Title Commitments = **\$20,000**

Summary Statement

Staff is seeking the input from the City Council and desires a recommendation as to how to proceed with funding the projects that have been identified but are not part of the Ten-Year plan set forth herein.

We have suggested that a Task Force may be created in order to determine the best course of action.

The Ten-Year plan should be viewed as a flexible action plan.

Having only been with the City of Lansing for seven months, this is my best effort toward understanding asset conditions and keeping the City Council informed as to the state of these conditions for the identified public infrastructure.

Together we will find a way to provide the best solutions possible for the tasks at hand.

Respectfully submitted,

Jeff A. Rupp, Director of Public Works
September 23, 2016