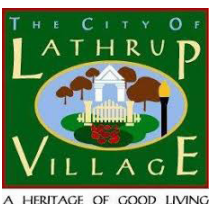




City of Lathrup Village 2020 Capital Improvement Plan



PREPARED FOR:

CITY OF LATHRUP VILLAGE
PLANNING COMMISSION
27400 SOUTHFIELD ROAD
LATHRUP VILLAGE, MI
48076

APRIL 2020

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Introduction

Introduction

The 2020-2025 City of Lathrup Village Capital Improvement Plan (CIP) will serve as a tool to assist the city in turning long-range policy planning into real improvements on the ground. A six-year capital improvement plan and an annual update of that plan is a requirement for the City of Lathrup Village under the Michigan Planning Enabling Act of 2008. The following report identifies the major capital improvements needed and/or planned for the community, the timeframe for implementation of those improvements, and the budget and revenue sources that will make those improvements a reality. Capital improvements cover multiple departments within the City of Lathrup Village and include new facilities, water and sewer line replacements and improvements, police equipment, parks and recreation facilities, non-motorized pathways, and professional services.



Drainage ditch repair (Giffels Webster, 2020)

WHAT IS A CAPITAL IMPROVEMENT PLAN (CIP)?

A Capital Improvement Plan is a six-year schedule of public physical improvements which identifies the needs for improvements and the sources of funding to make those improvements. It provides a schedule of expenditures for constructing, maintaining, upgrading, and/or replacing a community's physical inventory. The CIP, therefore, is a tool to assess the long-term capital project requirements (the "big jobs") of Lathrup Village. Since capital improvement projects are spread across multiple community needs (fire protection, police, water and sewer, parks and recreation, municipal administration, etc.), the CIP prioritizes these projects across the entire community and over time, providing a comparison of the community's various needs and wants.



City Street in Lathrup Village (Giffels Webster, 2020)

WHAT ARE CAPITAL IMPROVEMENT PROJECTS?

Capital improvement projects are major and infrequent expenditures, such as the construction of a new facility, a major rehabilitation or repair of an existing facility, or the purchase of major equipment. Capital improvement projects are non-recurring expenditures that tend to be large both in physical size and in cost, and have a long-term usefulness (10 years or more) . Examples of capital improvement projects can include:

- Construction of a new city hall
- Construction of a new police station
- Extension or replacement of a water/sewer line
- Major rehabilitation of a city's community center
- Creation of a new city park
- Large equipment and vehicles



Lathrup Village DPS yard (Giffels Webster, 2020)

Each city department is asked to take a long view look at future initiatives or improvements that may require capital purchases in order to be fully implemented. Each department works to improve the manner by which the city delivers services to its residents and stakeholders. Lists of need are developed based on research and discussions with communities that have similar needs. The majority of the capital purchases in these categories are funded through the general fund or other dedicated city funds. Thorough knowledge and research of our future planned costs allows for the pursuit of grant and other outside funding sources to meet our policy goals. The following sections discuss the city's various needs and proposed funding by department.

The term "major expenditure" is relative; what is "major" to one community might be "minor" to another. The City of Ann Arbor, for example, sets a minimum threshold of \$100,000 for projects to be included in the City's CIP, while the City of Rochester Hills sets a minimum of \$25,000. Lathrup Village's policy for determining a Capital Improvement is defined in the following section.

WHAT IS THE CITY OF LATHRUP VILLAGE'S CAPITAL IMPROVEMENT POLICY (CIP)?

A capital improvement project is a major, nonrecurring expenditure that meets one of more of the following criteria:

- Any acquisition of land for a public purpose which costs \$5,000 or more.
- Any construction of a new public facility (city building, water/sewer lines, pathways), or any addition to an existing public facility, the cost of which equals \$5,000 or more and has a useful life of three or more years.
- A nonrecurring rehabilitation (not to include annual/recurring maintenance) of a building, its grounds, a facility, or equipment, the cost of said rehabilitation being \$5,000 or more with a useful life of three or more years.
- Purchase of major equipment which, individually or in total, cost \$5,000 or more with a useful life of three or more years.

Planning, feasibility, engineering, or design studies related to an individual capital improvement project, or program implemented through individual capital improvement projects, with a cost of \$5,000 or more and a useful life of three or more years.

WHAT IS THE ROLE OF THE CITY PLANNING COMMISSION IN THE CIP PROCESS?

The Capital Improvement Program is a dynamic planning document, intended to serve as a tool to implement the City of Lathrup Village's Master Plan. The Master Plan should correspondingly include capital improvement projects as well as guide long-term capital planning. The Planning Commission is uniquely qualified to manage the development and annual update of the City's CIP, based on their role in creating and updating the city's Master Plan. The Planning Commission's role will ensure that public works projects are consistent with the land uses identified within the Master Plan. By making a recommendation of approval for the CIP to the City Council, the Planning Commission agrees that the projects outlined within it reasonably address the city's capital improvement needs.



Lathrup Village public safety vehicles (Giffels Webster, 2020)



Lathrup Village 2019 CIP (Giffels Webster, 2020)

The CIP is an essential link between planning for capital improvement projects and budgeting for them. Once approved by the City Council, the CIP can be used to develop the capital project portion of the city's budget. Those projects included in the CIP's first year (2020) potentially form the basis for the upcoming year's capital project budget. As the CIP is annually updated, a continuous relationship will be maintained between the CIP and the city's annual budget. The annual update to the CIP will typically occur in advance of the preparation of the city's budget.

WHAT ARE THE BENEFITS OF PREPARING A CAPITAL IMPROVEMENT PLAN?

- Prudent use of taxpayer dollars
- Prioritizing projects across the needs of the community and across departments (an "apples-to-apples" comparison)
- Generating community support by inviting public input
- Promoting economic development
- Improving the city's eligibility for State and Federal grants
- Providing an implementation tool for the goals and objectives of the city's Master Plan
- Transparency in identification of high-priority projects
- Coordination / cost-sharing between projects



Lathrup Village DPS yard (Giffels Webster, 2020)



Damaged storm sewer culvert (Giffels Webster, 2020)

Program Areas

Program Areas

The following sections outline the Program Areas of the City of Lathrup Village's CIP:

1. Data Collection Process
2. Data Compilation Process
3. CIP Adoption Process

The components of the CIP are compiled and reported by Program Areas. The following table (Figure 1) displays the Program Areas used in this CIP (each assigned with a color). These program areas represent the stakeholders in the CIP.

FIGURE 1 CIP PROGRAM AREAS	
AD	Administrative
DPS	Department of Public Services
DDA	Downtown Development Authority
PR	Parks & Recreation
PD	Police Department
R	Roads
S	Sewer
W	Water

1. DATA COLLECTION. Each of the stakeholders outlined above has either a master plan or schedule that defines the needs and resource level within their respective area of responsibility. To more easily identify projects, standard forms were created that allow the stakeholders to define their projects and resource allocation levels. The standard forms used for data collection are found in the Appendix.



Sarackwood Park (Google, 2020)

Capital Project Request

Section 1

Project Title: _____ Department: _____

Prepared By: _____ Date Prepared: _____

Contact Information

Email: _____ Contact Person: _____

Phone: _____

Section 2

Project Description: Provide a brief description of the project

Section 3

Cost and recommended sources of funding

Budget Fiscal Year	Estimated Cost	Recommended Source of Financing (Include matching funds, if any, required for grants)
2019-2020 FY	_____	_____
2020-2021 FY	_____	_____
2021-2022 FY	_____	_____
2022-2023 FY	_____	_____
2023-2024 FY	_____	_____
2024-2025 FY	_____	_____
TOTAL	_____	_____

Impact on Operating Budget: _____

Please complete back of form and note result here

Section 4

Project Ranking: (Please see form D for project ranking details and then select one below)

Priority 4: Essential ☐

Priority 3: Desirable ☐

Priority 2: Acceptable ☐

Priority 1: Deferable ☐

Capital Project Request form

A definition of the standard CIP forms is provided as follows:

- **PROJECT APPLICATION FORM** - Consists of project descriptions, schedules, necessity, and possible sources of funding. The information provides an understanding of the overall scope of each project and how it is valued within its program area and within the City. While stakeholders may be aware of major projects further out on the horizon, only those planned for within the six-year window of the 2020-2026 CIP were included.
- **PROJECT COST DETAIL FORM** - Consists of a matrix of six (6) budget years across the top of the form and a listing of costing components along the side of the form. The form is split into two (2) parts; the upper half is the capital cost for the project and the lower half is the cost of operations or maintenance for that project if applicable. Recognition of the operations and maintenance costs of a project is a valuable tool in forecasting future needs for resource allocation. Investment in a new facility is only worthwhile if there are funds available to operate and maintain it.
- **PROJECT RATING FORM** - This form is used when new projects are identified but cannot all be funded within a given fiscal year. The forms are used to rate both the importance and impact of a project within its program area and within the city. The ratings are weighted with emphasis given to those projects that are mandated by law, by agreement, or because they are a matter affecting health safety and welfare. Projects without a ranking were not competing for funding, either because they are mandatory or because no other similar projects were proposed.

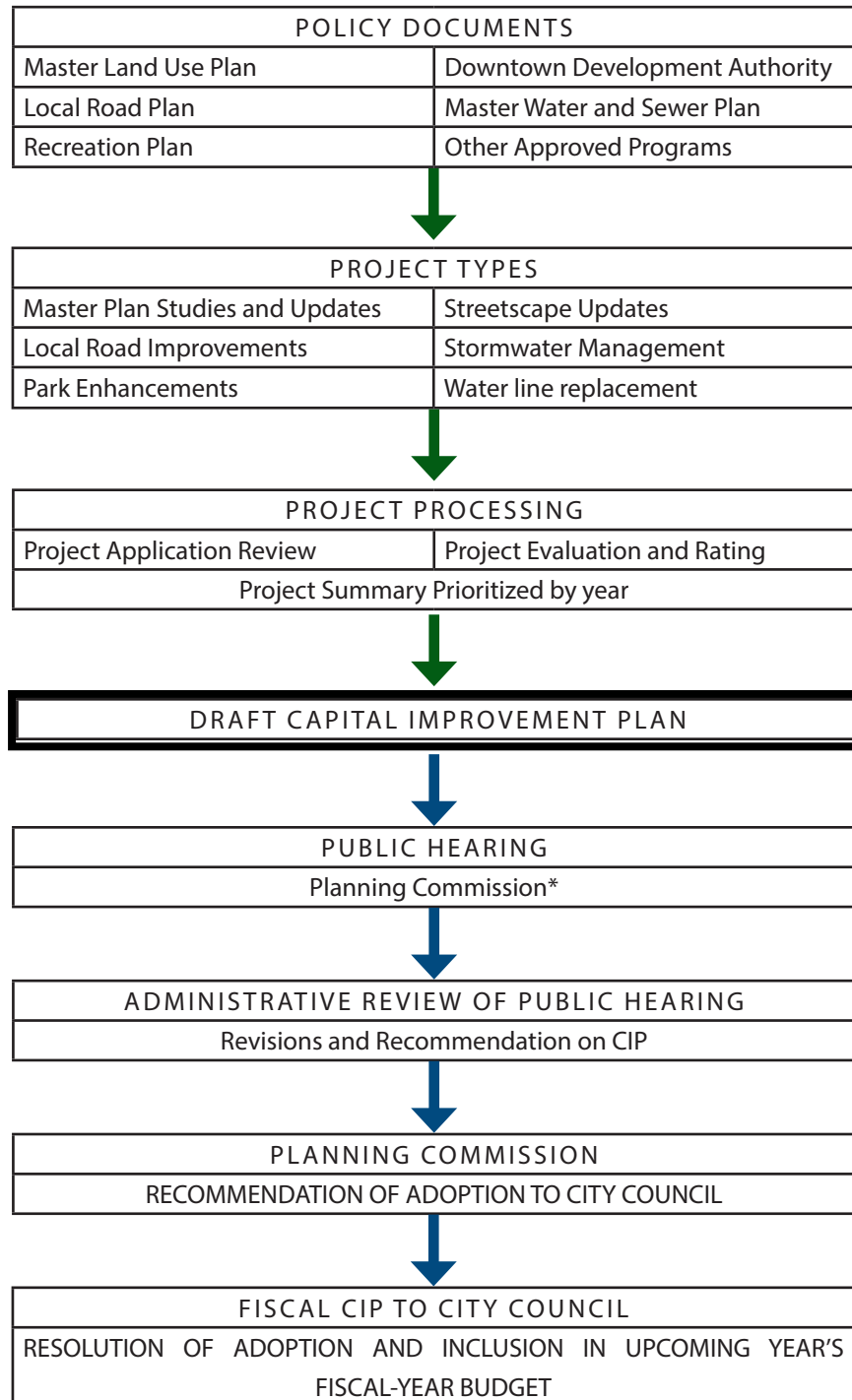
2. **DATA COMPILATION.** The information received from the stakeholders has been compiled into a Project Summary Worksheet. This worksheet contains all of the projects in the CIP over six (6) budget years with a cost summary of each budget year by program area and for the entire CIP. Included with the worksheet is the listing of possible funding sources and an estimate of the city's share for each project. The project summary worksheet can be found in the Appendix of this CIP.



Lathrup Village welcome sign (Giffels Webster, 2020)

Figure 2 - CIP Adoption Process

3. CIP ADOPTION PROCESS. The adoption process involves a public hearing to solicit citizen input. The CIP will then be modified (if necessary), approved by the city Planning Commission (via a formal recommendation for approval to the City Council), and forwarded to the City Council for adoption. Adoption of the CIP by the City Council does not constitute an authorization to commit resources to any project. This approval is recognition of a plan for projects within the community that may move toward implementation in the future. The projects included within Year 1 of the Capital Improvement Plan potentially form the basis for the upcoming year's capital projects budget. An outline of the process is displayed in Figure 2 on the following page.



* The Public hearing was held by the City Council as part of their budget adoption due to timing. The Planning Commission reviewed and recommended adoption of the 2020 CIP at their April 202 meeting

Project Inventory

Below is a summarized list of all projects considered for the 2020 Capital Improvement Plan. Project details are shown on the following pages; they can also be viewed online via the [Interactive CIP Dashboard Map](#).

Project Number	Name	Fiscal year start	Funding source	Total
Administrative				
AD20-01	Monitors	2020/2021	General	\$14,171
Administrative Total				\$14,471
Department of Public Services (DPS)				
DPS20-01	New Parking Lot - DPS	2020/2021	TBD	\$60,000
DPS20-02	Backhoe tractor	2020/2021	TBD	\$100,000
DPS20-03	Leaf Vac	2021/2022	TBD	\$40,000
DPS20-04	Hotpatch Trailer	2022/2023	TBD	\$7,500
DPS20-05	Flatbed/dumpbox	2022/2023	TBD	\$15,000
DPS20-06	New roof	2023/2024	TBD	\$30,000
DPS20-07	4WD Pick-up truck	2024/2025	TBD	\$45,000
DPS Total				\$297,500
Downtown Development Authority (DDA)				
DDA20-01	Hanging Flower Baskets	2020/2021	DDA Funds	\$6,700
DDA20-02	Light Pole Banners	2020/2021	DDA Funds	\$4,185
DDA20-03	Southfield Rd ROW parking	2020/2021	DDA Funds	TBD
DDA20-04	Complete Streets - DDA share	2020/2021	DDA Funds	\$6,300
DDA20-05	Bus Stop Improvements	2020/2021	DDA Funds	\$5,000
DDA Total				\$41,105
Parks and Recreation (P&R)				
PR20-01	Park Investment Package	2020/2021	General Fund	\$20,000
PR20-02	Community Vegetable Garden	2020/2021	General Fund	\$8,000
PR20-03	Dog Park Pre-planning	TBD	TBD	TBD
PR20-04	Splash Pad Study and Planning	TBD	TBD	TBD
PR20-05	Goldengate Park Update Study and Planning	TBD	TBD	TBD
PR20-06	Replace Sarackwood Playground Equipment	TBD	TBD	TBD
PR20-07	Construction of Dog Park	TBD	TBD	TBD
PR20-08	Goldengate Park Remodel	TBD	TBD	TBD
PR20-09	Acquisition and Development of Southeast Quadrant Park	TBD	TBD	TBD
P&R Total				\$28,000
Police				
P20-01	Axon Taser	2020/2021	Police	\$8,900
P20-02	Patrol Vehicle	2021/2022	Police	\$45,000
P20-03	Speed Trailer	2020/2021	Police	\$8,000
P20-04	Mobile Radios	2021/2022	Police	\$30,000
P20-05	New Police Station Study	2021/2022	Police	\$5,000
Police Total				\$96,900

INTERACTIVE CIP DASHBOARD URL:

<https://oakgov.maps.arcgis.com/apps/opsdashboard/index.html#/45dd43a3429a404b9d8287f40d2e7d57>

Project Inventory - continued

Project Number	Name	Fiscal year start	Funding source	Total
Roads				
R20-01	Matching TIP Funds	2020/2021	General Fund	\$13,3,000
R20-01	2020 Paving Program	2020/2021	Local/Major Road Fund	\$250,000
R20-02	2021 Paving Program	2021/2022	Local/Major Road Fund	\$250,000
R20-03	2022 Paving Program	2022/2023	Local/Major Road Fund	\$250,000
Roads Total				\$767,300
Sanitary Sewer				
S20-01	2020 Sewer Improvements	2020/2021	Sewer	\$120,000
S20-02	2021 Sewer Improvements	2021/2022	Sewer	\$120,000
S20-03	2022 Sewer Improvements	2022/2023	Sewer	\$120,000
Sanitary Sewer Total				\$360,000
Water				
W20-01	2020 Water Main Repair Program (II of III)	2020/2021	Water fund	\$400,000
W20-02	2020 Water Main Repair Program (III of III)	2021/2022	Water fund	\$180,000
W20-03	2021 Water Main Repair Program	2021/2022	Water fund	\$325,000
W20-04	2022 Water Main Repair Program	2022/2023	Water fund	\$475,000
W20-05	2023 Water Main Repair Program	2023/2024	Water fund	\$475,000
W20-06	Gate Vale Replacement	2021/2025	Water fund	\$960,000
W20-07	Fire Hydrant Replacement Program	2021/2022	Water Fund	\$544,000
W20-08	Lead and Copper Investigation	2021/2022	Water fund	\$250,000
W20-09	Lead and Copper Investigation	2022/2023	Water Fund	\$250,000
Water Total				\$3,609,000
ALL PROJECT TOTAL				\$5,274,976

INTERACTIVE CIP DASHBOARD URL:

<https://oakgov.maps.arcgis.com/apps/opsdashboard/index.html#/45dd43a3429a404b9d8287f40d2e7d57>

Administrative

The City Administrator is responsible for the efficient administration of all City Departments, ensuring all laws and ordinances are enforced, development of an annual budget, and maintenance of an accounting system that shall conform with the laws and generally accepted accounting principles. The administrative departments include the office of the City Administrator, Treasurer, City Clerk, and the City's boards and commissions. This category also includes general inter-departmental needs such as copiers, printers and other office equipment.

AD20-01		Monitors
Project Year:	2020/2021	Purchase of new audio and visual equipment for City Hall
Estimated Cost:	\$ 14,171	
Funding Source:	General	
Ranking:	TBD	



Lathrup Village City Hall (Giffels Webster, 2019)

Department of Public Services

Lathrup Village has maintained a contract with the private company Lathrup Services to manage all of its public service provisions. Services such as water main repair, snow plowing, landscaping and general maintenance and repairs fall into this category.

DPS20-01		New Parking Lot - DPS
Project Year:	2020-2021	Entire DPS parking lot is falling apart and salt/dirt are getting into the storm sewers. It is hard to maneuver and is unsafe.
Estimated Cost:	\$60,000	
Funding Source:	General Fund	
Ranking:	TBD	
DPS20-02		Backhoe Tractor
Project Year:	2021-2022	Current tractor is 12 years old and in need of replacement.
Estimated Cost:	\$100,000	
Funding Source:	General Fund	
Ranking:	TBD	
DPS20-03		Leaf Vac
Project Year:	2021-2022	Newest vac is three years old; next oldest is 12 years old and needs to be moved to backup status to ensure continuation of leaf program.
Estimated Cost:	\$40,000	
Funding Source:	General Fund	
Ranking:	TBD	
DPS20-04		Hot-patch Trailer
Project Year:	2022/2023	A new trailer is needed to keep patch pliable and speed up the process of keeping roads in good condition.
Estimated Cost:	\$7,500	
Funding Source:	General Fund	
Ranking:	TBD	
DPS20-05		Flatbed dump-box
Project Year:	2022/2023	
Estimated Cost:	\$15,000	
Funding Source:	General Fund	
Ranking:	TBD	
DPS20-06		New Roof for DPS building
Project Year:	2023/2024	
Estimated Cost:	\$30,000	
Funding Source:	General Fund	
Ranking:	TBD	

DPS20-08		New 4WD Pick-up truck
Project Year:	TBD	Current truck is from 2006 and is in need of replacement
Estimated Cost:	TBD	
Funding Source:	General Fund	
Ranking:	TBD	



Lathrup Village DPS pick-up truck (Giffels Webster, 2020)



Lathrup Village DPS yard - rear parking lot (Giffels Webster, 2020)



Lathrup Village DPS yard - entrance and front parking lot (Giffels Webster, 2020)

Downtown Development Authority - Equipment

The DDA has proposed improvements to Southfield Road at the gateways to the City as incremental improvements while the Southfield Road improvement project awaits federal funding priority. These projects will bolster economic development efforts to keep Lathrup Village competitive and attractive for business development. Streetlight Improvements include transitioning street lights to LEDs and installment of additional streetlights in the Village Center, which will improve lighting and create a more walkable, safe, downtown.

DDA20-01		Hanging Flower Baskets
Project Year:	2020/2021- 2024/2026	Purchase of 25 Flower baskets, soil and flowers (\$6,700) and six years of maintenance at \$350 annually (including 2020)
Estimated Cost:	\$8,800	
Funding Source:	DDA Funds	
Ranking:	3	
DDA20-02		Light Pole Banners
Project Year:	2020/2021	Purchase of 20 light pole banners for placement on light poles within the DDA. Includes \$1,920 equipment purchase FY 2020-2022 and \$2,150 annual instillation cost (six years)
Estimated Cost:	\$19,005	
Funding Source:	DDA Funds	
Ranking:	3	



Existing Light pole banner on Southfield Road (Giffels Webster, 2020)

Downtown Development Authority - Capital Projects

DDA20-03		Southfield Road ROW parking
Project Year:	2021 - 2025	This proposed project intends to begin mitigating anticipated PROW parking loss as a result of the Southfield Road widening/reconstruction. There is an estimated 135 needed (27 spaces a year x 5 years). Federal funds may become available in 2021 that would help offset the cost to the city.
Estimated Cost:	\$771,585 (\$154,317 annually)	
Funding Source:	TBD	
Ranking:	4	
DDA20-04		Complete Streets - DDA atch
Project Year:	2020/2021	Implement complete streets city-wide bicycle route wayfinding elements. Plan includes pavement markings, signage and bike repair kiosks. The city received \$60,00 in grant funds (Act 51 and TAP) and is paying a matching \$20,000 (\$6,700 from DDA and \$13,300 from General Fund) for a total of \$80,000.
Estimated Cost:	\$6,700	
Funding Source:	DDA Funds	
Ranking:	3	
DDA20-06		Bus Stop Improvements
Project Year:	2020 - 2026	Upgrade and enhance bus stops within the city to provide a safer and more attractive transit experience for riders.
Estimated Cost:	\$5,000	
Funding Source:	DDA Funds	
Ranking:	4	



Example of Bike repair kiosk (Source: Dero - Fixit)



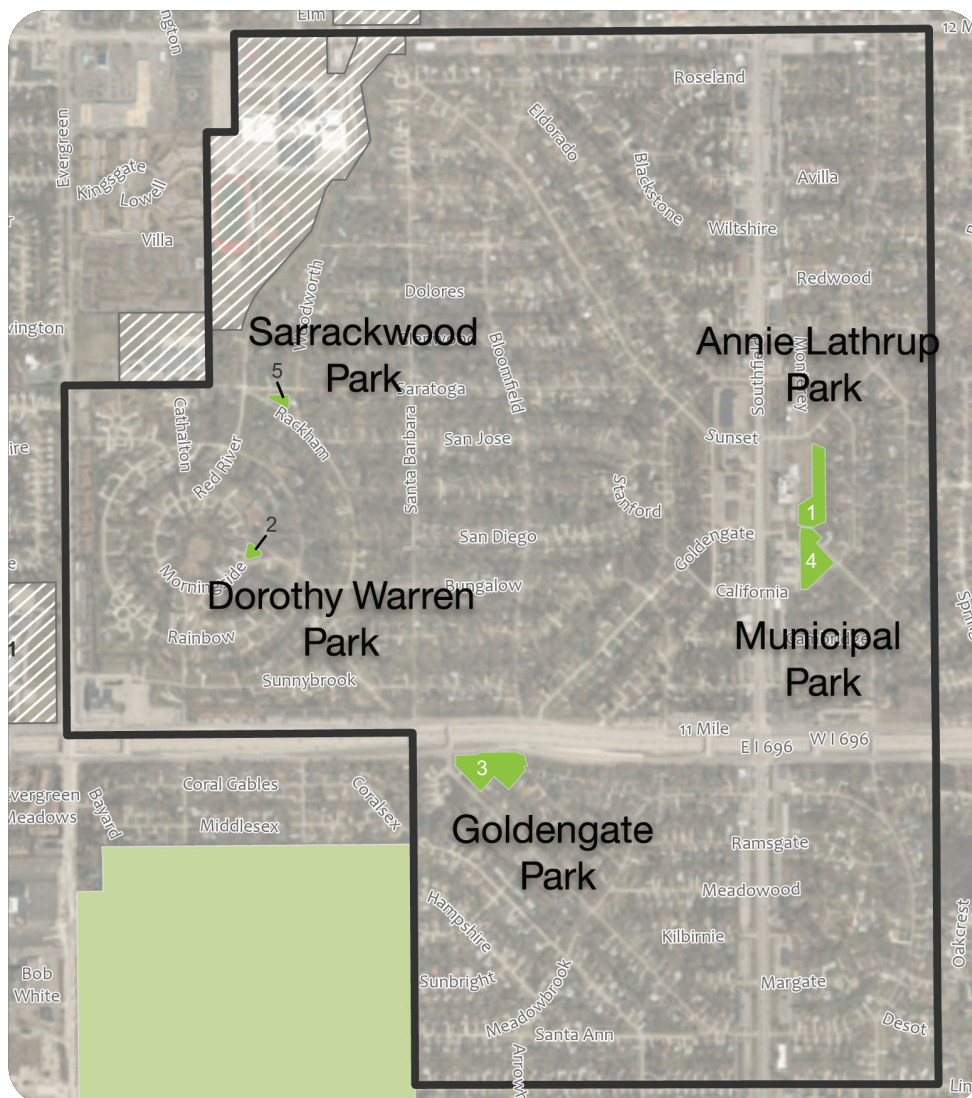
Existing bus stops on Southfield Road in need of safety upgrades (Giffels Webster, 2020)

Parks and Recreation

The Recreation Department includes upgrades to City Parks, Community Room, and Fitness Center. The City's parks are in need of restoration and upgrades to maintain safety and accessibility. Several parks are in need of additional wood chips and landscaping around play equipment in order to ensure safety of use. Drainage improvements around recreational amenities are additionally needed to reduce instances of standing water and to protect accessibility.

PR20-01		Park Investment Package
Project Year:	2020/2021	Improvements to Municipal, Lathrup, Sarrackwood, Warren and Goldengate Parks.
Estimated Cost:	\$20,000	
Funding Source:	General Fund	
Ranking:	TBD	
PR20-02		Community Vegetable Garden
Project Year:	2020/2021	Establish a community vegetable garden in Municipal Park to the north of City Hall (or another location if the area is not suitable).
Estimated Cost:	\$8,000	
Funding Source:	General Fund	
Ranking:	TBD	
PR20-03		Dog park pre-planning
Project Year:	TBD	To move forward with constructing a dog park, we need professional planning to determine the best location and design as well as what budget and timeline are practical.
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	
PR20-04		Splash Pad Study and Planning
Project Year:	TBD	Determine if a splash pad would be a good investment for the city, what the best location would be and what it would cost.
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	
PR20-05		Goldengate Park Update Study and Planning
Project Year:	TBD	Professional planning to determine feasibility, design, costs and plans for upgrades to Goldengate Park. Upgrades could include addition of naturescapes along the northern wall, water access, a pavilion or volleyball court, electrical access, removal of barriers, signage and an expanded parking lot.
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	
PR20-06		Replace Sarackwood Playground Equipment
Project Year:	TBD	Replace the worn out playground equipment at Sarrackwood Park with a new, inclusive model.
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	

PR20-07		Construction of Dog Park
Project Year:	TBD	Construction and opening of dog park
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	
PR20-08		Goldengate Park Remodel
Project Year:	TBD	Revitalization of Goldengate Park
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	
PR20-09		Acquisition and Development of SE quadrant park
Project Year:	TBD	Acquire the land and develop a park in a currently vacant, private-owned property lot in the Southeast quadrant of the city. The lot is a little less than an acre in size. Project cost would depend on the types of features desired in the park.
Estimated Cost:	TBD	
Funding Source:	TBD	
Ranking:	TBD	



Lathrup Village Parks (Giffels Webster, 2020)

Police

The Lathrup Village Police Department offers full policing services to its residents including routine patrol, traffic enforcement, detective services, community relations, and other specialized functions. Lathrup Village holds the distinction of being one of the Oakland County's safest cities.

P20-01		Axon Taser
Project Year:	2020/2021- 2021-2022	Tasers increase officer safety and reduce liability to department by reducing lethal force. This funding request is for two years at \$4,450 per year.
Estimated Cost:	\$8,900	
Funding Source:	Police	
Ranking:	TBD	
P20-02		Patrol Vehicle
Project Year:	2021/2022	Need to replace older unit in fleet
Estimated Cost:	\$45,000	
Funding Source:	Police	
Ranking:	TBD	
P20-03		Speed Trailer
Project Year:	2020/2021	
Estimated Cost:	\$8,000	
Funding Source:	Police	
Ranking:	TBD	
P20-04		Mobile Radios
Project Year:	2021/2021	Police communication equipment is needed for patrol vehicles and offices prep radios
Estimated Cost:	\$30,000	
Funding Source:	Police	
Ranking:	TBD	
P20-05		New Police Station Study
Project Year:	2021/2022	A study i need to determine where a larger police building could possibly be located. A new facility is needed to accommodate growth - the current station is at capacity.
Estimated Cost:	\$5,000	
Funding Source:	Police	
Ranking:	TBD	

Roads

The City of Lathrup Village has 26.2 miles of local roads and 7.36 miles of major streets. In each year since 2012, the city has dedicated an equivalent of 1.5 to 2 mils of taxable value to repaving local roads. While this did constitute a major increase in funding from previous years, it should be noted that based on the engineer's industry experience, the entire street system should be put on a 15-20 year resurfacing cycle. The overall goal is to provide an adequate level of road maintenance within the local street system; however, based on the long term estimates, a 20-year resurfacing cycle would require an annual contribution of \$495,000+ (or approximately 4.2 mils) and adjusted in each subsequent year based on inflation. This will require ongoing discussion and policy-setting by City Council.

R20-01		Complete Streets - City match
Project Year:	2020/2021	Implement complete streets city-wide bicycle route wayfinding elements. Plan includes pavement markings, signage and bike repair kiosks. The city received \$60,00 in grant funds (Act 51 and TAP) and is paying a matching \$20,000 (\$6,700 from DDA and \$13,300 from General Fund) for a total of \$80,000.
Estimated Cost:	\$13,300	
Funding Source:	General Fund	
Ranking:	3	
R20-02		2020 Paving Program
Project Year:	2020-2021	Santa Barbra road repair project.
Estimated Cost:	\$250,000	
Funding Source:	Local/Major Roads	
Ranking:	TBD	
R20-03		2021 Paving Program
Project Year:	2021/2022	TBD road repair
Estimated Cost:	\$250,000	
Funding Source:	Local/Major Roads	
Ranking:	TBD	
R20-04		2022 Paving Program
Project Year:	2022/2023	TBD road repair
Estimated Cost:	\$250,000	
Funding Source:	Local/Major Roads	
Ranking:	TBD	

Sewer

SANITARY SEWER

The Lathrup Village sanitary sewer system consists of approximately 145,000 linear feet (lft) of sewers ranging in size from 8 inch to 24 inches in diameter. Of the 145,000 lft of sewer, the older portion of the system is comprised of approximately 118,900 (82%) of vitrified clay pipe, while the newer portion of the system is comprised of approximately 26,100 (18%) lft of concrete pipe. Constructed in the 1920's as a combined sewer system, the city converted it to a dedicated sanitary sewer system in the 1960's (meaning that storm water and sanitary water are not permitted to mix). It is believed that all residents and businesses within the city are connected to the sanitary sewer and there are no active septic systems. Since the City of Lathrup Village reached its full development capacity the sanitary sewer system covers the entire city with no need for expansion.

During the construction of I-696, the system was severed and divided into a northern and a southern system that are metered and discharged into the Evergreen Farmington Sewage Disposal System (EFSDS). The sewer system north of I-696 is routed to a 3-million-gallon retention tank which is located at the west end of Sunnybrook, near Evergreen Road north of I-696. This facility is currently receiving significant maintenance and repair in order to safeguard the operation of the system.

In 2012 and 2013, all sanitary sewers on the south side of I-696 were cleaned and visually inspected for apparent structural failures and signs of inflow and infiltration (I & I) and found that approximately 66% of the sewers that were assessed were in need of repairs. The city engineer recommended that Lathrup Village repair the identified sewers in an effort to provide structural improvements to sewers with multiple cracks within the sewer segment and reduce the amount of infiltration of ground water. According to the project's final report, the majority of the defects can be addressed by either grouting the sewer joints or by installing cured-in-place pipe (CIPP). The following map depicts the sewers locations recommended for either joint-grouting or CIPP.

The City of Lathrup Village sewer system is a separated system but still considered a "wet" system due to the presence of footing drains. The City's upgrades and maintenance over the past 15 years has been done with the primary goal of "drying out" or removing the ground and storm water from the system; however, recent studies by the Oakland County Water resource commissioner's office has called into question the effectiveness of relining sewer mains and grouting joints as a method of lowering inflow and infiltration (I & I). Their current hypothesis is that the sanitary sewer leads and footing drains contribute enough I & I to negate any benefits gained from sealing sewer mains. The relining process does add structural integrity to the system which prevents against failures and collapse. The cost of sanitary sewer capital projects is calculated into annual sewer rates and paid through monthly water and sewer billing.

STORM SEWER

Of the four infrastructure categories of public infrastructure (sanitary sewer, storm sewer, roads and water), the city's storm sewer system has received the least amount of resources and attention in the last decade. Upkeep of ditches, culverts, and drains found in the right-of-way is, by City ordinance, the responsibility of the adjoining property owner.

For many blocks, ditches have not been properly maintained and the culverts have become damaged or have been shifted by the freeze/thaw cycle rendering them unable to perform their function. The result is a storm system that functions at a level below full capacity and leaves standing water in ditches for days following rainstorms. Poor maintenance on culverts have left them slow to drain or impassible, preventing storm water from reaching the proper drains which send water to the Rouge River. The current state of the storm and ditch system impacts the subsurface ground water levels and the volume of flow in the city's sanitary sewer system.

Over the next six years, an aggressive maintenance and re-ditching program will be implemented through our contract with Lathrup Services LLC. Given the scope of the repairs that are needed, this program could take over ten years to complete. Areas where ditches could be enclosed with corrugated drain pipes will also be studied. There was a successful pilot project on the 17300 section of Rainbow Drive, which included new approach work. If the success of that project can be replicated through cost sharing or a specific millage, the city may be able to remove the need for homeowner ditch maintenance.

S20-01		2020 Sewer CCTV
Project Year:	2020-2021	Includes the cost to clean, televise and design sewer improvements based on findings.
Estimated Cost:	\$120,000	
Funding Source:	Sewer Fund	
Ranking:	TBD	
S20-02		2021 Sewer Improvements
Project Year:	2021-2022	Perform repairs found during the 2020 CCTV
Estimated Cost:	\$120,000	
Funding Source:	Sewer Fund	
Ranking:	TBD	
S20-03		2022 Sewer Improvements
Project Year:	2022-2023	Perform repairs found during the 2020 CCTV
Estimated Cost:	\$120,000	
Funding Source:	Sewer Fund	
Ranking:	TBD	

Water

W20-01		2020 Water Main Repair Program (II of III)
Project Year:	2020-2021	Install approx. 1,700' of NEW 12" water main from San Quentin to Wiltshire (Santa Barbara Phase II of III) (Includes 7% engineering fee)
Estimated Cost:	\$400,000	
Funding Source:	Water Fund	
Ranking:	TBD	
W20-02		2021 Water Main Repair Program (III of III)
Project Year:	2021-2022	Install approx. 1,700' of NEW 12" water main from Wiltshire to 12 Mile. (Santa Barbara Phase III of III) (Includes 7% engineering fee)
Estimated Cost:	\$180,000	
Funding Source:	Water Fund	
Ranking:	TBD	
W20-03		2021 Water Main Repair Program
Project Year:	2021-2022	Replace approx. 1,300' of existing 6" water main (1928) located in San Diego from Rackham to Bloomfield (San Diego Phase I of II) (Includes 7% engineering fee)
Estimated Cost:	\$325,000	
Funding Source:	Water Fund	
Ranking:	TBD	
W20-04		2022 Water Main Repair Program
Project Year:	2022-2023	Replace approx. 1,900' of existing 6" deteriorated water main on San Rosa and Wiltshire (Southfield to Lathrup) . (Includes 7% engineering fee)
Estimated Cost:	\$475,000	
Funding Source:	Water Fund	
Ranking:	TBD	
W20-05		2023 Water Main Repair Program
Project Year:	2023-2024	Replace approx. 1,900' of existing 6"/8" deteriorated water main on Lincoln East (Southfield to city border). (Includes 7% engineering fee)
Estimated Cost:	\$475,000	
Funding Source:	Water Fund	
Ranking:	TBD	
W20-06		Gate Valve Replacement
Project Year:	2021-2026	The City's gate valves are very old and do not close correctly. Budget for the replacement of 27 valves per year for 6 years to replace all gate valves installed before 1930 . Useful life is 50 years.
Estimated Cost:	\$960,000 (\$160K x 6 years)	
Funding Source:	TBD	
Ranking:	TBD	

W20-07		Fire Hydrant Replacement Program
Project Year:	2021 - 2025	The City's fire hydrants are very old and experiencing operational issues. Budget for the replacement of 20 hydrants per year for 6 years to replace all hydrants installed before 1930 . Useful life is 50 years. (\$90,800 annually x 6 years)
Estimated Cost:	\$544,000	
Funding Source:	TBD	
Ranking:	TBD	
W20-08		Lead and Copper detection
Project Year:	2021/2022 - 2022/2023	Budget for right-of-way material verification in 2021 and 2022 (\$250,000 per year x two years)
Estimated Cost:	\$500,000	
Funding Source:	TBD	
Ranking:	TBD	

